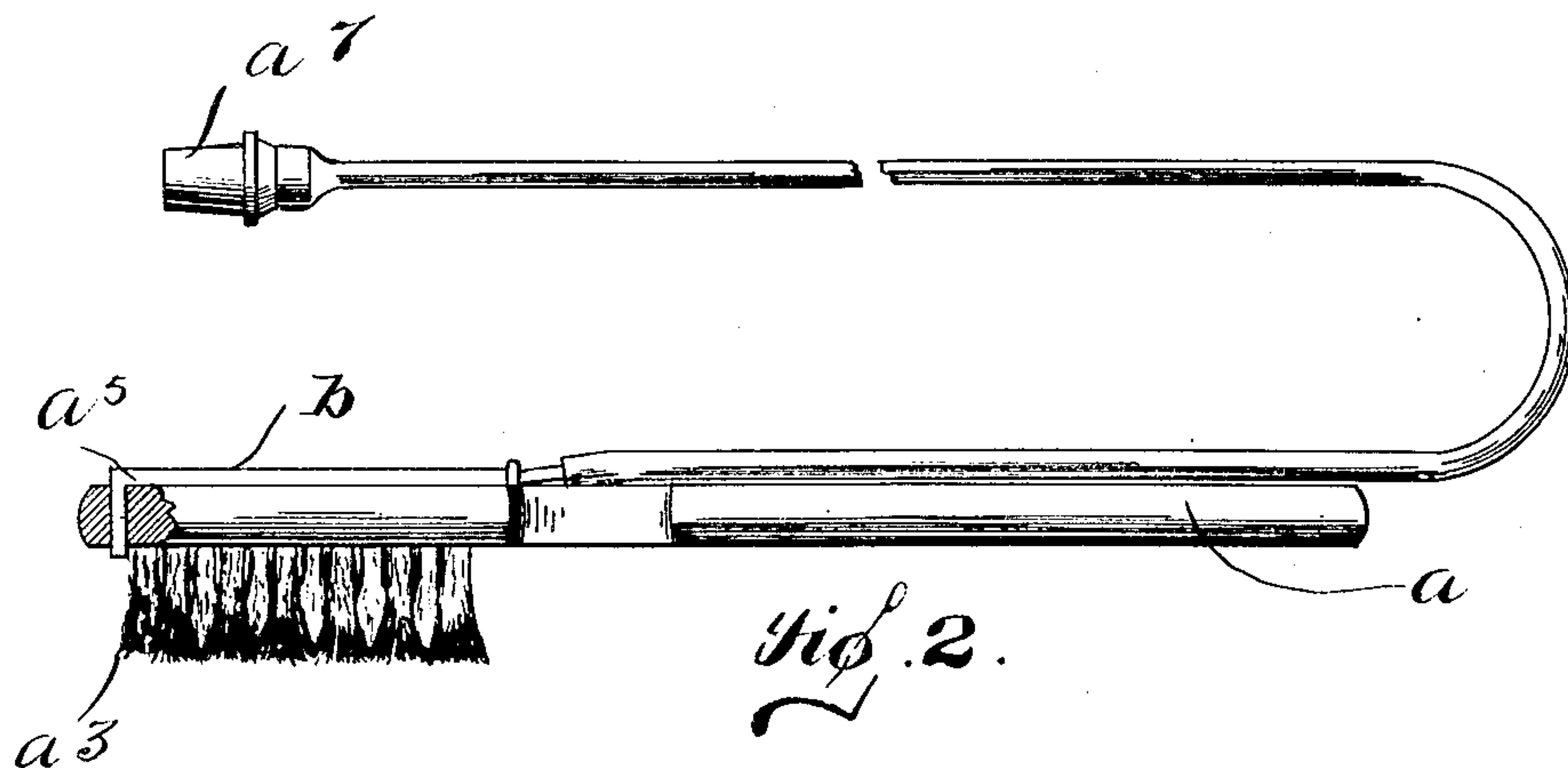
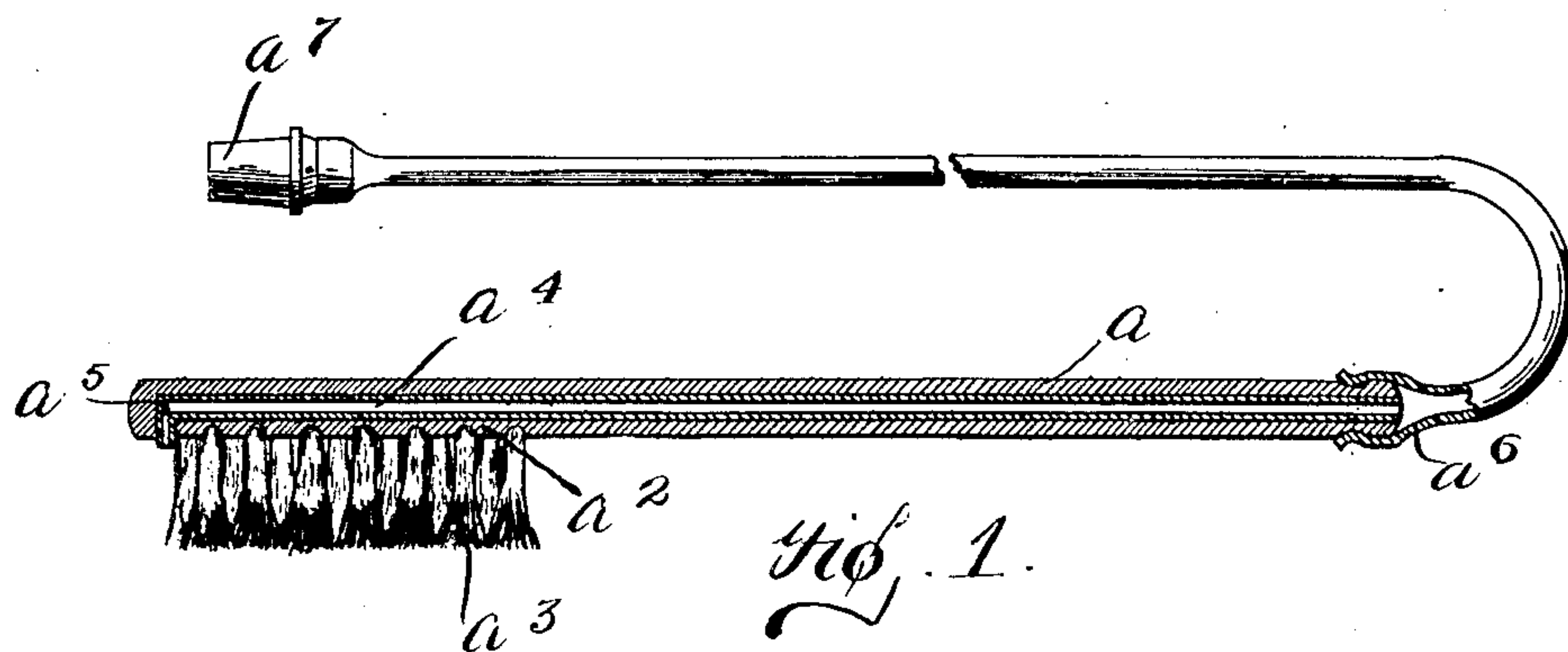


C. L. ALEXANDER.  
TOOTH BRUSH.  
APPLICATION FILED OCT. 4, 1905.

913,184.

Patented Feb. 23, 1909.



WITNESSES:  
Philip Scrull  
E. J. Dandenberg

INVENTOR  
Charles L. Alexander

BY  
R. S. Dandenberg  
Attorney



# UNITED STATES PATENT OFFICE.

CHARLES L. ALEXANDER, OF CHARLOTTE, NORTH CAROLINA.

## TOOTH-BRUSH.

No. 913,184.

Specification of Letters Patent.

Patented Feb. 23, 1909.

Application filed October 4, 1905. Serial No. 281,274.

*To all whom it may concern:*

Be it known that I, CHARLES L. ALEXANDER, a citizen of the United States, residing at Charlotte, in the county of Mecklenburg and State of North Carolina, have invented certain new and useful Improvements in Tooth-Brushes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of my invention is the provision of a tooth-brush constructed with means permitting more effective flushing of the mouth with liquid, such as water, than has been heretofore possible, such flushing means, in the use of the brush, materially assisting the bristles of the brush in dislodging particles of food matter between all the teeth, even those farthest back in the mouth, and in cleansing the teeth and purifying the mouth of the user.

With this object in view, and others appearing as the specification proceeds, the invention consists, broadly, in combination with a tooth-brush having a water-conduit either exterior or interior of the brush-back, the water-conduit having its exit arranged at the extreme forward end of that portion of the brush-back occupied by the bristles, the said exit being on that side of the brush-back occupied by the bristles; of a hollow connection with said water-conduit adapted to be attached to a source of liquid-supply under pressure, such as a water-spigot. And, furthermore, the invention comprehends the novel construction, combination, and arrangement of parts of a device characterized by my invention, as will be herein-  
after fully described and claimed.

In the accompanying drawings: Figure 1 is a central, vertical, longitudinal section of a tooth-brush, displaying my preferred form of invention applied thereto, and Fig. 2 is a side view of a tooth-brush embodying a slightly modified construction of my invention.

Referring to the drawings in detail, and first to Fig. 1 thereof, the tooth-brush has an ordinary back comprising a handle-portion  $a$  and a bristle-holding portion  $a^2$ , the latter carrying the usual bristles  $a^3$ . Interiorly of the back is a water-conduit  $a^4$ , extending longitudinally of the back from the rear end to a point near the extreme forward end

thereof, the water-conduit at said forward end terminating, preferably at a right-angle, as shown at  $a^5$ , so as to have its exit on that side of the back in which the bristles  $a^3$  are secured, and at a point unobstructed by the bristles, as shown clearly in the drawings. Adapted to be removably secured on the handle-portion  $a$  is a hollow, flexible connection  $a^6$ , preferably hollow, rubber tubing, whose other end may carry a cone-shaped cork plug  $a^7$  adapted to be pushed into the water-spigot and temporarily held therein by frictional contact or engagement.

In the use of the device, the tubing  $a^6$  is slipped over the end of the handle-portion  $a$ , the cork-plug at the other end of the tubing pushed into the water-spigot, and the handle of the latter turned more or less so as to get as large or as little projectile force of the water as may be required, whereupon a thin, but very effective, stream of water will issue with great rapidity and force from the exit of the water-conduit  $a^4$ , thus greatly helping and aiding the bristles in removing food matter from and between the teeth and around the gums of the mouth, and also satisfactorily flushing the mouth of the user, and whereby repeated and tiresome dipping of the bristles into water, in the cleaning of teeth, is obviated.

One of the great advantages which I claim for my construction of tooth-brush is that, by reason of the exit of the water-conduit being in a situation unobstructed by any bristles, a user of the brush will receive the full force of the current of water issuing from the water-conduit, and thus the force of the water is not lessened. If the water-conduit had its exit among the bristles, the bristles would form more or less of an obstruction to the free flow and the full force of the water issuing from the conduit.

Another great advantage which I claim for my construction of tooth-brush is that, by reason of the location and particular formation of the exit-branch of the water-conduit, whereby it is located at the extreme forward end of the bristle-holding portion  $a^2$  and disposed at preferably a right-angle to the main conduit  $a^4$ , no water will be thrown outside the mouth in any position of manipulation of the tooth-brush in the use thereof. If located elsewhere, water would be thrown outside the mouth in the use of the brush, which would be exceedingly objectionable.

Referring to Fig. 2, the tooth-brush is



shown as having an exterior water-conduit  
6, the exit end thereof being in the same  
position and of the same formation as shown  
in Fig. 1 and as described in connection with  
5 that figure. But this is not my preferred  
form, because it is somewhat clumsy and ob-  
structs the free use of the brush, as is evident.

Having thus fully described the nature of  
my invention, what I claim as new and  
10 desire to secure by Letters Patent is:

A tooth-brush of the character described,  
comprising a bristle holding portion and a  
handle portion integral therewith, a passage  
extending longitudinally through the brush  
15 from the extremity of said handle-portion

and terminating in an exit arranged at right  
angles to the longitudinal portion and at a  
point beyond the bristle-holding surface, and  
a water-conveying tube extending from the  
inlet end of said passage to a point slightly 20  
beyond the exit end thereof, whereby to form  
a conduit and nozzle for the water, sub-  
stantially as described.

In testimony whereof, I affix my signature,  
in the presence of two subscribing witnesses. 25

CHAS. L. ALEXANDER.

Witnesses:

H. L. DAVIS,

CHAS. L. DAVIS.