Sept. 19, 1933. L. JOHN 1,927,455

TOOTHPICK

Filed Jan. 11, 1933

Fig. 1.

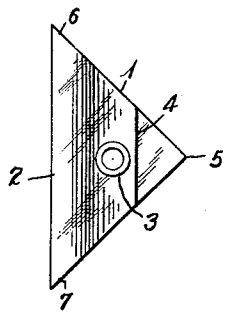


Fig. 2.

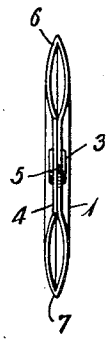


Fig. 3.

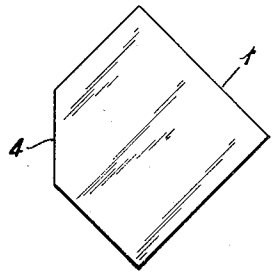
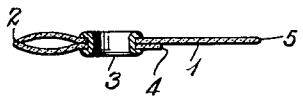


Fig. 4.



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TOOTHPICK

Lillian John, New York, N. Y.

Application January 11, 1933. Serial No. 651,197

12 Claims. (Cl. 132—93)

This invention relates to improvements in devices for removing the food particles and other accretions from inter-dental spaces, and has for its object to provide an appliance possessing the advantages of increased effectiveness and economy and decreased danger over the devices which have been used for this purpose from time immemorial.

The toothpicks known to the art are of two classes, the solid type and the scoop type. In the former class are to be found slivers of wood or metal, either rounded or pointed or flat and possessing a narrow edge at one or both ends; and also flosses and strings, waxed or otherwise, the effectiveness of such solid type of toothpick being merely to dislodge accretions without providing adequate means for their removal. In the second, or scoop class, are to be found quills cut in various shapes and usually having pointed ends anterior to partially enclosed cavities which act as scoops and provide temporary storage places for the dislodged accretions.

Toothpicks of the scoop type possess the advantage of greater effectiveness over those of the solid type, but suffer the disadvantage of increased cost and difficulties incident to sterilization. A common disadvantage of both of these types is that the unyielding nature of the material of which they are composed is likely to do injury to both teeth and gums as well as to render them ineffective in cleaning the minute hollows which exist in all interdental spaces.

Further, the long, narrow shape in which these devices have always been formed provides a poor leverage for the pointed end caught in narrow interdental spaces and often results in breakage of the pick, and in leaving the tip end tightly wedged between the teeth.

The present invention provides an appliance of the scoop type in which the accretions are not only loosened but removed, the structure being such as to prevent breakage and to provide a more efficient scoop than that of the quill, without resorting to stiff or rigid materials, while the whole may be instantly cleaned by immersion in running water.

An object of my invention is to provide a toothpick overcoming the disadvantages of the commonly used devices aforesaid, which is constructed of a sheet of extremely thin and flexible material bent upon itself to form two opposed flexible scoop ends and which is readily compressible along the line of the fold or bend whereby the point, when inserted in the interdental space, is capable of compressing and conforming to the various changes in contour met within the space.

Another object of the invention is to provide in addition to the two scoop ends, an extra solid pointed end suitable for use in extremely narrow interdental spaces and which may function, additionally, in a manner similar to dental floss, for manipulation between the spaces of teeth for dislodging solid particles therefrom which cannot easily be removed by the compressible scoop ends.

Another object of the invention is to provide an inexpensive, conveniently carried device which has the capability of quick and satisfactory cleansing simply by immersing the same in water or exposing it to a stream of running water.

Fig. 1 is a side view of the toothpick;

Fig. 2 is an end view of the toothpick;

Fig. 3 is a view showing the blank from which the toothpick is made;

Fig. 4 is a horizontal sectional view of Fig. 1.

In the manufacture of my improved type of toothpick, I employ a material impervious to water, having a thickness preferably of from three to five thousandths of an inch, such as a film of cellulose nitrate, cellulose acetate, parchmentized paper, or paper coated with a cellulose varnish. I cut the substance into squares as at 1, of approximately 1⅜ inch and fold quite loosely, as at 2, so as to provide a soft bend, across either of the diagonals of the square. In the central portion of the triangle thus formed, I place a rivet or eyelet 3, of metal, cellulose or paper, or any substance capable of holding the folded sheet in position. I next cut away the angular portion of one of the sides above the rivet, as at 4, said cutting being performed in such a way that only a single pointed edge 5 projects above the rivet while the two pointed edges below the rivet are in the form of pointed, readily compressible scoops 6 and 7, which, when tension is released, open to form an inner passage through which water or other cleansing fluid readily flows, as when held under a running tap. It will be observed from a study of the structure just described that when the rivet or eyelet of the appliance is held, as between the thumb and a finger of either hand, the lower scoop points, because of the flexible fold, possess a strength not to be found in the rod structure of the ordinary toothpick, and that the compressibility of the scoop prevents injury to teeth or gums. Further, by giving the appliance a quarter turn, the single sharp pointed edge of the top is made available for use in very narrow interdental spaces and the wedge shaped struc-

ture back of this increases its vertical rigidity without interfering with its horizontal flexibility.

It is generally recognized that the mere brushing of teeth with a tooth brush does not remove the accretions in the interdental spaces and that all types of toothpicks now in use are likely to cause damage which may offset the value of the result they achieve. I point out that my improvement in this art makes it possible now for the first time to clean the interdental spaces more thoroughly than has heretofore been possible, without the possibility of injuring teeth or causing bleeding gums and by a means which may be reused a number of times and kept sanitary at all times merely by immersion in water.

It may be further pointed out that, using the materials hereinbefore described, the improved toothpick may be fabricated at a cost considerably less than that involved in preparing quills for the market, and at a cost, because of the possibility of satisfactory reuse, which would compare favorably with that of even the cheapest wooden toothpicks.

As will be apparent from the foregoing, the sheet of material due to its configuration is pliant horizontally and substantially rigid vertically.

Having thus described the invention, I claim:

1. A toothpick comprising a thin sheet of flexible material folded upon itself to form opposed pointed ends.

2. A toothpick comprising a sheet of flexible material folded upon itself to form two opposed scoop shaped ends and having the sides thereof secured together.

3. A toothpick of thin flexible material bent upon itself to form a soft fold forming a scoop shaped end with the side walls thereof secured together.

4. A toothpick made of soft flexible material folded upon itself with its parallel walls secured together and forming a scoop shaped end, said toothpick being pliant horizontally but relatively rigid vertically.

5. A toothpick of the character described formed by bending a sheet of material intermediate its ends to form a toothpick of substantially flat character and with opposed scoop shaped ends communicating with each other whereby to readily permit cleansing.

6. A toothpick of the character described constructed of a thin sheet of flat material folded upon itself whereby it is pliant horizontally but relatively rigid vertically.

7. A toothpick of the character described having a body provided with two scoop shaped ends and a pointed tip.

8. A toothpick of the character described comprising a sheet of flexible material folded upon itself with its side walls secured together thereby defining a soft folded portion constituting opposed, pointed, ends.

9. A toothpick of the character described comprising a sheet of flexible material bent upon itself to produce a soft flexible central fold and means for securing the parallel walls together.

10. A toothpick of the character described comprising a sheet of flexible material folded upon itself to produce a pick of substantially triangular formation, with the ends produced by the fold constituting opposed scoops, said toothpick having one of its walls projecting above the other to provide a solid pointed flexible end.

11. A toothpick of the character described comprising a sheet of material bent upon itself to produce a central compressible fold and means to secure the opposed walls of said toothpick together above the central fold, said central fold forming two opposed scoops compressible in use and capable of opening upon the release of tension whereby to permit the pick to be cleaned by a cleansing fluid.

12. A toothpick of the character described comprising a sheet of material folded upon itself and of substantially triangular formation with the folded portion constituting opposed scoop ends for engagement with the teeth, one of the side walls terminating short of the other whereby to leave a projecting solid pointed end.

LILLIAN JOHN.