H. M. BRENENSTUL.

ROTARY TOOTH BRUSH.

APPLICATION FILED OCT. 4, 1910.

1,038,525. Patented Sept. 17, 1912.

Fig. 1.

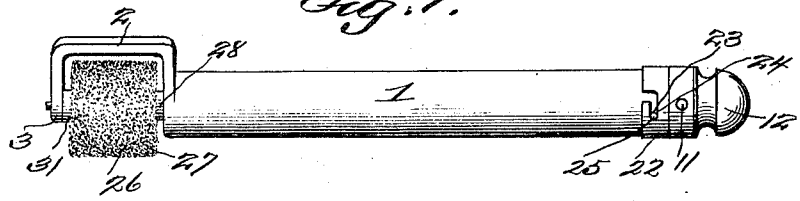


Fig. 2.

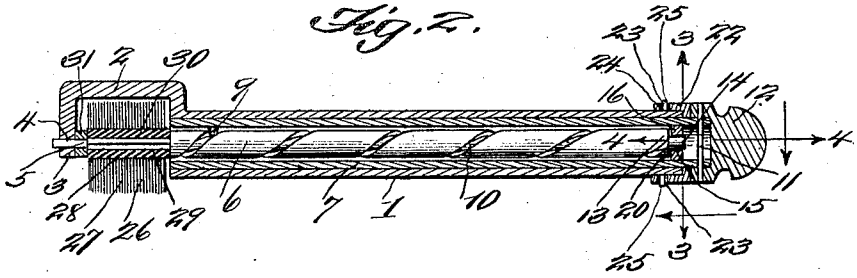


Fig. 3.

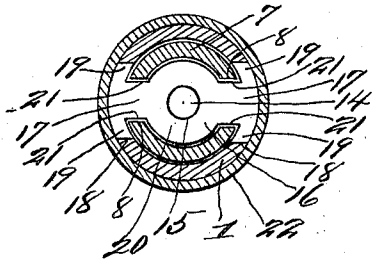


Fig. 4.

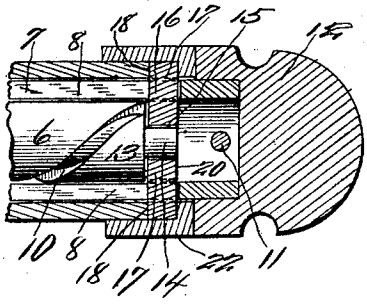
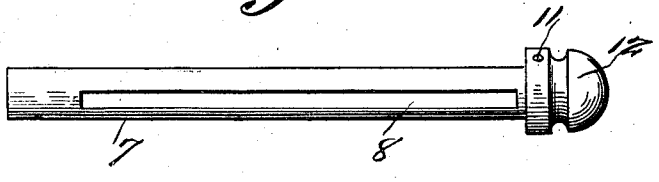


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

HENRY M. BRENENSTUL, OF BELLEVUE, OHIO.

ROTARY TOOTH-BRUSH.

1,038,525. Specification of Letters Patent. Patented Sept. 17, 1912.

Application filed October 4, 1910. Serial No. 585,283.

To all whom it may concern:

Be it known that I, HENRY M. BRENENSTUL, a citizen of the United States, residing at Bellevue, in the county of Huron and State of Ohio, have invented a new and useful Rotary Tooth-Brush, of which the following is a specification.

This invention belongs to the art of toilet articles and it more especially pertains to a new and useful manually operated rotary tooth brush, in which there is involved novel features of construction, and which is illustrated in the accompanying drawings in which—

Figure 1 is an elevation of the rotary tooth brush. Fig. 2 is a longitudinal sectional view through the brush. Fig. 3 is a cross sectional view upon line 3—3 of Fig. 2. Figs. 4 and 5 are detail views of portions of the brush.

Referring to the drawings, 1 designates an open-ended shell, which constitutes the handle of the brush and is provided at one end with a rectangular integral bracket 2 in the end 3 of which is a bearing 4 for the reception of the reduced end 5 of a spindle 6.

Arranged within the shell 1 is a hollow plunger 7 that is provided with elongated slots 8, arranged directly opposite each other and projecting inwardly from the plunger at one end is a lug 9 that extends into a spiral groove 10 in the spindle 6. Secured by a pin 11 to the plunger at the end opposite the lug is a handle or knob 12, by which reciprocatory motion is imparted to the plunger. The end 13 of the spindle is provided with a pintle 14 that is journaled in a seat 15 formed in a bearing 16 provided with curvilinear T-shaped heads, the stems 17 of which are secured in recesses 18 in the shell 1 to retain the bearing in place. The curvilinear T-shaped heads which form the lugs 19 have their shank portions provided with recesses 21 in which the longitudinal edges of the slots 8 of the plunger 7 move. By this construction, the hollow plunger member is guided in its reciprocating motion, and is prevented from rotating by the construction of the member 16. To hold the member 16 in place securely, a collar 22 is provided, which fits over the end of the said shell 1, and is connected to the same by a bayonet connection 25, (which consists of a slot 24 and a lug 25).

Carried by the reduced end 5 of the spindle 6 is the brush 26. This brush 26 consists of the bristles 27 and the hub or body portion 28. This hub or body portion may be made of any suitable material, but preferably hard or vulcanized rubber. This hub or body portion is in the form of a shell, and is provided with a rectangular bore 29, to receive the rectangular portion 30 of the said reduced portion 5 of the spindle. To hold the hub, body portion or shell upon the reduced end of the spindle, and to take the thrust of the spindle from against the overhanging bracket 2, a washer 31 is provided. This washer is located betwen the end 3 of the overhanging bracket, and the hub or body portion of the brush, as shown in Fig. 2.

In using the tooth brush, the hollow plunger member is reciprocated, by means of the handle or knob 12. Thus the spindle 6 is rotated, and with it the brush, through the coöperation between the lug 9 and the groove 10.

The invention having been set forth, what is claimed as new and useful is:

In a tooth brush, a cylindrical member, a second cylindrical member mounted within the first mentioned cylindrical member, a shaft arranged within the second mentioned member, said shaft being formed with a spiral groove, the inner cylindrical member being of a length in excess of the length of the first mentioned cylindrical member, said inner member being provided with a plurality of alined slots, a plate forming a bearing for said shaft, said plate being provided with radial extensions, a flanged cap embracing said outer cylindrical member, the flange of said cap contacting with the radial extensions formed integral with the bearing plate to hold the same in contact with the end portion of the first mentioned

cylindrical member, a brush mounted on said shaft, and a pin carried by the inner cylindrical member, said pin riding in the spiral groove formed in said shaft to rotate said shaft as the inner cylindrical member is reciprocated.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

HENRY M. BRENENSTUL.

Witnesses:
JESSE VICKERY,
ANNA SEIP.