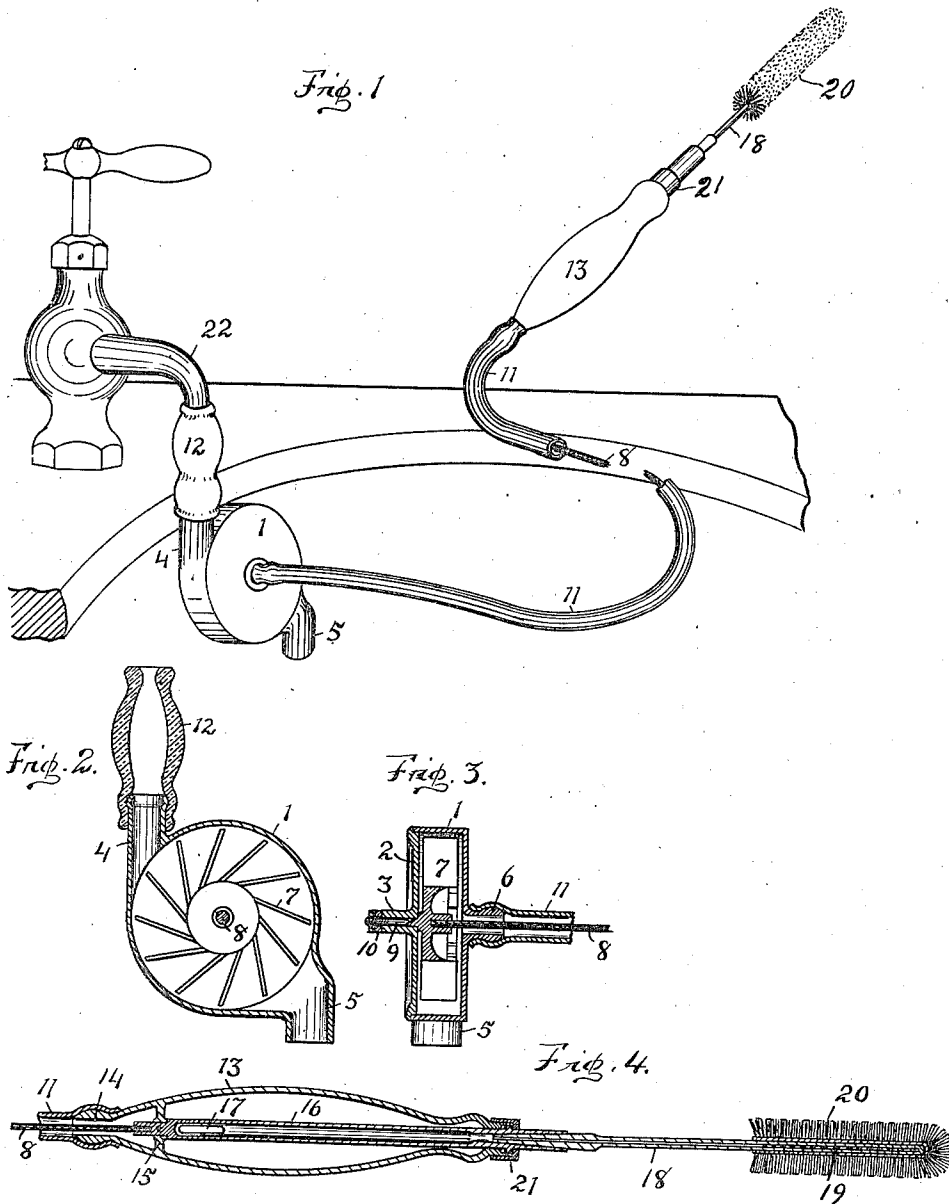


No. 736,607.

PATENTED AUG. 18, 1903.

C. R. LANE.
TOOTH BRUSH APPLIANCE.
APPLICATION FILED FEB. 24, 1903.

NO MODEL.



WITNESSES:

Quinn & Pope
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CHARLES R. LANE, OF FORT WAYNE, INDIANA.

TOOTH-BRUSH APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 736,607, dated August 18, 1903.

Application filed February 24, 1903. Serial No. 144,730. (No model.)

To all whom it may concern:

Be it known that I, CHARLES R. LANE, a citizen of the United States, residing at Fort Wayne, in the county of Allen and State of Indiana, have invented certain new and useful Improvements in Tooth-Brush Appliances; and I do 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, reference being had to the figures of reference and to the accompanying drawings upon which the same are marked, which form a part of this specification.

My invention relates to improvements in tooth-brush appliances; and the object of my improvement is to afford a rotative tooth-brush and means to drive the same arranged to be readily attached to an ordinary spigot, and another object is to supply the brush or polishing member with water.

I accomplish my objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the device attached to a spigot and with the tube broken away to show the flexible shaft. Fig. 2 is a vertical section showing the driving-wheel and its case. Fig. 3 is a section through the case and driving-wheel in a plane at right angles to that of Fig. 2, and Fig. 4 is a longitudinal section through the handle and polishing member.

Similar numerals of reference indicate corresponding parts throughout the several views.

My invention consists of a driving-wheel 7, (such as is ordinarily constructed to be driven by a jet of water,) which is arranged within a case 1. A tangentially-arranged inlet-spout 4 extends upward from the periphery of the case, and an outlet-spout 5 leads from the lower part of the case for the discharge. The driving-wheel 7 is mounted upon its stem 9, which is rotatively engaged in the bearing 3 in the case 1, and set-nuts 10 are fixed upon the end of the stem to adjust lateral play of the driving-wheel. A nipple 6 projects centrally from the side of the case, and thereon is attached a tube 11, of rubber. A flexible shaft 8 is fixed centrally to the driving-wheel 7 and passes out through the nipple 6 and

tube 11. The bore of said tube and nipple is sufficiently large as to allow a free passage of water therethrough from the case 1. The other end of the tube 11 is attached upon the end of the hollow handle 13, and the corresponding end of the shaft 8 passes through the end of the handle and is fixed to the end of the mandrel 16, which is rotatively mounted in said handle. The opening 14 in the handle is sufficiently large as to admit the passage of water into the handle 13 while the shaft 8 is in place. The mandrel 16 has an opening 17 and is hollow from said opening to its forward end. The rear end of the mandrel is mounted in a bearing 15 and its forward part rests in the forward end of the handle 13 and collar 21, which is mounted on the handle. The bore of the forward end of the mandrel 16 is tapered, so as to afford frictional attachment with the tapered shank of the brush or polishing member 20. The said shank 18 is hollow and has a series of outlet-openings 19 coincident with the brush mounted thereon. Thus, it will be observed, water may pass from the hollow mandrel through the shank 18 and into the brush 20.

A flexible rubber tube 12, having contracted ends, is fixed over the inlet-spout 4 and is adapted to be connected with a spigot by passing its upper contracted end over the spout 22 thereof. By means of this tube 12 my device may be attached to the spout of any ordinary spigot such as is used in lavatories.

In using my invention the case is connected, as above described, to a water-spigot, and the water running therefrom passes into the case and rotates the driving-wheel therein. The water then passes out of the case partly through the outlet-spout 5 and partly through the nipple 6 and tube 11. The water in the tube 11 passes into the handle 13 and through the opening 17 and then through the mandrel 16 into the shank 18, from which it is discharged through the series of openings 19 into the brush or polishing member. The brush is then inserted in the mouth of the operator and pressed against the teeth while the brush is rotating. The speed of the brush may be regulated by turning the spigot on or off accordingly, and the flow of water through the tube 11 into the brush may be accelerated by

holding a finger over the outlet-spout 5, so as to retard the discharge therefrom.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

5 In combination, a case 1; a driving-wheel mounted in said case; a nipple projecting centrally from said case; a hollow handle; a ro-
tative mandrel mounted in said handle and
10 having an opening for the passage of water; a polishing member connected with the mandrel and adapted to receive water therefrom;

a rubber tube connecting said case and handle; and a flexible shaft connecting said driving-wheel and mandrel and passing through said tube, the said tube being suited to convey water from said case to said handle.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES R. LANE.

Witnesses:

WILMER LEONARD,
JOSEPH L. TANCEY.