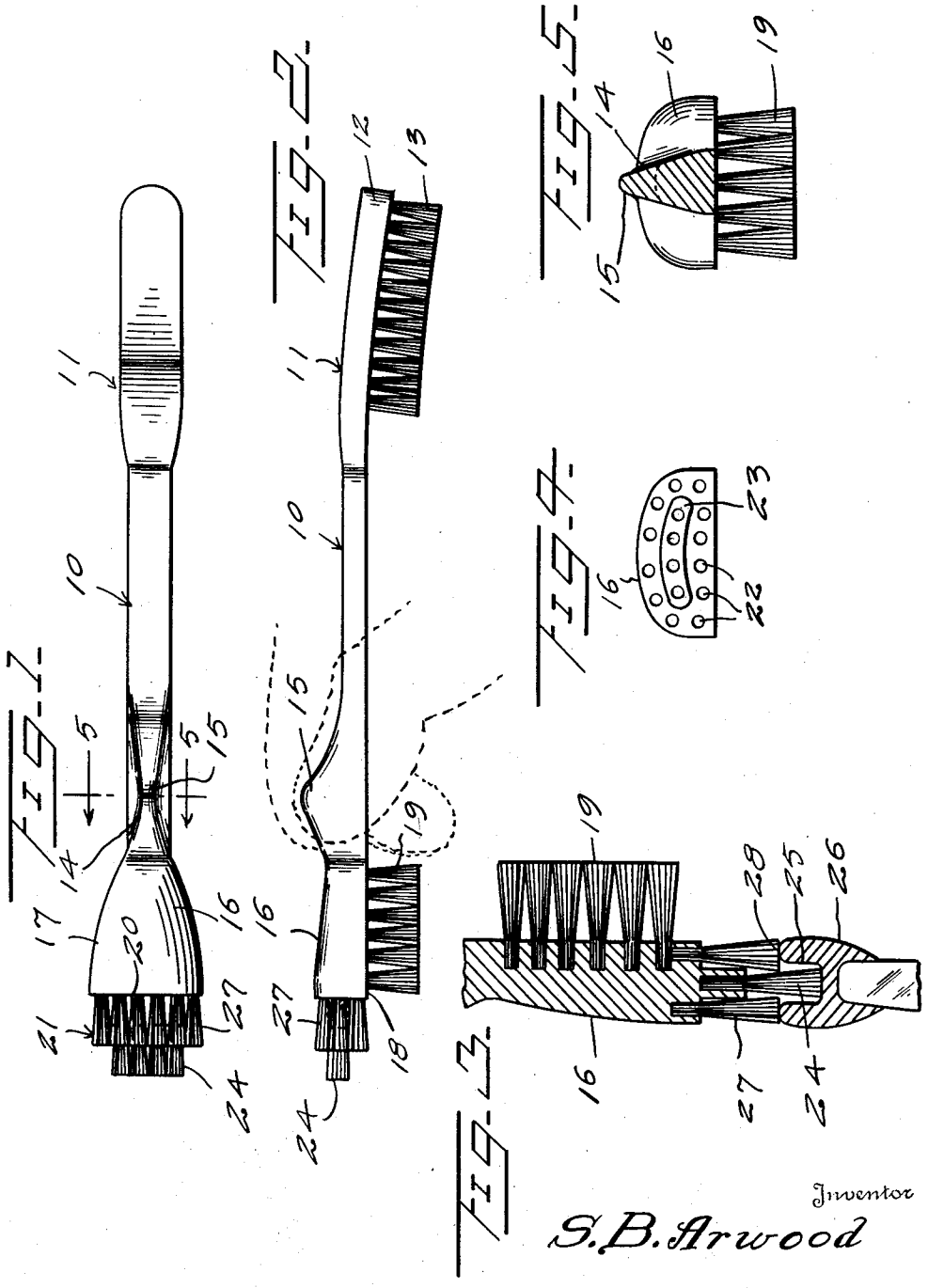
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TOOTHBRUSH HANDLE AND HEAD CONSTRUCTION

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TOOTHBRUSH HANDLE AND HEAD CONSTRUCTION

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1 Claim. (Cl. 15—143)

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This invention relates to toothbrushes.

An object of this invention is to provide a toothbrush which is designed particularly for cleaning upper and lower plates, together with the teeth on such plates.

Another object of this invention is to provide a brush wherein the bristles extend from an end of the back and are arranged on an arc so that the bristles may be extended downwardly into the channel of the lower plate, with the bristles arranged in stepped relation so that the inner long bristles may engage within the channel of the lower plate, whereas the outer bristles which are shorter in length may engage on the edges of the channel.

Another object of this invention is to provide a toothbrush which will readily clean all of the concave surfaces and depressions in plates, both upper and lower, in addition to all of the convex surfaces and the spaces between the teeth.

With the above and other objects in view, my invention consists in the arrangement, combination and details of construction disclosed in the drawings and specification, and then more particularly pointed out in the appended claim.

In the drawings,

Figure 1 is a detail top plan of a toothbrush constructed according to an embodiment of this invention,

Figure 2 is a detail side elevation of the toothbrush,

Figure 3 is a fragmentary longitudinal section of one end of the toothbrush showing the brush in cleaning position with respect to a lower plate,

Figure 4 is a detail end elevation of one end of the brush with the bristles removed,

Figure 5 is a sectional view taken on the line 5—5 of Figure 1.

Referring to the drawing, the numeral 10 designates generally an elongated handle which at one end thereof has a brush member generally designated as 11. The brush member 11 includes a longitudinally curved back 12, having bristles 13 extending from one side thereof. The handle 10 at the end thereof opposite from the brush 11 is formed with a narrowed finger grasping portion 14 which in side elevation is extended upwardly from the adjacent side of the handle 10, as indicated at 15.

A brush head or back 16 extends from the handle 10 and is of tapered configuration in plan, as shown in Figure 1, being formed with substantially outwardly divergent edges 17. The back or head 16 has extending from the flat side 18

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thereof a plurality of bristles 19. The outer end of the back or head 16 is squared off as indicated at 20 and a plurality of stepped bristles 21 extend outwardly from the squared end 20.

The bristles 21 as shown in Figure 4, are formed on the outer side of the head 16 on a curvature which follows the convex curvature of the head 16, and on the inner side the bristles 21 are in substantially a straight line as indicated at 22. The head 16 is formed with an outwardly extending longitudinally curved extension 23 within which long bristles 24 are adapted to be secured, the bristles 24 being disposed on an arc adapted to snugly engage within the curved channel 25 of a lower plate 26. The outer bristles 27 of the bristles 21 being substantially shorter in length than the inner bristles 24, are adapted to engage the outer edges 28 of the channel 25. In this manner both the inside of the channel 25 and the outer edges thereof may be cleaned in a single operation.

In the use and operation of this brush the handle 10 is of such length that when the bristles 21 are engaged with a plate and the narrow portion 15 of the handle is grasped between the thumb and forefinger, the bristles 13 will be disposed rearwardly from the adjacent portion of the back of the hand. The bristles 21 may be engaged with either the upper or lower plates and where the lower plate is being cleaned, the bristles 21 may be disposed with the bristles 24 extended within the channel 25 of the lower plate 26. Due to the curvature of the mounting of the bristles 24 and 27, the channel can be thoroughly cleaned without straining or breaking the bristles as would be the case where these bristles are disposed in a straight line.

The bristles 19 may be used for cleaning the inside of the upper plate or the inner portions of the lower plate, and the bristles 13 may be used for cleaning the outer sides of both the upper and lower teeth. With a brush as hereinbefore described, both the upper and lower plates can be thoroughly cleaned without straining the bristles of the brush.

I do not mean to confine myself to the exact details of construction herein disclosed, but claim all variations falling within the purview of the appended claim.

What I claim is:

A toothbrush structure comprised of an elongated flat handle, a raised, arcuate compressed finger gripping portion integral with said handle and extending in a plane perpendicular to the

plane of the width of said flat handle, a head integral with said handle immediately adjacent said finger gripping portion, said head comprising a member substantially triangular in plan diverging from said handle having a flat underside, a convexly arcuate upper side and a flat end portion, said flat underside having a plurality of bores therein for the reception of bristles, and said end having a plurality of bores adjacent the periphery thereof for the reception of bristles, and a centrally positioned shoulder extending outwardly from the central portion of said flat end, said shoulder having a convex upper side, a concave underside and a flat end surface parallel to the end surface of said head, said last mentioned flat end surface having an arcuate row of bristle receiving bores therein conforming to the cross sectional contour of said shoulder.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
D. 110,185	Lukenbill	June 21, 1938
158,099	Lowd	Dec. 22, 1874
673,506	Pitts	May 7, 1901
1,937,857	Swope et al.	Dec. 5, 1933
2,153,554	Fitzgerald	Apr. 11, 1939
2,190,277	Viragh	Feb. 13, 1940
2,206,542	Arnold	July 2, 1940
2,236,034	Luce et al.	Mar. 25, 1941
2,272,151	Hertzberg	Feb. 3, 1942
2,274,042	Cosby	Feb. 24, 1942

FOREIGN PATENTS

Number	Country	Date
19,408	Great Britain	1896
117,317	Switzerland	Jan. 3, 1927