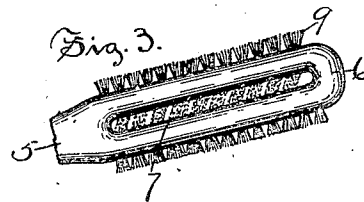
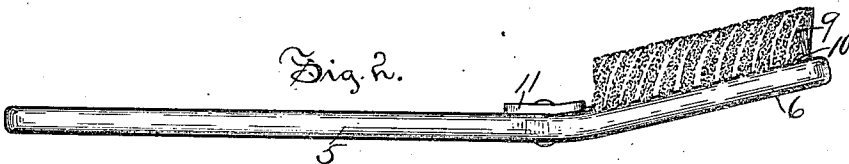
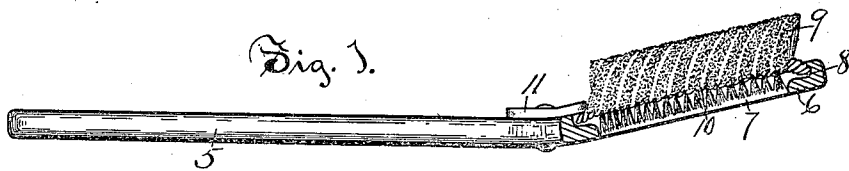


W. J. HINES.
TOOTHBRUSH.
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TOOTHBRUSH.

Application filed September 11, 1920. Serial No. 409,628.

To all whom it may concern:

Be it known that I, WILLIAM J. HINES, a subject of the King of Great Britain, and a resident of Hartford, in the county of Hartford and State of Connecticut, have invented new and Improved Toothbrushes, of which the following is a specification.

My invention relates to the class of devices above named, and an object of my invention, among others, is to provide a device of this kind that shall be extremely effective in use and one that may be readily cleansed.

One form of brush embodying my invention and in the construction and use of which the objects herein set out, as well as others, may be attained, is illustrated in the accompanying drawings, in which—

Figure 1 is a view in side elevation of a brush embodying my invention with the back cut in central lengthwise section.

Figure 2 is a view in side elevation of my improved brush.

Figure 3 is a rear view of the back of the brush, the handle being broken off.

Figure 4 is a view in cross section through the back of the brush.

In the accompanying drawings the numeral 5 indicates a handle and 6 a back of a brush embodying my invention, which parts may be of any suitable material. An opening 7 is formed through the back 6 from the front to the rear thereof, this opening being preferably of a length nearly equal to that of the back, and of a width nearly equal to the width of the back, said opening preferably having parallel sides.

Recesses 8 are formed at opposite ends of the back to receive the ends of a brush head comprising bristles 9 twisted into a wire core 10 that has some flexibility and the protrud-

ing ends of which are entered into the recesses within which said ends may be held in any suitable manner, as by means of a latch 11 appurtenant to one of the recesses.

The opening 7 facilitates the formation of the recesses 8 by providing clearance for the tools used in making the recesses. This opening further serves an extremely useful purpose in enabling a stream of water to be projected through the opening into the back of the brush head and to penetrate to the twisted wire cord thereof, thereby enabling the brush to be readily cleaned. A very important feature of this opening is that of preventing turning movement of the brush head, the bristles of such head projecting into said opening to such extent as to support and hold the head against turning movement. This opening also permits the head to have a yielding action in use, as the bristles will sink into the opening and thereby permit yielding action of the core, and this yielding action is a desirable feature of my improved brush, as among other advantages it will tend to prevent the wire core from coming in contact with the teeth.

I claim—

1. A tooth brush including a back, a twisted-in wire brush head having projecting ends, and means for securing said ends, said back having an opening spanned by said head and of a width to permit spring action of the brush head therein.

2. A tooth brush including a back having an opening therein extending for substantially its whole length, and a twisted-in-wire brush head having bristles projecting into said opening to hold said brush against turning movement.

WILLIAM J. HINES.