

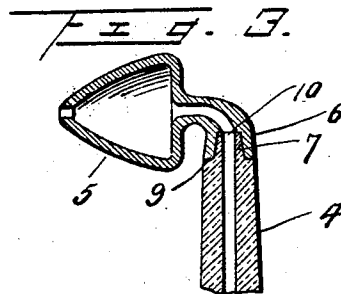
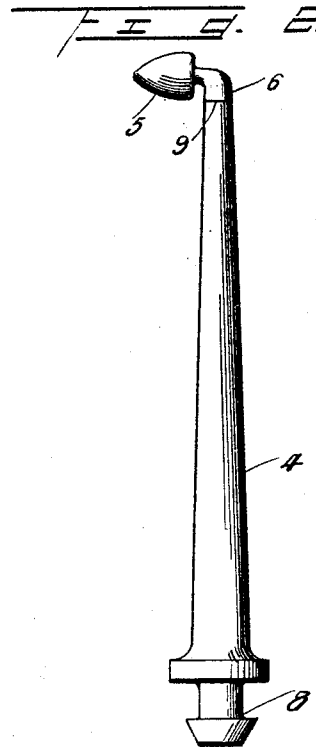
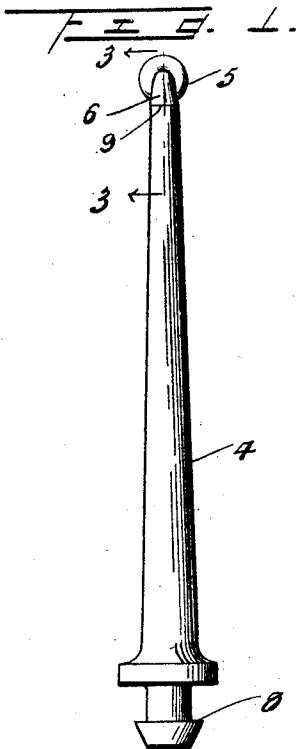
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W. J. LAUER

DENTAL HOT AIR SYRINGE OUTLET

Filed Oct. 3, 1921



Inventor
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UNITED STATES PATENT OFFICE.

WILLIAM J. LAUER, OF ARGYLE, MINNESOTA.

DENTAL HOT-AIR-SYRINGE OUTLET.

Application filed October 3, 1921. Serial No. 505,079.

To all whom it may concern:

Be it known that I, WILLIAM J. LAUER, a citizen of the United States, residing at Argyle, in the county of Marshall and State of Minnesota, have invented certain new and useful Improvements in a Dental Hot-Air-Syringe Outlet; 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.

This invention relates to an outlet means for hot air dental syringes.

The main object is to provide a construction wherein the outlet nozzle tube or part which carries the hot air point and enters the mouth of the patient cannot burn the mouth if such tube should accidentally contact with the mouth.

Another object is to provide a construction having a mouth-entering tube or the equivalent made from a material substantially non-conductive to heat, substantially unignitable and yet strong and durable, for instance bakelite, to which tube the hot air point is preferably slidably and frictionally connected to overcome the use of screw threads.

Additional objects and advantages will become apparent from a consideration of the description following taken in connection with accompanying drawings illustrating one practical embodiment.

In said drawings:—

Figure 1 is a side elevation of the improvements;

Figure 2 is a side elevation taken at a right angle to Figure 1, and

Figure 3 is a detail longitudinal section on line 3—3 of Figure 1.

Throughout the drawings like reference characters designate like or similar parts.

As shown in the drawings, a tube 4 and a hot air point 5 form the outlet means which lead from a hot air dental syringe and which parts in use are necessarily insertible into the mouth of the patient.

Said hot air point or nozzle 5 is of any desired construction having a passageway therethrough for hot air and with its lower end flared outwardly at 6 to provide a substantially conical inner wall at 7. The nozzle proper preferably extends at a right

angle to the end 6 as usual. This hot air point or nozzle may be made of any suitable material, preferably metal.

Tube 4 is made of a desired material which is substantially a non-conductor to heat, substantially unignitable, and yet strong and durable. It is preferably made from bakelite, but of course other materials possessing the advantages may be substituted. This tube of course has a passageway for hot air communicating with the passageway of the hot air point and at its lower end has an attaching nipple or other means as at 8 for connection to the syringe proper or a tube or conduit extending therefrom. The opposite end of the tube 4 is reduced to provide a shoulder 9 and a conical projection 10 rising therefrom. The conical projection 10 engages the conical wall 7 friction-tight in order to attach the tube and the hot air point 5. The lower end of the flared portion 6 is engageable with the shoulder 9 as will be understood. Due to the frictional joint, the tube 4 and hot air point may be attached and detached simply by sliding movement, the hot air point may be disposed at any angle relative to the axis of the tube 4, and the use of screw threads to connect the parts is avoided.

Due to my improved construction, it will be realized that the tube 4 when inserted in the mouth of the patient, will not burn the mouth if it should contact therewith, as accidentally occurs quite often in actual practice.

It is to be understood that I have shown but a single embodiment of the invention and that changes therein may be made within the spirit and scope of the invention.

I claim as my invention:—

An outlet means for dental hot air syringes comprising a tube a relatively small hot air point mounted on said tube and having a hollow substantially conical portion, the longitudinal axis of said hot air point being perpendicular to the longitudinal axis of the tube, said tube being of substantially non-heat-conducting material and adapted for insertion into the patient's mouth, said tube having a nipple at one end integral with it for connection with a means of hot air supply, said point having an el-

bow integral therewith and extending from the base of said point and of less diameter than said base and exteriorly and detachably connected to the other end of the tube
5 on a plane intersecting said base, whereby the tube only may contact with the mouth through movement of the patient, the outer surface of said nozzle and said tube being flush at their joints, and the tube being

tapered with said joint forming the frus- 10
tum.

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

WILLIAM J. LAUER.

Witnesses:

J. E. KUROWSKI.

D. E. LAURIN.