July 1, 1930. E. MAJOR 1,769,747

DEVICE FOR THE CARE OF THE TEETH AND MOUTH

Filed Jan. 22, 1929

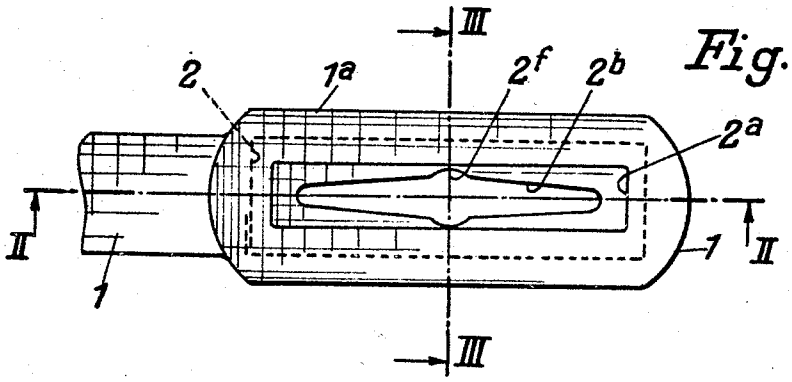


Fig. 1

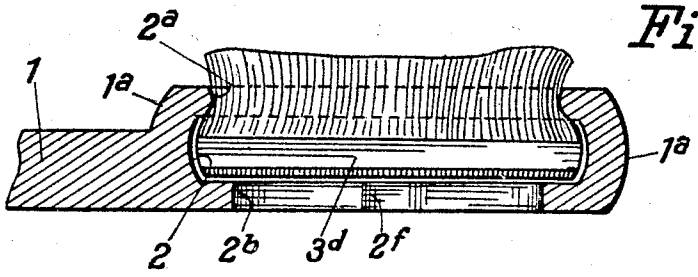


Fig. 2

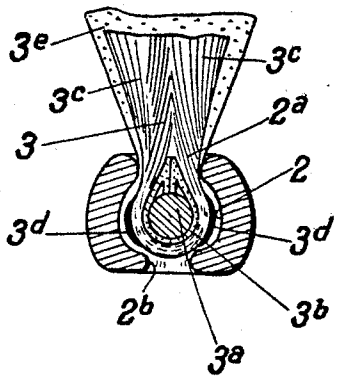


Fig. 3

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DEVICE FOR THE CARE OF THE TEETH AND MOUTH

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There is a gradually growing tendency perceptible in the dental profession to limit the use of the tooth brush. The reason for this is that the tooth brush frequently causes injury to the teeth, the so called cuneiform defects and also a chronic inflammation of the gums. It is difficult to keep the toothbrush clean and its bristles form a constant germ carrier. The hard pointed bristles, during their constant daily use, injure the mucous membrane of the mouth and penetrate the torn tissue, the result being that the dentist is frequently compelled to prohibit the use of the tooth brush without however being able to recommend an equivalent substitute for the same.

A further disadvantage of the ordinary toothbrush resides in the fact that some bristle fibers during their repeated use are liable to come out or tear and the separating fibers enter the various organs of the body through the mouth, thereby causing diseases, complications and the like.

Interchangeable tooth brush inserts are known per se but they have not proved practicable because they were made in the same manner as the brush part of the ordinary toothbrush and consequently their cost of manufacture was comparatively high since the use of a new insert for each individual cleaning of the teeth was inconceivable for economic reasons while on the other hand the attachment of the insert to the brush handle required a complicated construction which not only increased the cost of manufacture but also caused the use of a shapeless handle and the heavy fastening members, which could only be imperfectly cleaned, and were liable to injure the mouth.

The present invention relates to a device for the care of the teeth and mouth which in itself forms a substitute for the present type of toothbrush and the media for cleaning and disinfecting the teeth and the mouth, namely, mouth wash, tooth powder and tooth paste.

The accompanying drawing shows a constructional form, by way of example, of the device for the care of the teeth and the mouth which constitutes the subject matter of the invention.

Figure 1 is a front elevation of the end of the handle per se constructed to hold the insert which latter is adapted to be used only once,

Figure 2 is a vertical section on line 2—2 of Figure 1 of the handle with the insert shown in position therein and shown in side elevation, and

Figure 3 is a cross section on line 3—3 of Figure 2 through the handle and the insert.

Similar characters of reference are employed in all of the above described views to indicate corresponding parts. Referring now more particularly to the accompanying drawing there is provided a handle 1 having one end enlarged and provided with a cavity 2 adapted to receive the insert 3 to be used once only. The opening 2^a permits of the insertion of the insert into the cavity. An opening 2^b slightly smaller than the opening 2^a communicates with the cavity 2 at a point opposite the opening 2^a, said opening 2^b facilitating the removal of the insert and the rinsing of the cavity 2. The opening 2^a which in effect constitutes the mouth of the cavity is smaller and shorter than the cavity 2. The insert 3 according to Figure 3 comprises a wooden core 3^a, a layer of wadding 3^b surrounding the latter and thin vegetable fibers, for instance, domingo or aloe hemp fibers 3^c placed over the layer of wadding 3^b. The free ends of the bundle of fibers 3^c lie closely against each other and form a brush. The fibers 3^c are fastened together by means of a layer or coating of water-insoluble lacquer 3^d on both sides of and level with the core 3^a and also to the layer of wadding 3^b. The layer of wadding 3^b permits on the one hand the elastic deformation of the lower or brush part of the insert and facilities on the other hand the fastening of the fibers 3^c by means of the layers of lacquer 3^d. The layer of wadding 3^b and the fibers 3^c may be impregnated with a preparation for the care of the teeth and mouth and provided with a coating 3^e which is soluble in water and when dissolved constitutes a mouth wash. The

coating 3^a, for instance, a sugar solution prepared with disinfectants presents the escape of the readily volatile disinfectants and preparations for the care of the mouth.

The insert may also be used without impregnation or preparation without departing from the spirit of the present invention. The extremely fine vegetable fibers as compared with animal bristles constitute per se such a large rubbing surface that a special rubbing substance, for instance, detrimental tooth powder which deposits at the base of the teeth, is not required. The vegetable fibers are also soft, do not affect the gums and do not break and tear. As they render the use of special mouth wash and dental cream superfluous, they are competitive owing to their great hygienic advantages. The lower part of the insert surrounding the core 3^a is slightly wider and longer than the opening 2^a but may undergo a slight elastic deformation in both directions. The elastic deformation is mainly insured by the inner layer of wadding 3^b. The handle which is preferably made of celluloid adjacent to the opening 2^a may also undergo a slight elastic deformation. When introducing the insert, the fibers 3^c are also slightly pressed together so that as a final result the insert is fully secured owing to its own elasticity and the elasticity of the edge adjacent to the opening 2^a without the use of special fastening means and the fibers cannot fall out of the cavity 2.

The handle and insert constitute according to the invention a combined unit.

It is believed in view of the foregoing description that a further detailed description is entirely unnecessary. Likewise it is believed that the advantages of the invention will be readily apparent.

Having thus fully described the invention, what is claimed as new and desired to be secured by Letters Patent is:—

1. As an article of manufacture, a tooth cleansing and brushing insert comprising a core, a wadding about the core, brushing fibers about the wadding, a water insoluble composition holding the brushing fibers, wadding and core together, and a tooth cleansing composition about the brushing fibers and having a water soluble coating thereabout.

2. A device of the character described, including in combination a resilient handle, one end of which is enlarged and provided with a cavity, the opening of which terminates short of the ends of the main part of the cavity, the end portion of the handle being also provided with another opening communicating with the cavity at a point opposite the main opening of the cavity, a slightly flexible insert for brushing and cleansing the teeth and adapted to be used only once and having a length and a width slightly greater than the length and width of the main opening of the cavity removably engaged with the cavity due to its flexibility and the resiliency of the handle.

3. A device for the care of the teeth and mouth including an insert to be used once only and comprising an elongated fixed core, a layer of wadding surrounding the core, a bundle of vegetable fibers coiled around the layer of wadding and fastened thereto by means of a layer of water-insoluble lacquer in combination with a resilient handle having a cavity formed at the end thereof and adapted to receive an edge of the insert adjacent to the core, exactly corresponding with the dimensions of this part of the insert and provided with an opening through which the insert is introduced said opening being slightly smaller in length and width than the part of the insert adjacent to the core that the insert can only be inserted in the cavity owing to the elastic deformation of the insert and the elastic deformation of the edge of the opening through which the insert is introduced.

In testimony whereof I affix my signature.

DR. EMIL MAJOR.