A. G. JENNINGS.

DENTAL APPLICATOR.

APPLICATION FILED SEPT. 11, 1920.

1,371,029. Patented Mar. 8, 1921.

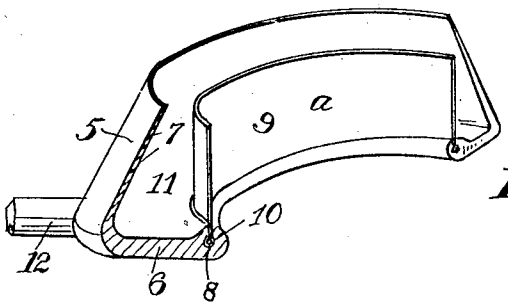


Fig. 1.

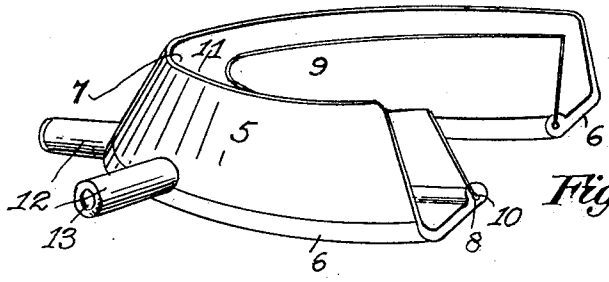
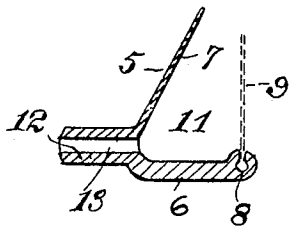


Fig. 2.

Fig. 3.



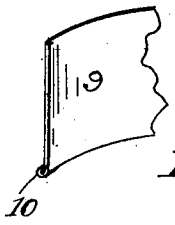


Fig. 4.

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UNITED STATES PATENT OFFICE.

ALBERT G. JENNINGS, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-THIRD TO EDWARD B. DAWSON AND ONE-THIRD TO R. B. L. MAGRUDER, BOTH OF BROOKLYN, NEW YORK.

DENTAL APPLICATOR.

1,371,029. Specification of Letters Patent. Patented Mar. 8, 1921.

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To all whom it may concern:

Be it known that I, ALBERT G. JENNINGS, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Dental Applicators, of which the following is a specification.

This invention relates to dental applicators and contemplates the provision of a device of this class which may be readily applied to the teeth, and will be more effective for the various uses for which it is designed.

Heretofore applicators of this type have been constructed of a single piece of flexible or elastic material, such as vulcanized rubber, and due to the fact that the rear wall has been made integral with the base of the device, which is necessarily of comparatively thick material, considerable difficulty has been encountered in fitting the appliance to the teeth inasmuch as it has been impossible when the rear wall is integral with the base to make it of sufficiently thin rubber to provide for the desired elasticity and flexibility necessary for perfect engagement with the teeth and gums. This invention therefore contemplates avoiding these disadvantages and accomplishes this by so constructing the applicator that the rear wall may be made of very thin, elastic or resilient material, such as rubber, and thus secure the advantage of maximum elasticity and effectiveness when the applicator is applied to the teeth.

Another object of this invention contemplates the provision of a dental applicator, which, when applied to the teeth in the treatment of diseases or the like, will efficiently separate and isolate the teeth and gums from the air, tongue and saliva, and due to the fact that perfect engagement with the teeth and gums can be obtained by virtue of this novel construction, a more perfect vacuum may be formed within the reservoir of the applicator during the process of drawing impurities or pus from the gums or from between the teeth.

Another object of this invention is to provide a dental applicator so constructed as to permit the ready renewal or replacement of that part most susceptible to wear, and hence render the device as a whole more economical and durable.

Other objects of this invention will appear during the course of the description and reference will be had to the accompanying drawings forming a part of this specification, wherein Figure 1 is a perspective view, partly in section, of my improved applicator; Fig. 2 is a perspective view of the applicator in another position; Fig. 3 is a detailed cross section taken through the reservoir and a tube; and Fig. 4 is a detail of the rear wall.

My improved dental applicator comprises a base 6 of relatively thick elastic or flexible material, such as vulcanized rubber and is provided with a front wall 5 integral therewith and of decreasing thickness, as shown at 7, so as to give the front wall greater elasticity or resiliency than the base 6. The base 6 is enlarged along and adjacent its rear edge, and is provided with a reinforced channel or groove 8 thereat. A separate rear wall 9 is provided and is enlarged, thickened or wire-formed along one edge 10 or may be formed with a bead adapted to be inserted in the reinforced groove 8 either by drawing the wall 9 lengthwise therethrough or in any other desired manner. Thus the reinforced character of the groove enables the latter to surround and coöperate with the enlarged or beaded portion of the rear wall and more effectually hold the parts in firm engagement. The wall 9 is composed of any suitable flexible elastic or resilient material as the use and occasion requires, such as rubber, and is ordinarily of considerably less thickness than the base 6, or wall 5. In view of the fact, therefore, that the wall 9 is thinner than the other parts of the device, it is evident that it will have considerably greater elasticity and hence will fit and conform to the contour of the teeth and gums more perfectly. When the two parts 6 and 9 of the device are assembled and interlocked a reservoir 11 is formed therebetween and in order to provide access to the reservoir from the outside one or more tubes 12 are provided having a channel 13 opening into the reservoir, as shown in Fig. 3.

In operation the applicator is applied to the teeth and gums in such a way that the walls 5 and 9 will incase the teeth and as is the case in the treatment of certain diseases, such as pyorrhea, where it is desired to draw

impurities and pus from the gums when such impurities are drawn through a tube 12, a vacuum will be formed in the reservoir 11 due to the fact that the wall 9 is usually very thin and of great elasticity and will therefore tend to conform very closely to the irregularities of the teeth and gum and through maximum adherence thereto tend to exclude the passage of air into the reservoir.

Heretofore it has been found in practice that the rear wall has a tendency to wear out more rapidly than the remaining portions of the device, and hence in the present case when this wall is rendered unserviceable, it is merely necessary to detach it from the base and replace by another. My device therefore may be readily and economically renewed without necessitating complete replacement as heretofore.

Furthermore, by constructing my applicator in this novel manner the base and front wall may be made as desired for varied uses, of any thickness of material and of varied resiliency, or of any desired quality of material, whereas the rear wall may be made of comparatively thin material, of considerably greater resiliency than the base if desired, and may also be made of material of different quality than the base, which has heretofore been impossible.

Although I have described the preferred embodiment of my invention, I desire it understood that I do not limit myself to the exact construction illustrated and described, but may make such changes in details of construction and arrangement of parts as will come within the scope of the appended claims.

I claim as my invention:

1. A dental applicator comprising a reservoir conforming to the shape of the gums and including a base, and a removable wall connected thereto.

2. A dental applicator comprising a reservoir conforming to the shape of the gums and consisting of a base, a rigid wall carried by said base, and a rear wall detachably secured to said base.

3. A dential applicator comprising a reservoir conforming to the shape of the gums and consisting of a base, a wall carried thereby, and a thinner second wall detachably secured to said base.

4. A dental applicator comprising a resilient base, a wall of greater resiliency than said base integral therewith, and a second wall of greater resiliency than said first mentioned wall detachably mounted in said base.

5. A dental applicator comprising a reservoir conforming to the shape of the gums and including a base having a groove, and a removable wall having an edge insertible into said groove.

6. A dental applicator comprising a reservoir conforming to the shape of the gums and consisting of a base of comparatively thick elastic material and having a reinforced groove along one side thereof, a wall of gradually decreasing thickness integral with said base, and a wall of relatively thin elastic material having a part fitting into said groove.

7. A dental applicator comprising a reservoir conforming to the shape of the gums and consisting of a base having a front wall, a removable rear wall, said base and removable rear wall having one means for receiving a part of the other, whereby the rear wall may be readily removed and may be made of thinner material than other parts of said applicator.

Signed at Brooklyn, New York, this 8th day of September, 1920.

ALBERT G. JENNINGS.

Witness:

STANLEY K. GREENE.