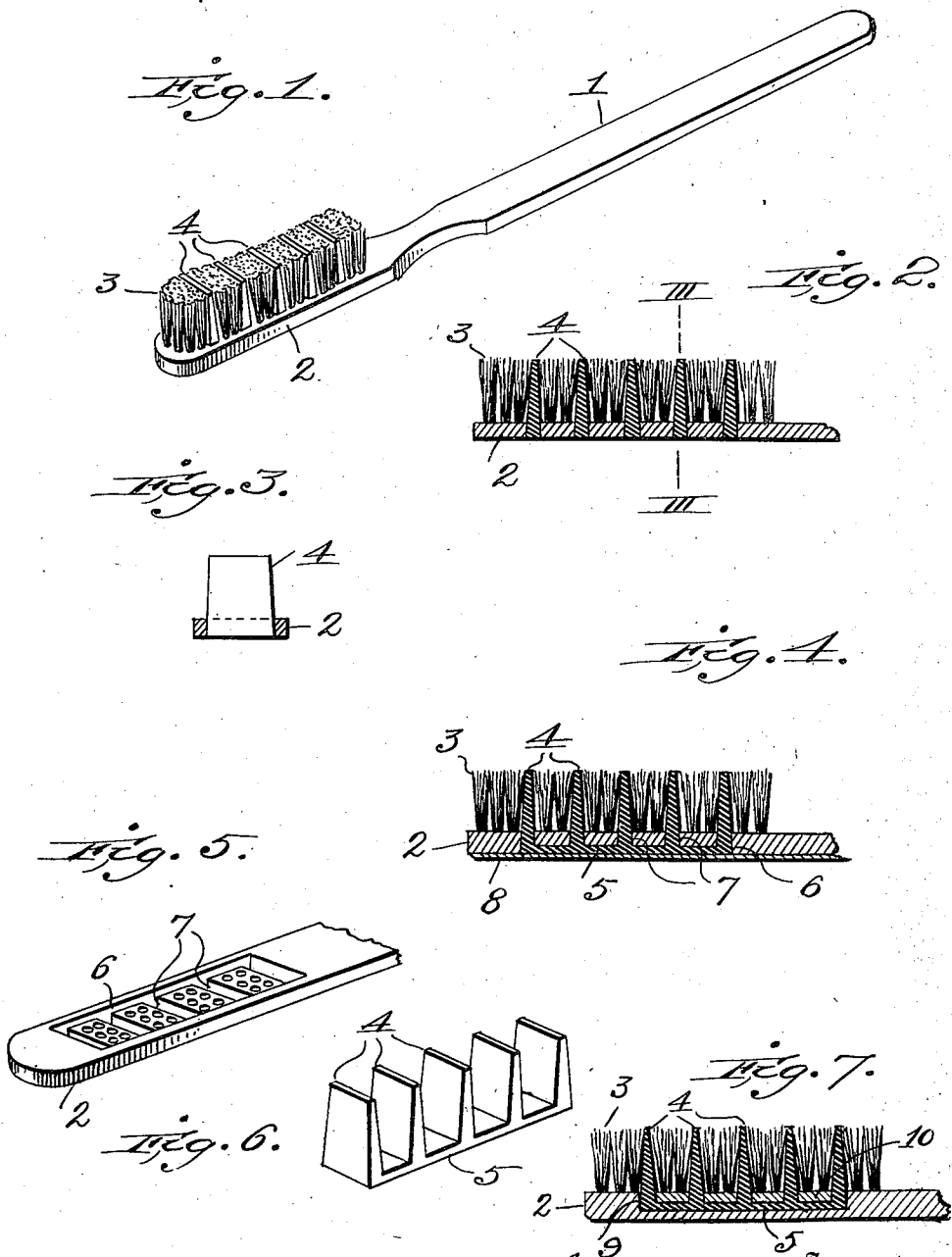


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TOOTH BRUSH.  
APPLICATION FILED AUG. 31, 1915.

1,191,556.

Patented July 18, 1916.



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# UNITED STATES PATENT OFFICE.

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## TOOTH-BRUSH.

1,191,556.

Specification of Letters Patent. Patented July 18, 1916.

Application filed August 31, 1915. Serial No. 48,204.

*To all whom it may concern:*

Be it known that I, PHILIP W. BLAKE, a citizen of the United States, residing at Cumberland, in the county of Allegany and State of Maryland, have invented certain new and useful Improvements in Tooth-Brushes, of which the following is a specification.

My invention relates to tooth brushes, and has for its object to provide an improved construction of the same, wherein means will be afforded for applying more efficiently the tooth powder or paste, commonly used with tooth brushes, to the teeth.

My invention also contemplates certain other minor improvements, both in construction and operation, as will hereinafter be more definitely pointed out and claimed, reference being had to the accompanying drawing, in which:—

Figure 1 is a perspective view of a tooth brush embodying my improvement. Fig. 2 is a longitudinal sectional view of the head of the brush. Fig. 3 is a transverse section on the line III—III of Fig. 2. Fig. 4 is a view similar to Fig. 2, illustrating a modification. Fig. 5 is a view of the back of the head of the tooth brush shown in Fig. 4. Fig. 6 is a detail perspective view of the flexible blades shown in Fig. 4. Fig. 7 is also a view similar to Fig. 2, illustrating a further modification.

Similar numerals of reference designate corresponding parts in the different views.

In the said drawing, referring more particularly to Figs. 1, 2 and 3, the reference numeral 1 denotes the handle of the tooth brush, and 2 the head thereof, the latter being provided with the usual bristles 3. Inserted through transverse slots disposed at intervals in the head 2 of the brush are the blades 4, the same being composed preferably of rubber, though they may be of any other flexible material. Said blades are flat pieces of material preferably tapered toward their projecting ends, both longitudinally and transversely, as seen in Figs. 2 and 3, this shape adapting them particularly for insertion through the slots in the brush head 2. It will be understood that in use these blades 4 act to wipe the powder or paste with the brush against the teeth in a more efficient manner than would be the case with the use of bristles alone, the shape of which permits

the movement of the particles of powder or paste past the same.

It will be understood that the blades may be of such length as to protrude above the bristle surface, or they may be somewhat shorter than the bristle surface, and they may be concaved or convexed or shaped otherwise along their edges. A further function of disposing these blades at intervals transversely of the brush head is that the brush may be used to cause said blades to come in contact with the inside edges of two adjoining teeth, thus polishing or cleaning the same with an up and down movement of the brush.

In Figs. 4, 5 and 6, I have shown a slightly modified construction, wherein the blades 4, instead of being formed separate, are molded upon a common backing 5. With this construction, it is preferred that the back of the tooth brush head 2 be recessed at 6 to receive said backing 5, the transverse slots 7 receiving the blades 4, in a manner readily understood. With this construction, I prefer to finish the back of the brush, when the blades 4 have been inserted therein, with a covering 8 of any suitable material, such as celluloid.

In Fig. 7, I have shown a further modified construction, wherein the brush head is recessed on its front face, as at 9, and the common backing 5 of the blades 4 is secured in the bottom of the recess in any suitable manner. The groups of bristles between the blades are provided with separate backs 10 which are secured to the common backing of the blades and to the bases of the blades by cement or otherwise.

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

1. A tooth brush, embodying a series of thin flexible blades disposed transversely of the brush head in spaced relation, and bristles interposed between said blades.

2. A tooth brush, embodying a series of thin flexible blades passed through slots in the brush head and disposed transversely of the brush head in spaced relation, and bristles interposed between said blades.

In testimony whereof, I have hereunto affixed my hand this 30th day of August, 1915.

PHILIP W. BLAKE.