

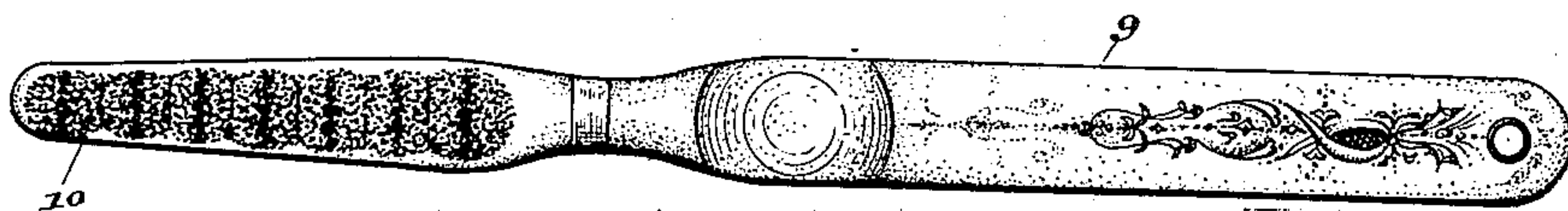
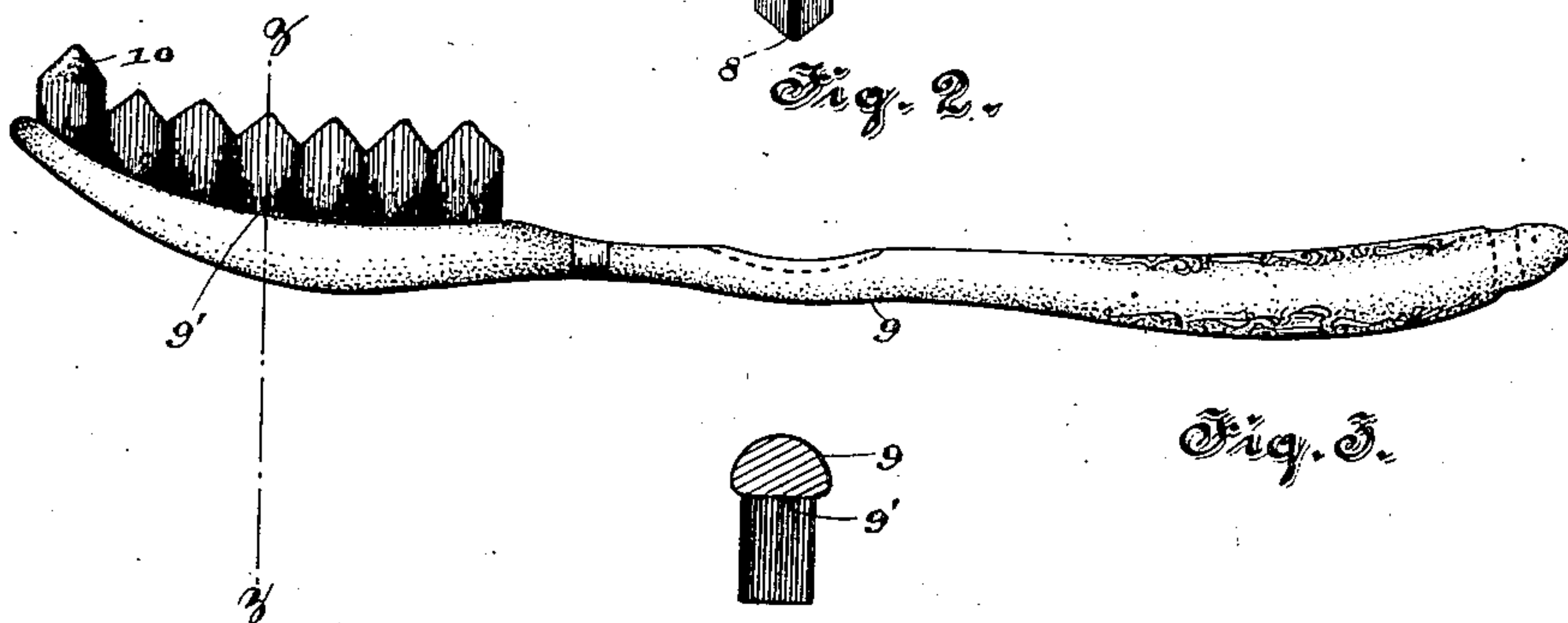
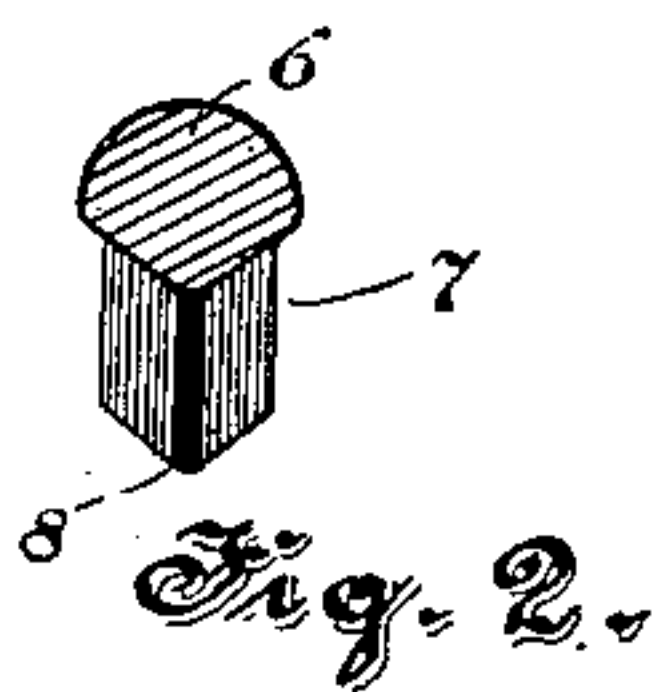
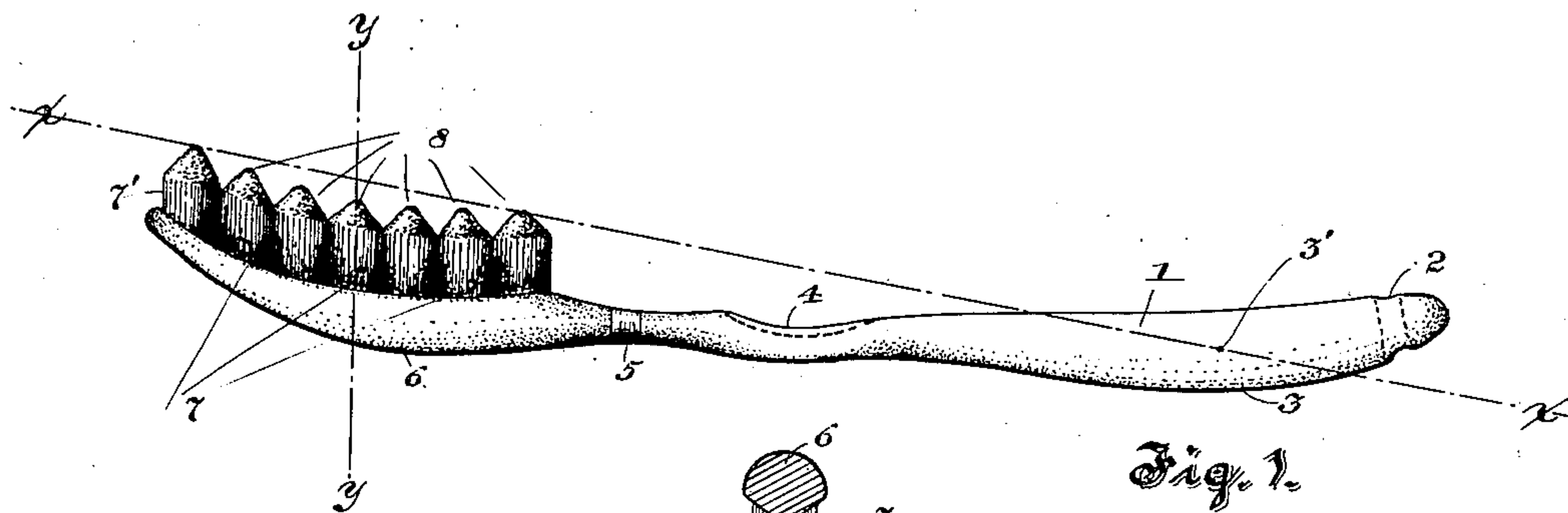
D. H. DANEK.

TOOTH BRUSH.

APPLICATION FILED JUNE 12, 1909.

958,371.

Patented May 17, 1910.



Witnesses:

*W. E. Smith*  
*A. A. Olson*

Fig. 6.

Inventor:

David H. Danek,  
By *Charles H. Porter*  
his Attorney.



# UNITED STATES PATENT OFFICE.

DAVID H. DANEK, OF CHICAGO, ILLINOIS.

## TOOTH-BRUSH.

958,371.

Specification of Letters Patent.

Patented May 17, 1910.

Application filed June 12, 1909. Serial No. 501,771.

*To all whom it may concern:*

Be it known that I, DAVID H. DANEK, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Tooth-Brushes, of which the following is a specification.

My invention relates to improvements in tooth brushes, the object of the invention being to provide a tooth brush so designed that it may be readily turned or oscillated on a longitudinal axis in the mouth giving the bristles of the brush an up and down motion relative to the teeth.

A further object of my invention is to arrange the plurality of tufts of bristles of the brush in a row, the pointed tip of each tuft being so spaced that they will readily enter the teeth interstices and so arranged that all of which may contact simultaneously with the teeth and at substantially the same pressure, whereby the cleansing action will be uniformly distributed and the wear minimized on the more exposed surfaces of the teeth enamel.

A further object of my invention is to provide stiff or coarse bristles composing the central portion of each tuft, this provision being made since stronger bristles are required to cleanse the teeth adjacent the interstices thereof.

A further object of my invention is to provide such a curvature of that portion of the brush handle in which the bristles are secured that the brush may readily enter the mouth for brushing the molar teeth.

A further object of my invention is to provide means to be incorporated in the handle of the brush whereby any particular brush may be identified. And a further object is to provide such a shape of handle that the thumb and palm of the hand may conform thereto. Other objects will appear hereinafter.

With these objects in view my invention consists in the novel construction and arrangement of parts which will be hereinafter described and more particularly pointed out in the appended claims.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification, and in which, Figure 1 is a side elevation of my improved tooth brush in its preferred form, Fig. 2 is a transverse section thereof taken on line *y—y* of Fig. 1, Fig.

3 is a side elevation of a modified form of tooth brush, Fig. 4 is a transverse section taken on line *z—z* of Fig. 3, Fig. 5 is a plan view of the modified form of tooth brush, and Fig. 6 is a plan view of the preferred form shown in Fig. 1.

Referring now to the drawings, 1 designates the tooth brush handle and 2 the perforation provided in the same at one extremity thereof whereby the brush may be hung on a hook when not in use. The enlarged curved portion 3 of the handle is shaped to conform to the contour of the palm of the hand, and a cavity or depression 4 is provided at or near the center of the handle to receive the ball of the thumb, thus preventing the handle from slipping in the hand. A band 5 of inlaid colored material is provided in the tooth brush, so that brushes kept together having bands of different colors may be readily identified. The portion 6 of the handle is curved as shown in order that it may readily enter the mouth, the section shown in Fig. 2 being preferred since the bristles of the tufts 7 which have conical tips 8 may be all of approximately the same length.

It will be seen that the tuft 7' is shorter than the tuft 7, the object of this construction being to allow a free and easy action in the mouth. The preferred form of handle and arrangement of tufts is such that the tips of the tufts 7 and 7' will lie in a straight line *x—x* passing through the center 3' of the curved portion 3. This shape is provided in order that the brush may be conveniently held in the hand when the teeth are being brushed.

In the modified form of tooth brush the handle 9 is similar to that of the preferred form except the portion in which the bristles are set is preferably as shown in Fig. 4, the flat surface 9' being parallel to the V-shaped ridges of the tufts of bristles. The tuft 10 in this brush is similar to the tuft 7' in the preferred form, which together with the other tufts have central stiff coarse bristles.

It will be observed that the tips of the tufts in which brush are so spaced as to enter the teeth interstices in the most natural manner and that the handle is so formed that a rotary motion of the brush is permissible.

Various slight changes might be made in the general form and arrangement of parts described without departing from my in-



vention, and hence I do not restrict myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit  
5 and scope of the appended claims.

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

1. In a tooth brush, a handle and laterally  
10 extending bristles arranged adjacent one end thereof, said bristles being arranged in tufts and the center of each tuft being formed of relatively stiff and coarse bristles, said centers of the tufts being spaced regu-  
15 lar distances apart to readily fit between the teeth, substantially as described.

2. In a tooth brush, a handle and laterally extending bristles arranged adjacent one end thereof, said bristles being arranged in tufts and each tuft being formed with rela- 20 tively coarse and stiff bristles extending from side to side thereof forming transverse parallel rows of stiff bristles spaced at regular intervals apart and adapted to enter between the teeth, substantially as described. 25

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

DAVID H. DANEK.

Witnesses:

JOSHUA R. H. POTTS,  
HELEN F. LILLIS.