J. E. TATE.

FOUNTAIN TOOTH BRUSH.

APPLICATION FILED OCT. 31, 1910.

1,014,784. Patented Jan. 16, 1912.

FIG. 1

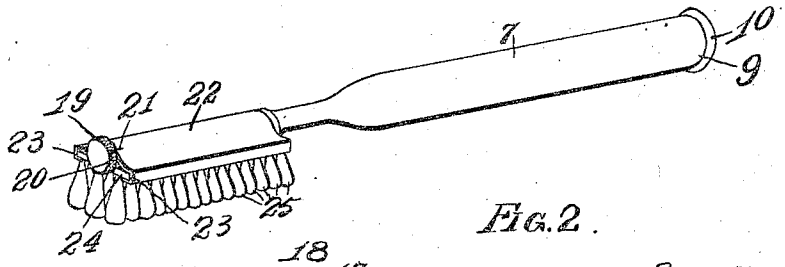


FIG. 2.

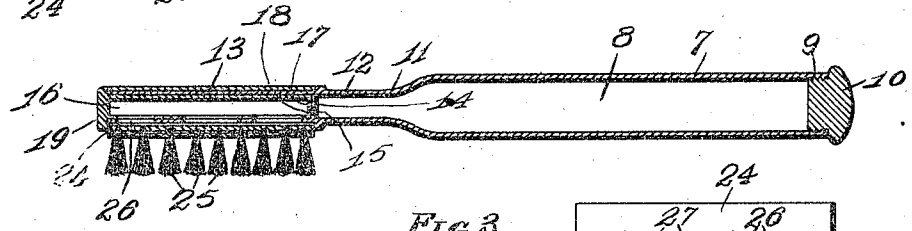


FIG. 3

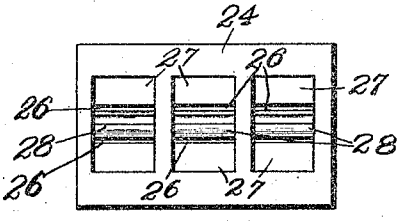


FIG. 4

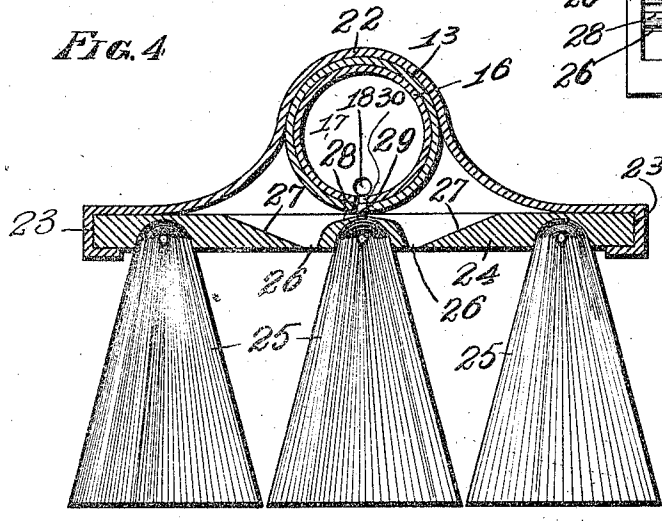


FIG. 5

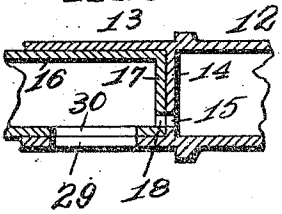
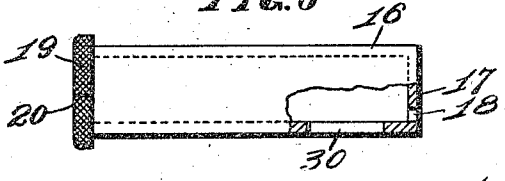


FIG. 6



Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES E. TATE, OF MIDDLETON, GEORGIA.

FOUNTAIN TOOTH-BRUSH.

1,014,784. Specification of Letters Patent. Patented Jan. 16, 1912.

Application filed October 31, 1910. Serial No. 590,015.

To all whom it may concern:

Be it known that I, JAMES E. TATE, a citizen of the United States, and resident of Middleton, Elbert county, Georgia, have invented certain new and useful Improvements in Fountain Tooth-Brushes, of which the following is a specification.

This invention relates to improvements in fountain tooth brushes and has for its object a handle acting as a fluid container, a detachable brush and a valve mechanism whereby the fluid is permitted to be brought in contact with the bristles.

A further object of my invention is to construct a tooth brush with a fluid container, a detachable brush and means for supporting the same, a suitable duct whereby the fluid is conducted from the container to the bristles of the brush and a valve mechanism for regulating the admission and flow of the fluid.

Figure 1 is a perspective view of my improved tooth brush. Fig. 2 is a central, sectional view of the same. Fig. 3 is a detail top plan view of the brush frame. Fig. 4 is an enlarged cross sectional view taken through the brush showing the construction of the brush frame and its relative position in the housing, and the ducts by which the fluid is directed against the bristles. Fig. 5 is a detail sectional view showing the relative position of the valve mechanism in the tubular portion of the housing. Fig. 6 is a detail view of the valve mechanism with a part broken away and in section showing the inlet port and the discharge duct.

In the construction of my invention I provide a handle 7 being constructed hollow forming a fluid or liquid container 8, the end 9 thereof through which the fluid or liquid is admitted into the container is provided with a stopper 10, and which may be inserted and held snugly therein by any well-known means. The handle 7 is brought to a diminished size at the point indicated by the numeral 11, forming a neck 12, the end of said neck terminating in a cylinder or tube 13, and in the same is placed a wall 14 provided with a port hole 15 through which the fluid or liquid from the container is permitted to pass. In the tube or cylinder 13 is placed a tubular valve 16, its inner end closed by the wall 17, which is also provided with a port hole 18 corresponding in size with the port hole 15, and the same are so arranged as to communicate and provide a free passage for the fluid or liquid when the valve is so turned as to permit the port holes to register. The opposite end of the tubular valve is provided with a head 19, the edge thereof being knurled so as to provide a suitable grip for the fingers, and on said head is formed an indicator mark 20, which when brought in register with a like mark 21 formed on the housing 22 will indicate that the port holes are in alinement for the free passage of the fluid. The housing 22 is bent over and securely fastened to the cylinder 13, the edges being flared outwardly forming channels 23 in which the brush frame 24 is held and supported, the said brush frame 24 being provided with a plurality of rows of bristles 25 and held therein in the usual manner of brush construction, the said frame provided with elongated slots 26, the surface 27 tapering inwardly so as to guide the fluid against the center row of bristles. The construction as described is clearly shown in Fig. 4. The formation of the slots in the frame is such as to provide the material over the center row of bristles with a rounded surface indicated by the numeral 28, which comes immediately below the ducts 29, which are formed in the bottom edge of the cylinder 13, the tubular valve being also provided with similar ducts 30 corresponding with those formed in the cylinder 13. The head 20 of the tubular valve is of such size as to contact with the edge of the brush frame and lock the same in position and the valve is so constructed as to fit snugly in the cylinder 13, and cause what is termed a friction fit. After the brush has been used, the operator by manipulating the head 20 of the tubular valve, by either turning it to the right or left so that the indicator marks are placed out of register, the ports and ducts are closed and the fluid from the container is prevented from entering the brush proper.

The essential feature of my invention is the construction of a fountain brush having a removable or detachable brush member carried by a fluid container and a means whereby the fluid is permitted to contact with the brush.

Having thus fully described my inven-

tion, what I claim as new and desire to have secured to me by the grant of Letters Patent, is:

A fountain tooth brush comprising a handle, a brush supporting housing, a slotted brush frame provided with bristles detachably mounted in said housing, a division wall formed in the handle and provided with a port opening, a slotted tubular valve member located in the handle for regulating the passage of the fluid from the handle to the valve, thence to contact with the bristles of the brush member, substantially as specified.

In testimony whereof, I have signed my name to this specification, in presence of two subscribing witnesses.

JAMES E. TATE.

Witnesses:

S. W. TATE,

ALFRED A. EICKS.