

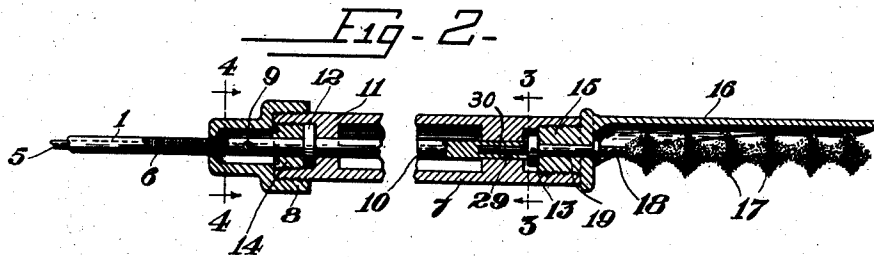
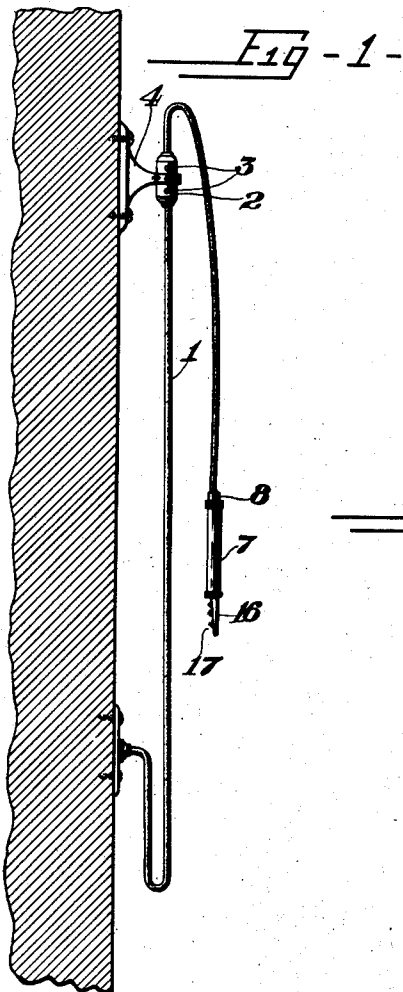
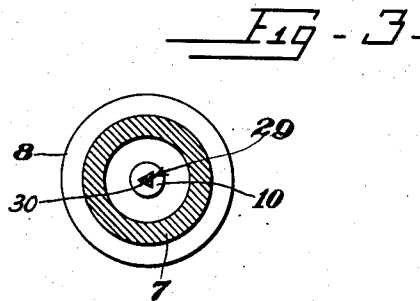
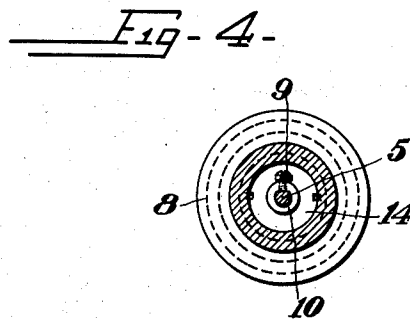
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ELECTRIC TOOTHBRUSH

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ELECTRIC TOOTHBRUSH

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The object of this, my present invention is the provision of an electrically driven tooth brush which may be conveniently retained in a lavatory or like office, wherein the brush is detachable from the handle so that a different brush may be attached and operated by the motor driven shaft, wherein the shaft is oscillated or turned in two directions, wherein the brush is of a particular and peculiar nature but of a simple construction so that the same will operate on as well as between the teeth, wherein the device is provided with a guard for the brush for protecting the cheek of the user and further wherein the device shall be of a simple construction, easily and cheaply manufactured and thoroughly efficient for its purpose.

To the attainment of the foregoing the invention consists in the improvement herein after described and definitely claimed.

In the drawings:

Figure 1 is a side elevation of the improvement when not in use.

Figure 2 is a substantially central longitudinal sectional view through the hollow handle and guard for the brush.

Figure 3 is a transverse sectional view on the line 3—3 of Figure 2.

Figure 4 is a similar sectional view on the line 4—4 of Figure 2.

As disclosed by Figure 1 of the drawings I plug in a wall socket covered wires 1 which are connected to a small motor 2 of the reversible type, the said motor having on its casing push buttons 3 for reversing the same. When the device is not in use the motor is designed to be held by a clamp 4 against the wall provided with the socket. The motor operates a flexible shaft 5 arranged in a flexible casing 6.

The handle 7 of the improvement is in the nature of a tube and may be constructed of any desired material. There is screwed on what I will term the rear end of the handle a cap 8, the said cap having an opening through the rear face thereof to receive and hold the flexible casing 6, while the flexible shaft 5 is adjustably connected by means 9 to one end of a shaft 10 which is journaled through openings provided by partitions 11

in the bore of the hollow handle 7. The shaft 10 has fixed thereon a collar 12 which is in contact with the outer wall adjacent one end of the hollow handle. This end of the handle is closed by a plug 14, which is screwed in said handle and the plug contacts with the collar 12 to hold the shaft 10 from longitudinal movement in the bearing openings provided therefor in the partitions 11. The second end of the shaft does not extend through the bearing therefor but this end is provided with a substantially triangular longitudinally extending bore 29. The second end of the hollow handle is closed by a threaded plug 15 on which is formed an outwardly extending shield 16. The plug 15 has arranged centrally therethrough a sleeve 19 that has its outer end beaded and its second end held against the outer end of the plug 15 by an adjustably fixed collar 13. The sleeve has its inner end formed with a triangular shaped bore 29 of the shaft 10 and the sleeve 19 is designed to be received therein and to be frictionally engaged by a rod or stem 18 for a tooth cleaning brush 17. The rod or stem 18 is preferably in the nature of twisted wires and the tufts of the brush are passed between these wires so that the said tufts are in wave-shaped formation and whereby the enlarged and pointed portions thereof may be received between the teeth to clean the same and the concaved portions will contact with the tooth surface.

The construction and advantages of the improvement will, it is thought, be understood and appreciated by those skilled in the art to which such invention relates. By pressing the buttons 3 of the reversible motor the shaft 5 will be caused to turn in two directions at the desire of the operator of the device. One hand of the operator, of course, grasps the handle 7. The shield 16 effectively protects the inner surfaces of the cheeks of the user while the brush will effectively and quickly clean the user's teeth.

It is to be understood that the features herein described and illustrated are for the purpose of explaining the nature of my inven-

tion and, therefore, are to be interpreted as illustrative and not in a limiting sense.

Having described the invention, I claim:

- 5 A hollow handle for an electrically driven tooth brush, a shaft journaled therein having one end terminating short of the adjacent end of the handle and provided with a triangular bore, a plug for closing said end of the handle, a sleeve journaled centrally
10 through the plug and held from longitudinal movement therein, said sleeve having a triangular stem to be received in the triangular bore of the shaft, in combination with means for driving the shaft and a tooth
15 brush having a stem to be frictionally received in the bore of the sleeve and a shield for the brush carried by the last-named plug

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