W. J. HINES.

TOOTH BRUSH.

APPLICATION FILED DEC. 8, 1916.

1,296,186.

Patented Mar. 4, 1919.

Fig. 1.

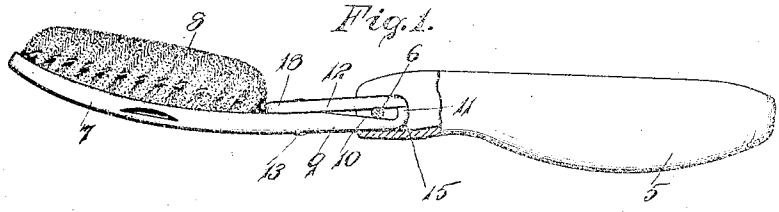


Fig. 2.

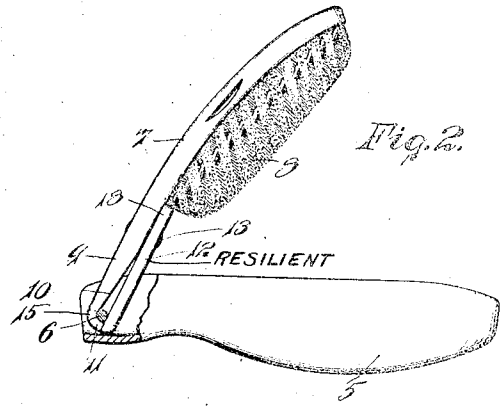


Fig. 3.

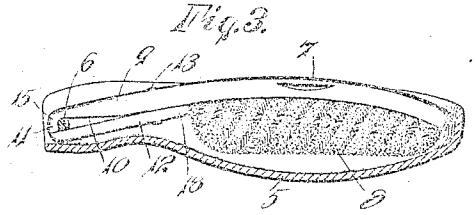


Fig. 4.

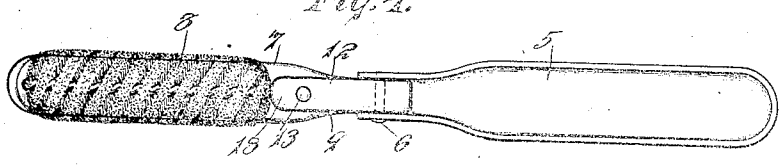
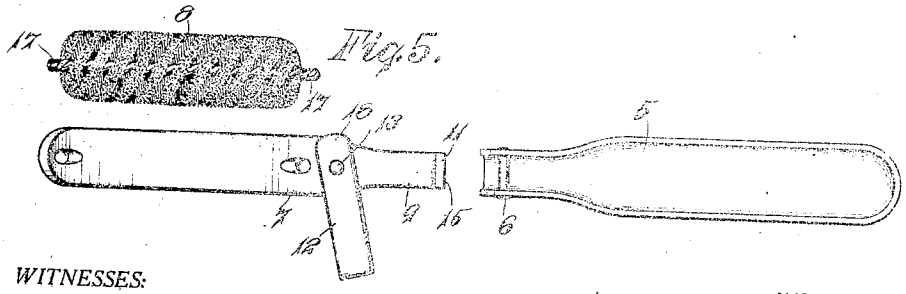


Fig. 5.



WITNESSES:

INVENTOR.

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UNITED STATES PATENT OFFICE.

WILLIAM J. HINES, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE PULLED BRUSH COMPANY, OF HARTFORD, CONNECTICUT, A CORPORATION OF CONNECTICUT.

TOOTH-BRUSH.

1,296,186. Specification of Letters Patent. Patented Mar. 4, 1919.

Application filed December 3, 1918. Serial No. 135,745.

To all whom it may concern:

Be it known that I, WILLIAM J. HINES, a subject of the King of Great Britain, residing at New Britain, in the county of Hartford and State of Connecticut, have invented a new and Improved Tooth-Brush, of which the following is a specification.

My invention relates to the class of tooth brushes in which the brush part is arranged to be inclosed when not in use within the handle, the latter constituting a case, and an object of my invention, among others, is to provide such a tooth brush with means for securing it in its open position, with means whereby it may be readily detached from the handle; a further object is to provide a brush of the character described that shall be inexpensive in its construction and efficient in its operation.

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 parts broken away to show construction and with the brush extended.

Fig. 2 is a view in side elevation showing the brush in a partially folded position.

Fig. 3 is a view in lengthwise section through the brush handle showing the brush folded therein.

Fig. 4 is a face view of a brush with the parts in the same position as in Fig. 1.

Fig. 5 is a face view showing the parts of the brush separated.

In the accompanying drawings the numeral 5 indicates the handle that is closed at its sides, back, and outer end, the opposite end and front being open, and the handle thus constituting a case. A pivot 6 extends between the side parts at one end and constitutes a pivotal arrangement for attaching the brush to the handle.

The brush consists of a back 7, brush tuft 8, and a shank comprising a member 9 and a retainer. The shank is of a width substantially that of the space between the sides of the handle at the pivot 6, and the member 9 has a notch 10 on one side that is tapered from a lip 11 outwardly to the surface of the shank, the lip 11 being of a length substantially equal to or a little greater than the diameter of the pivot 6. A retainer 12 comprising a portion of the shank is pivotally attached to the member 9, as by means of a pivot 13 extending through the parts. This retainer extends across the notch 10 and closes it and thus serves as a means for removably retaining the pivot in the notch. The parts above described, and those comprising the shank member 9 and retainer, either or both, are preferably composed of resilient material so that said member 9 and the retainer may be sprung apart sufficiently to permit the pivot 6 to pass between them for the purpose of detaching the brush from the handle. When the parts are in the position shown in Fig. 1 of the drawings, the back of the shank rests against the back of the handle or case on opposite sides of the pivot so as to lock the brush against pivotal movement in either direction. When, however, the brush is pulled outwardly to its farthest extent the pivot 6 will lie against the lip 11 and the brush may now be turned on its pivot, the curved edge 15 at the end of the shank facilitating this movement.

The brush tuft 8 is removably secured to the back 7 as by means of projections 17 removably located in recesses in the back. In addition to its function as a retainer for attaching the brush to the handle, the part 12 also serves as a retainer for the brush tuft 8, the end 18 of the retainer overlying one of the recesses in the back 7 in which a projection 17 is located and thus serving to removably secure the brush 8 in place.

In accordance with the provisions of the patent statutes, I have described the principle of operation of my invention, together with the apparatus which I now consider to represent the best embodiment thereof; but I desire to have it understood that the apparatus shown is only illustrative, and that the invention can be carried out by other means.

I claim:

1. A cleaning implement comprising a handle having a pivot, a cleaning device having a shank, and a member secured to the shank, said shank and member having a slot between them to receive said pivot and one of them being resilient to permit removal of the shank from the pivot.

2. A brush handle having a pivot, a brush back having a recess, a shank extending from said brush back, a brush tuft having a projection to enter said recess, and a member pivotally attached to said shank to cover

said recess and to retain the pivot in engagement with said shank.

3. A tooth brush comprising a hollow handle forming a casing, a pivot on said handle, a brush back having a recess therein, a shank extending from said back and having a notch therein, a brush tuft having a projection to enter said recess, and a member pivotally attached to said shank to overlie said recess and to extend across said notch to form a slot to receive said pivot.

4. A brush handle having a pivot thereon, a shank, and a member secured to said shank, said member and shank being shaped to provide a slot between them and to give a wedge shape to said shank to cause the handle and shank to press one against the other on opposite sides of the pivot when it is in the narrower portion of the slot and in its locked position.

5. A handle having flanged side parts forming a casing for a cleaning device, a pivot extending between said side parts, a shank on said device adapted to be inserted between said side parts and having a tapered notch to receive said pivot, and a resilient retainer attached to said shank to form one side of a slot comprising said notch.

6. A brush handle comprising flanged side parts forming an inclosure for a brush, a pivot extending between said side parts, a shank slidable between said side parts and having a tapered notch, the deeper end of which is toward the end of the shank, and a retainer attached to the shank and covering said notch, said shank and back of the casing resting against each other on opposite sides of the pivot when it is in the narrower part of the notch.

WILLIAM J. HINES.

Witness:
RUBY M. GLADWIN.