J. SIMMONS.

TOOTH BRUSH.

APPLICATION FILED JUNE 15, 1914.

1,137,916. Patented May 4, 1915.

FIG. 1.

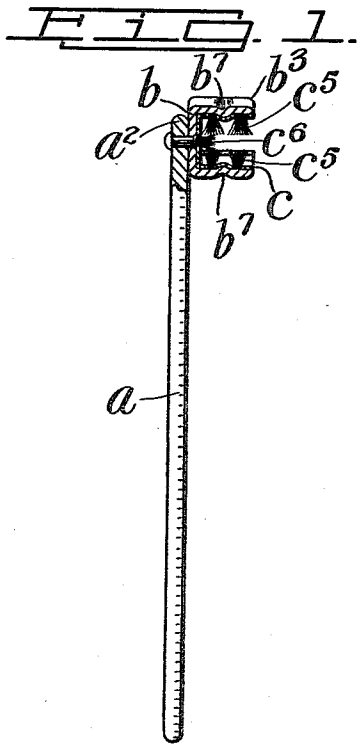


FIG. 2.

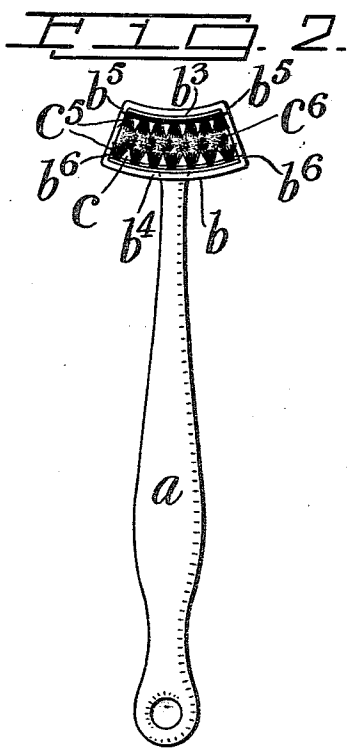


FIG. 3.

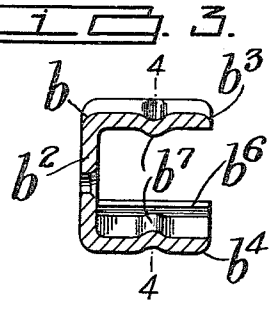


FIG. 4.

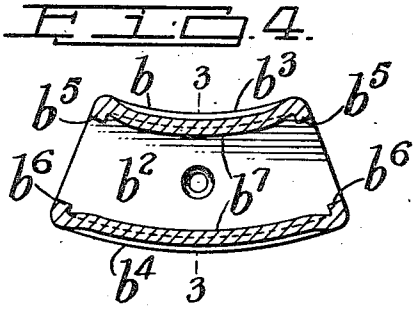


FIG. 5.

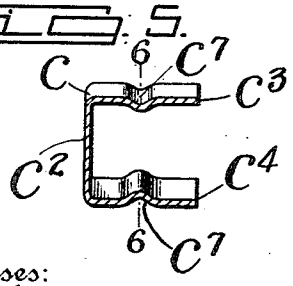
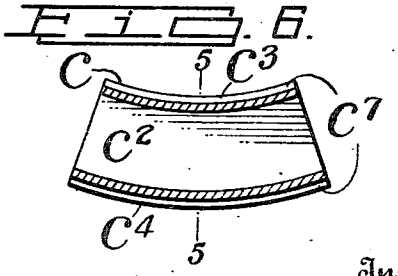


FIG. 6.



Witnesses:
H. E. Thompson.
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UNITED STATES PATENT OFFICE.

JOSEPH SIMMONS, OF NEW YORK, N. Y.

TOOTH-BRUSH.

1,137,916 Specification of Letters Patent. Patented May 4, 1915.

Application filed June 15, 1914. Serial No. 845,048.

To all whom it may concern:

Be it known that I, JOSEPH SIMMONS, a citizen of the United States, and residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Tooth-Brushes, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to tooth brushes, and the object thereof is to provide an improved device of this class which consists of a handle, a brush holder pivoted to one end thereof and a brush member adapted to be detachably secured in said brush holder and the construction and arrangement of which is such that both the inner and outer sides of the teeth may be thoroughly brushed at the same time, said brush member being adapted to be detached for cleaning and other purposes whenever desired, and with this and other objects in view the invention consists in a device of the class specified, constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:—

Figure 1 is a sectional side view of my improved brush; Fig. 2 a front view. Fig. 3 a transverse section of the brush holder on the line 3—3 of Fig. 4; Fig. 4 a longitudinal section of the brush holder on the line 4—4 of Fig. 3; Fig. 5 a transverse section of the brush frame on the line 5—5 of Fig. 6; and, Fig. 6 a longitudinal section of the brush frame on the line 6—6 of Fig. 5.

In the practice of my invention, I provide a brush handle a and pivoted to one side of the end a^2 thereof is a brush holder b. The brush holder b is arc-shaped in the form and U-shaped in cross section, and comprises a back b^2, an inner side b^3 and an outer side b^4, said sides being arc-shaped in form and the end portions of the inner side b^3 are provided, in the form of construction shown, with inwardly directed shoulders b^5, and the end portions of the outer side b^4 are provided with corresponding inwardly directed shoulders b^6.

The brush proper which is shown at c comprises an arc-shaped frame similar in form to the brush holder b, and comprising a back portion c^2 and inner and outer side walls c^3 and c^4, and the inner surfaces of the inner and outer walls c^3 and c^4 of the brush frame c are provided with the usual brush material c^5, as clearly shown in Figs. 1 and 2, and the back portion c^2 of the brush frame is also provided with brush material as shown at c^6.

The brush proper comprising the frame c with the brush material c^5 and c^6, as shown and described, is insertible into the brush holder b and detachable therefrom and, in the form of construction shown, the inner and outer walls of the brush holder are provided with inwardly directed beads or projections b^7, and the inner and outer walls of the brush frame are provided with corresponding grooves or recesses c^7, and the brush frame, or the sides thereof, are preferably made slightly elastic and the said brush may be inserted into the holder in which operation the beads or projections b^7 will enter the grooves or recesses c^7 and hold the brush in said holder, and said brush may be detached from said holder whenever desired for cleaning or other purposes. This device may be so manipulated as to thoroughly clean the teeth of either jaw, both inside and outside at one operation, in which operation the device is manipulated so that the teeth will pass through the brush longitudinally thereof and be thoroughly brushed on both sides and over their entire surface, and the fact that the brush as a whole involving the holder b and brush proper c is pivoted to the handle facilitates the above operation, as will be readily understood.

While I have described the parts b and c^2 as U-shaped in cross section, it will be understood that this exact form may be varied, all that is necessary being to provide trough-shaped devices of this class which will permit of the construction and operation hereinbefore set out, and changes in and modifications of the details of construction herein shown and described may be made, within the scope of the appended claim, without departing from the spirit of my invention or sacrificing its advantages.

It will also be understood that the holder b and brush frame c may be made of any preferred material as may also the handle a.

Having fully described my invention,

what I claim as new and desire to secure by Letters Patent, is:—

A tooth brush comprising a handle to the side of one end of which is pivoted a brush, comprising a holder which is arc-shaped in form and U-shaped in cross section, and a brush frame of the same general form as the holder and adapted to be inserted thereinto and removed therefrom, said brush frame being provided with brush material, the side walls of the holder being also provided adjacent to the ends thereof with vertical recesses adapted to receive the ends of the side walls of the brush frame, and said side walls of the holder being also provided with inwardly directed projections and the side walls of the brush frame with corresponding recesses to receive said projections.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 13th day of June, 1914.

JOSEPH SIMMONS.

Witnesses:
C. MULREANY,
H. E. THOMPSON.