

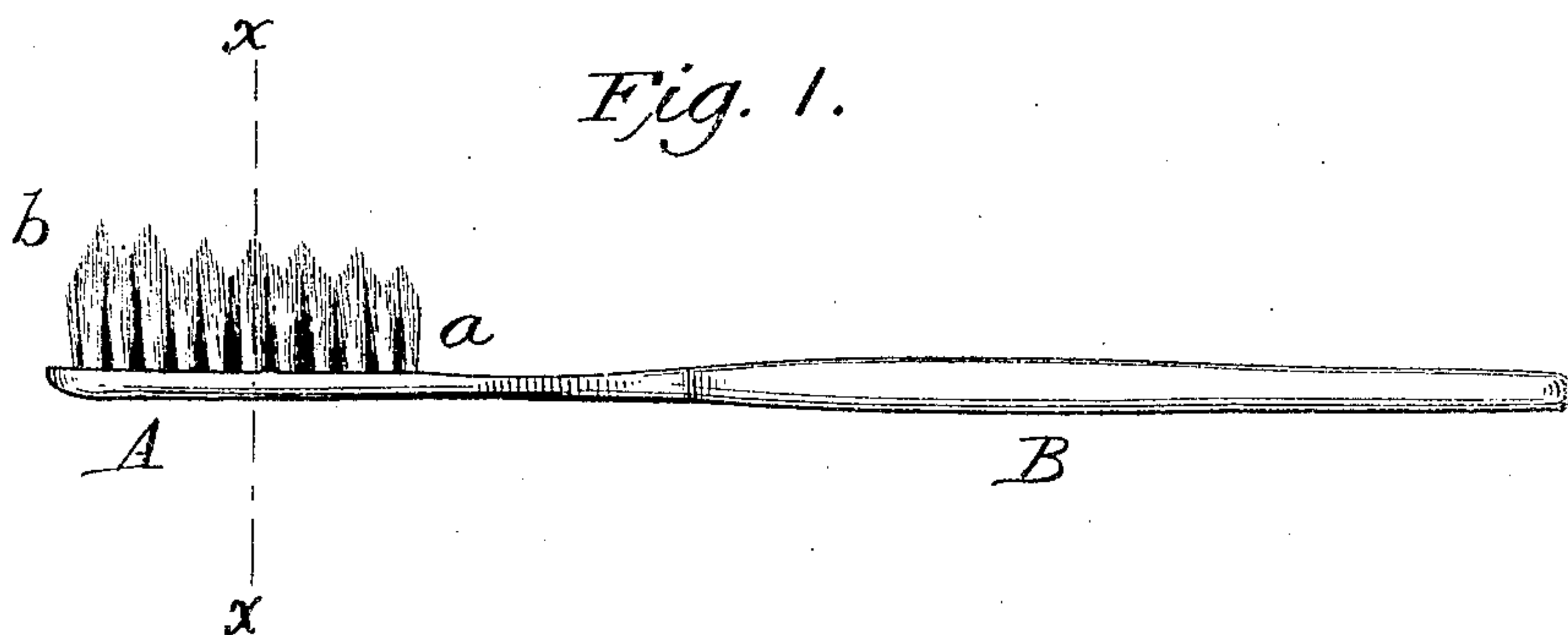
No. 803,995.

PATENTED NOV. 7, 1905.

W. S. DAVENPORT.

TOOTH BRUSH.

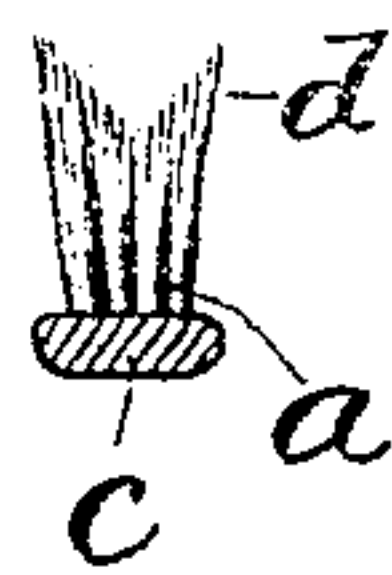
APPLICATION FILED JUNE 10, 1905.



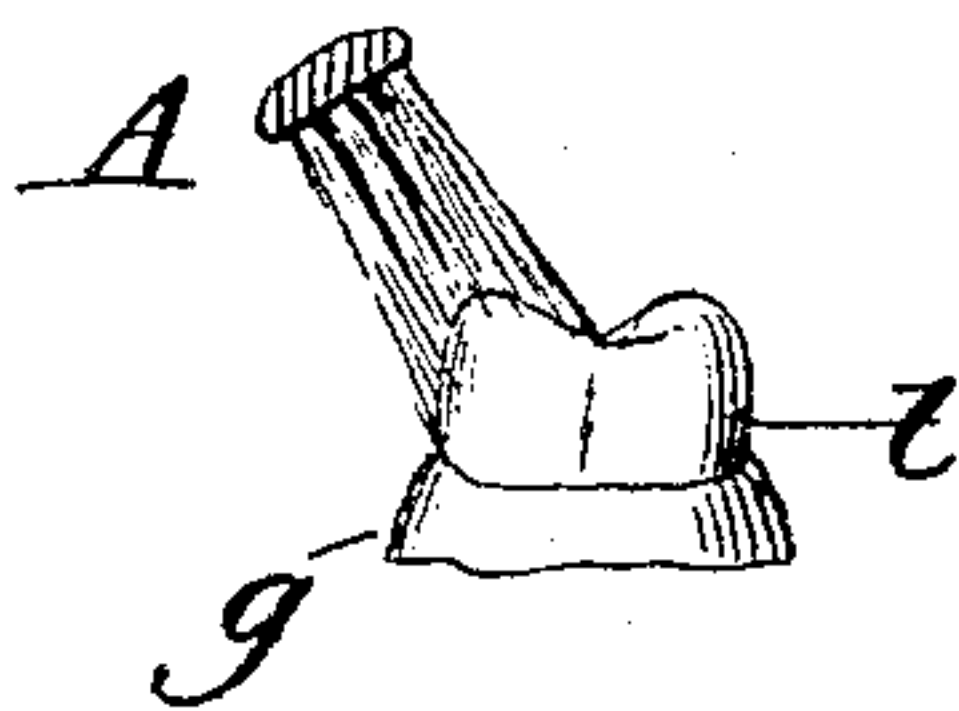
*Fig. 4.*



*Fig. 3.*



*Fig. 5.*



Witnesses  
James F. Duhamel,  
Arthur Green.

William S. Davenport, Inventor  
By his Attorney, Will Malcomson

# UNITED STATES PATENT OFFICE.

WILLIAM S. DAVENPORT, OF PARIS, FRANCE.

## TOOTH-BRUSH.

No. 803,995.

Specification of Letters Patent.

Patented Nov. 7, 1905.

Application filed June 10, 1905. Serial No. 264,591.

*To all whom it may concern:*

Be it known that I, WILLIAM S. DAVENPORT, a citizen of the United States, residing at the city of Paris, in the Republic of France, have  
5 invented certain new and useful Improvements in Tooth-Brushes, of which the following is a specification.

The object of my invention is to provide a tooth-brush which will reach and cleanse in  
10 one operation of brushing what is known as the "valley" or "depression" on the top of the larger tooth and also the side of the teeth down to the gum, either on the inside or the outside of the teeth.

15 Various constructions and formations of the bristles of tooth-brushes have heretofore been used, which are designed to reach the valley of the teeth by forming the face of the brush with centrally-projecting tufts. In my improved construction of tooth-brush the ends  
20 of the bristles along one side of the brush are designed and formed to enter the depression on the top of the teeth, while the ends of the bristles on the other side abrade against the  
25 sides of the teeth and reach down to the gum.

In the accompanying drawings, Figure 1 is a side view of the head or bristle portion of the brush, together with the handle. Fig. 2 is the same as Fig. 1, the head being in cen-  
30 tral longitudinal section. Fig. 3 is a cross-section at  $x x$  of Fig. 1 looking toward the handle. Fig. 4 is a cross-section at  $x x$ , Fig. 1, looking toward the end of the head, and Fig. 5 is a cross-section showing the head of  
35 the brush and its application to the top or crown and side of a tooth.

In the drawings the head of my improved tooth-brush is designated by the letter A and the handle by the letter B. Any desired num-  
40 ber of rows of bristles crosswise of the head may be used and will depend on the size of the brush. I prefer four rows, as shown in

the drawings. In the head A the outer rows of bristles  $a a$  are of greater length. The tufts of bristles on the outer rows end in a cone  
45 terminating in a point at  $d$  and are longer than those of the inner rows. The interior rows of bristles  $c c$  are cut away on the inner side, so as to incline toward the center and form, with the cone-shaped outer tufts, a sharp  
50 and deep valley lengthwise of the head. At the end of the head opposite to the handle B the terminal bristles extend to the full length of the side cones  $d d$  and form a cross-wall of tufts at  $b$ , which terminates and closes the  
55 central valley at that point.

It will be seen that the longer bristles on the outer row of one side of the head will reach the depressed portion on the crown or top of the teeth, while the row of bristles on the  
60 other side of the head will reach down the side of the tooth  $t$  to the gum at  $g$  and dislodge any matter that may lie at that point. This cleansing is increased by the pointed ends of the conical tufts  $d$ .  
65

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A tooth-brush comprising a handle and a head carrying bristles which form a central  
70 longitudinal valley through the major portion of its length which valley is terminated at the end thereof by a tuft of projecting bristles substantially as shown and described.

2. A tooth-brush with a head carrying bristles formed to provide a central depression or  
75 longitudinal valley therein; a series of outer conical tufts along each side of the valley and a terminal tuft at the end closing said valley substantially as shown and described.

WILLIAM S. DAVENPORT.

Witnesses:

HANSON C. COXE,  
JOHN BAKER.