

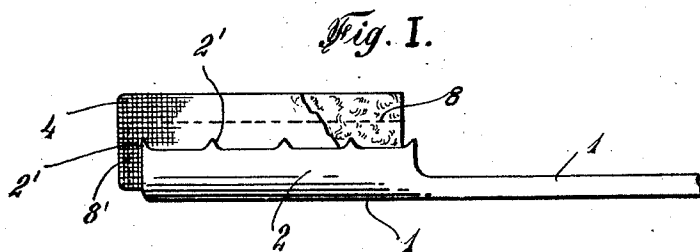
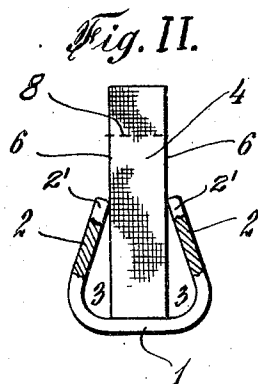
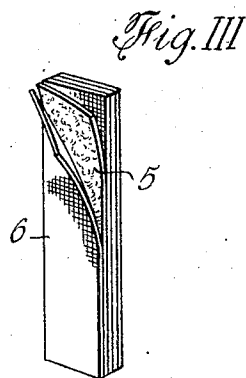
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TOOTHBRUSH

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TOOTHBRUSH.

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It is well known to dentists and other scientific men in general that the ordinary toothbrush is highly unsanitary. Its bristles scratch the gums, and its use is liable to cause or aggravate such diseases as pyorrhea, etc. One feature of the present invention consists of an improved rubbing-pad, which can be readily applied to and removed from a suitable holder or handle, which has no bristles and will not scratch the gums, which is antiseptic yet inexpensive and can be readily replaced (if desired) and after using it once or only a few times, or can be used repeatedly yet be easily maintained in aseptic condition. Another feature of the invention consists of an improved pad-holder or handle having projections by which the pad-material can be rubbed in the recesses in or between the teeth. The invention further comprises the combination of the new holder with the new pad.

A preferred embodiment of the invention is set forth in the annexed detailed description in connection with the accompanying drawings, which disclose the preferred embodiment of the invention. But it is to be distinctly understood that the broad invention is not limited to the details shown and described, but only to the extent defined in the appended claims.

In these drawings, Fig. I is a side elevation of one form of the new handle or holder carrying one of the new tooth-brush pads; Fig. II is an end elevation partly in transverse section of the same; and Fig. III illustrates the pad, individual layers of the pad being indicated as separated.

In these drawings, 1 is the holder, having at one end a longitudinal dovetail-groove formed by the two convergent flanges 2 and 2', from whose lips rises a series of projections 2". The interior of said groove is rounded at 3 and 3' to prevent the accumulation of foreign matter and permit ready cleansing from germs. The handle portion of the holder may be of any convenient or desired shape. Preferably the entire holder, including the handle and flanges with their projections, is unitary and free from joints or pockets which would collect dirt and germs. It may be formed of bone, metal, or any suitable or desired material or composition.

4 is the new pad, which is narrow and flat and about the length of the bristle-portion of the ordinary toothbrush. When dry, the

pad is slipped lengthwise into the end of the groove, to fit snugly in the mouth thereof, as indicated in Fig. II, the upper portion of the pad rising above the lips of the groove, and preferably the end-portion of the pad projects beyond the outer end of the holder, as indicated in Fig. I.

The new pad is made up as indicated by Fig. III, namely, cotton-fiber, such as absorbent cotton, is compressed (preferably under hydraulic pressure) into thin layers; a plurality of such thin layers is then compressed together (preferably under hydraulic pressure) between two outside strips of suitable fabric such as gauze or cheese-cloth. If desired there may be a series of intermediate strips of fabric between groups of layers of the compressed cotton. The pad as a whole is so densely compacted as to be normally rigid and not further compressible. In Fig. III, 5, 5, 5, etc. represent layers of compressed cotton; and 6 and 6 represent the two outside strips of fabric; and 7, 7, some of the intermediate fabric-strips. Preferably the constituent parts are sterilized. The whole is then compressed together, as stated; and then, if desired, a row of stitches 8 is sewed through the pad to unite the two outside strips 6—6, to assist in maintaining the integrity of the entire pad; and the stitches may be carried across one end of the pad, as at 8'. The stitches are so located that when the pad is seated in the groove, they will be outside the groove, as indicated in Fig. I.

As stated, the pad is inserted into the groove when dry and compact, leaving the two unfilled triangular spaces beneath the respective convergent flanges of the holder. As soon as the pad is moistened with water, or some antiseptic liquid, it swells out and fills those spaces, preventing the pad from coming out of the holder except lengthwise. The exposed portion of the pad likewise swells out to the extent limited by the stitches, and the pad then appears more like an ordinary toothbrush. Upon rubbing the wetted pad on the teeth, the exposed outer portion of the pad becomes of course more or less flattened out, but said stitches (when present) prevent too great separation of the individual layers and maintain the integrity of the pad as a pad. The projections 2", covered with the pad-material, serve for rubbing that material in the recesses in and between the teeth and adjacent the gums,

thereby ensuring thorough cleansing of the teeth, but without injury to the gums. After using the pad, the toothbrush can be dropped into any convenient antiseptic fluid, and then allowed to dry, ready for the next use. A stock of such pads can be kept on hand, and a used pad discarded whenever thought proper.

The invention has thus been described in full details, but only for the sake of clearness. It is to be distinctly understood that the appended claims are intended to cover such modifications as are within the spirit of the invention and the scope of the claims.

The invention having been thus fully described what is claimed is:

1. A tooth-cleaner comprising, in combination, a handle provided with a socket defined by two lips and having projections ex-

tending in the planes of said lips, and a composite pad demountably seated in said socket, said pad comprising a plurality of laminations of absorbent fibrous material and fabric-sheets, the laminations being so densely compacted as to constitute a normally-rigid pad.

2. A tooth-cleaner comprising a handle provided with a socket defined by two relatively-immovable flanges lying side by side and having integral and non-yielding projections extending in the planes of said flanges.

3. A composite tooth-cleaning pad comprising a plurality of laminations of absorbent fibrous material and fabric sheets, the laminations being compacted so densely as to constitute a normally-rigid pad.

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