

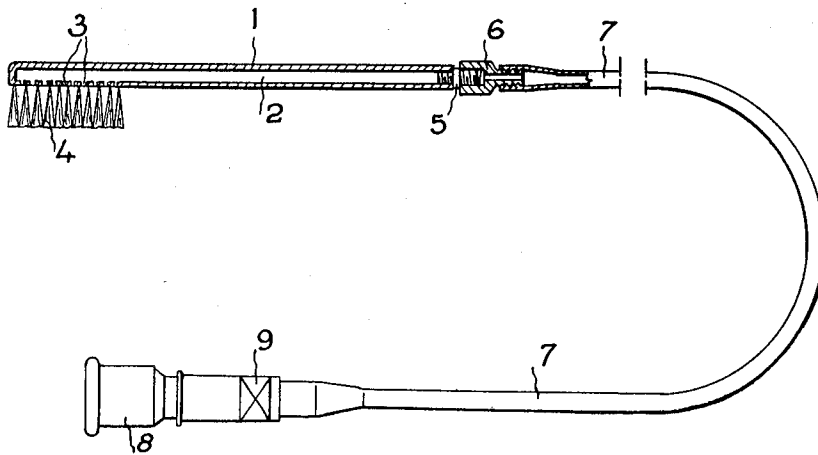
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TOOTHBRUSH WITH AUTOMATIC SPRAYING OF THE BRISTLES

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3,135,989 TOOTHBRUSH WITH AUTOMATIC SPRAYING OF THE BRISTLES

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2 Claims. (Cl. 15—578)

Presently, for periodic cleaning of the teeth use is made of a toothbrush soaked with water, on whose bristles a small quantity of toothpaste is applied. This known system requires a continuous wetting of the brush bristles; besides, it is found that the oral cavity cannot be sufficiently cleaned from any residue of food and in particular from the toothpaste itself, so that some traces thereof always remain in the mouth.

This invention is directed to eliminate the aforementioned disadvantage and relates to a toothbrush with automatic spraying of drinking water, which is conveyed continuously to the bristles of the brush until complete cleaning of both the oral cavity and the teeth is attained, so that no trace of food residues and toothpaste will be left. Further, the toothbrush can be maintained in the mouth until cleaning is completed.

The toothbrush in accordance with the present invention essentially comprises the usual handle with a longitudinal bore into which the spraying water passes through orifices formed in the brush at the base of the bristles, while the outermost end of said handle terminates with a fixed fitting to which a movable fitting is connected. This movable fitting carries a hose whose opposite end, which is of suitable length, terminates with a pipe union intended to be inserted into the projecting portion of a drinking water tap.

In order to reduce the pressure existing in the water head or column, which would disturb the normal cleaning of the teeth, on said pipe union a pressure reduction unit of known type has been provided, which can be previously calibrated to the pressure desired.

With the toothbrush with automatic spraying in accordance with the present model of utility it is possible to obtain a perfect cleaning of the oral cavity for all the members of the same family, being it sufficient to substitute for the brush with the handle another toothbrush by screwing the latter to the movable fitting. In this manner, every member of the family—although possessing his own toothbrush—can use the device, that is to say the flexible pipe or hose for feeding the spraying water to the bristles.

It is apparent that both the flexible pipe and the pipe union mentioned above can be realized in a manner different from that described above and illustrated in

the accompanying drawing; in particular, the flexible pipe or hose may be preferably, but not necessarily, made of plastic material; likewise, also the pipe union may be constructed of metal or plastic material, without departing from the scope of the invention as claimed.

Referring to the drawing, 1 indicates the handle of the toothbrush, which is longitudinally bored at the inside at 2, with one end thereof provided with orifices 3 directed toward the base of the bristles 4. The opposite end terminates with a fitting 5, screwed therein, on which is screwed in turn a female fitting 6 into which one end of a flexible pipe or hose is inserted; the opposite end of said hose is connected to a pipe union 8 provided with a pressure reduction unit 9.

The pipe union 8 is inserted on the water tap desired and, even if the latter is fully opened, said pressure reduction unit 9 will cause the water delivered to the bristles 4 through the orifices 3 to be fed with a pressure such as not to disturb the person who uses the toothbrush for periodical cleaning of his mouth.

What is claimed is:

1. A toothbrush comprising
a hollow handle having a longitudinal bore through
said handle connecting with a plurality of feeding
orifices,
a plurality of bristles surrounding each of said orifices,
said orifices directed toward said bristles,
a fitting fixedly attached to the opposite end of said
handle from said bristles and orifices,
a movable fitting connected to said fitting fixedly attached to said handle,
a flexible pipe having one of its ends attached to said movable fitting,
a pipe union attached to the opposite end of said flexible pipe,
a pressure reduction unit in said pipe union whereby water may flow from said orifices at a previously calibrated pressure independent of water flow from a water tap.
2. A toothbrush as claimed in claim 1, further characterized by said bristles forming tufts of substantially V-shape whereby water flowing from said orifices will strike said tufts and not flow in an uninterrupted stream.

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