Tho's. F. Maury.
74560

Tooth Brush.

PATENTED
FEB 18 1868

Fig. 1.

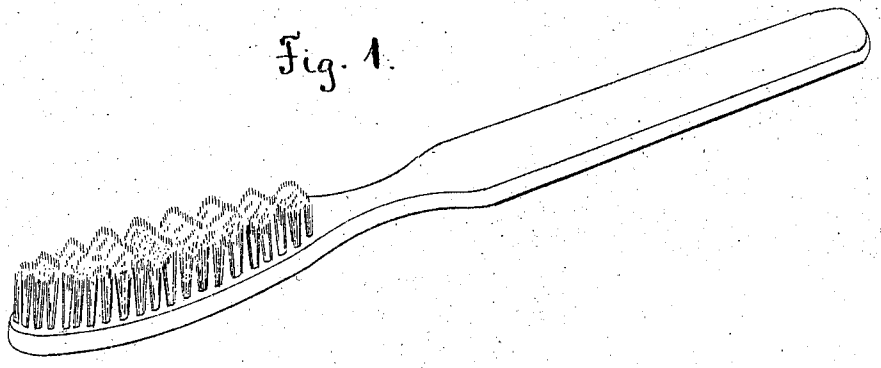
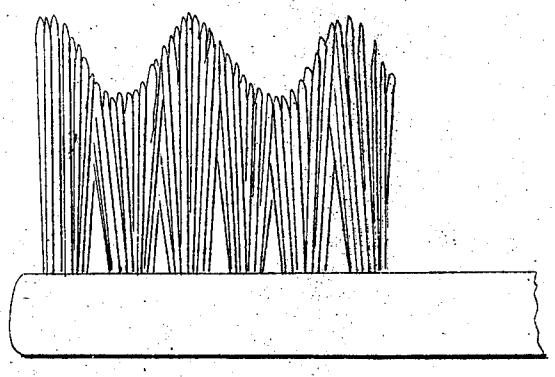


Fig. 2.



Thomas F. Maury
by his attorney
A. Burk

Witnesses.
Chas. Bailey
Chas Page. Jr.

United States Patent Office.

THOMAS F. MAURY, OF WASHINGTON, DISTRICT OF COLUMBIA.

Letters Patent No. 74,560, *dated February* 18, 1868.

IMPROVED TOOTH-BRUSH.

The Schedule referred to in these Letters Patent and making part of the same.

TO WHOM IT MAY CONCERN:

Be it known that I, THOMAS F. MAURY, of Washington, in the county of Washington, and District of Columbia, have invented certain new and useful Improvements in Tooth-Brushes; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings.

Upon examination of tooth-brushes, such as are now sold and used generally, it will be found that the ends of the trimmed bristles are jagged, and have one or more sharp edges. The cutting or injuring of the gums by the use of such brushes is a matter of daily occurrence, and the consequent inconvenience and annoyance are universally felt; and, moreover, the ends of the bristles are of such size as to be incapable of reaching those parts between the teeth where brushing is most needed.

My object is to remedy these evils, and to this end my invention essentially consists of a tooth-brush in which the ends of the bristles are smoothed and polished substantially in the manner hereinafter specified.

In order to realize my invention, it is necessary that the ends of the bristles which compose the brush should be brought into frictional contact with some hard body, as, for instance, a grindstone of the quality of those which usually are attached to and accompany sewing-machines, or, if desired, a fine emery-wheel may be used. In fact, any suitable material which, when in frictional contact with the brush, will produce the attrition requisite to grind and smooth or taper off the ends of the bristles, may be employed.

Let it be supposed, for example, that an ordinary tooth-brush is to be prepared, and that a grindstone or wheel, capable of being rotated at the requisite speed by any ordinary or suitable means, is employed for this purpose. After the stone or grinding-surface is put in motion, the brush is applied to it, so that the ends of the bristles will be in contact with the surface of the stone, and in this position it is pressed down upon the stone with the force necessary to insure the requisite frictional contact between the two. In most cases it is only necessary to grind the ends of the bristles in the direction of the length of the brush, but they may also be ground in the other direction if desired, the brush in this case being held crosswise to the stone. A few moments will suffice to reduce the rough and jagged ends, and sharp edges of the bristles, and to cause them to have a smooth and uniform surface throughout, tapering gradually towards the ends. When the brush has been subjected a sufficient length of time to this grinding operation, of which, of course, the operator or workman must be the judge, the brush may be taken to another wheel, provided on its periphery with bristles, in other words, a rotary brush, by means of which the dust and grit which have entered the brush during the previous operation will be removed. Moreover, by this grit or powder, and the rotary brush, the bristles will become perfectly polished and smooth in every part.

This form of the bristles, after undergoing this treatment, is shown in Figure 1, and more plainly in Figure 2 of the accompanying drawings, which represents a portion of the brush and bristles on an enlarged scale. It will be seen that the ends of the bristles have the tapering formation which is essential to the object I have in view.

It will be understood, of course, that instead of using a rotary grinder or polisher, a stone or other suitable device, having a flat surface, and a reciprocating or back-and-forth motion, may be employed with equally good results, or the stone may be stationary, and the brush be rubbed upon it, it being immaterial which of the two moves, so long as the requisite attrition is effected.

In order to thus prepare tooth-brushes in which the ends of the bristles are cut, so as to give the brush a serrated or indented surface, the surface of the grinding-tool must have a correspondingly serrated or indented formation. To this end a series of thin stones may be mounted upon a shaft if they are designed to rotate, or in a frame if they are to remain stationary, or to have only a reciprocating movement, in such manner as to present their edges to the brush, the distance between them being graduated or regulated by means of washers, or other suitable means, so as to conform to the indentations in the brushes. The grinding-edges fit in the indentations of the brush, which is pressed down upon them, and the frictional contact between the two causes the ends of the bristles in the indentations to be thoroughly ground and smoothed, as before. After the brush has been subjected to this operation the longer bristles may be smoothed and polished by applying them to an ordinary stone, as above mentioned. The ends of the bristles by this means are not only smoother and polished, but have a tapering formation which enables them to penetrate the intervals between the teeth, and to

cleanse parts of them which are not accessible to ordinary bristle-brushes, and an important advantage is thus obtained, which will be readily appreciated without further explanation.

Having now described my invention, and the manner in which the same is or may be carried into effect, what I claim, and desire to secure by Letters Patent, is—

A tooth-brush, in which the ends of the bristles of which the brush is composed are ground or smoothed and polished, substantially in the manner and for the purposes herein described.

In testimony whereof, I have signed my name to this specification before two subscribing witnesses.

THOS. F. MAURY.

Witnesses:

M. BAILEY,

A. POLLOK.