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N. C. GUNTER

1,698,331

SALIVA EJECTOR

Filed July 15, 1925

Fig. 1.

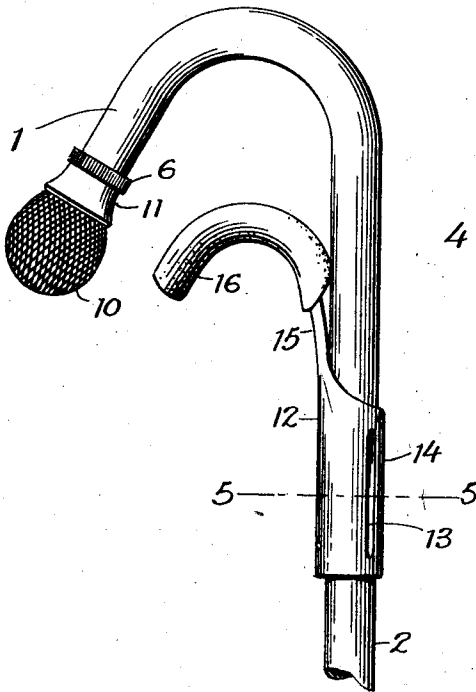


Fig. 2.

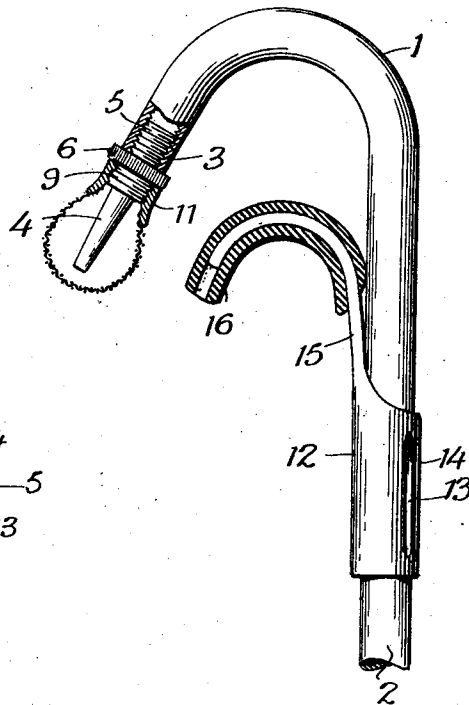


Fig. 3.

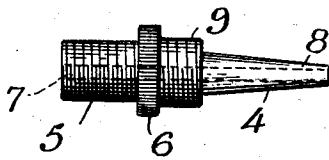


Fig. 4.

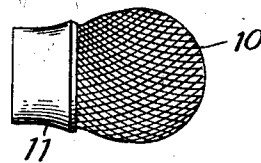


Fig. 6.

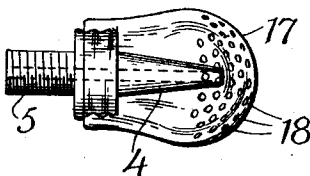
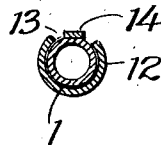


Fig. 5.



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UNITED STATES PATENT OFFICE.

NEWTON C. GUNTER, OF PUEBLO, COLORADO.

SALIVA EJECTOR.

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My invention relates to saliva ejectors and particularly to an ejector of the suction or siphon type intended for use by dentists and others to prevent the accumulation of saliva in the oral cavity.

An object of this invention is to provide an ejector which is adjustable to suit different conditions of use and to accommodate the device for different persons upon whom it is used.

A further object resides in providing a cushioned support so that the ejector structure can be supported and carried entirely by the lower teeth of the person to whose mouth it is fitted.

Another object is to provide a guard at the intake end of the ejector which will strain the fluids to exclude particles which might cause clogging and which at the same time permits a close adjustment of the intake nozzle without danger of sucking up or otherwise injuring or disturbing the tissues in the mouth.

Still another object lies in providing a structure which is of such construction that the several parts thereof can be readily disassembled for cleaning and sterilization, the construction being such that my improved ejector can be made up entirely of materials which will resist the accumulation of germs and which can be readily cleaned and sterilized.

With the above and other objects in view, which will be apparent to those skilled in the art, my invention includes certain novel features of construction and combinations of parts which will be set forth in connection with the drawing.

In the drawing:

Figure 1 is a view in side elevation of an ejector constructed in accordance with my invention.

Fig. 2 is a view similar to Figure 1 with parts in section.

Fig. 3 is a detail view of the suction point.

Fig. 4 is a view in elevation of the guard.

Fig. 5 is a transverse sectional view on the line 5—5 of Figure 1.

Fig. 6 is a view similar to Fig. 4 showing a modified form of guard.

I am aware that saliva ejectors are now well known and are commonly used by dentists and others operating or working in the oral cavity, and my improved saliva ejector is intended and adapted for connection and

use with the usual suction or siphon tube as now commonly employed.

A crooked or curved tube 1 is adapted to have the suction tube connected in any suitable manner on the end 2 thereof and is provided with a socket 3 at its remaining end to receive the suction point 4. In the present instance I have shown this end 3 as being internally screw threaded and the suction point 4 is provided with an externally threaded portion 5 to be turned into the screw threaded end 3, a shoulder 6 on the suction point being knurled or milled to permit ready turning of the suction point into and out of the threaded end 3. This suction point has a relatively small saliva suction opening 7 formed from end to end there-through, and has a nozzle end 8 projecting beyond the knurled shoulder 6, an externally screw threaded portion 9 being provided between the nozzle 8 and the shoulder 6.

A guard 10 is provided with an internally threaded sleeve 11 adapted to be screwed upon the threaded portion 9 of the suction point, and this guard is, in the preferred embodiment, shown as made up of a piece of wire mesh of smaller gauge than the hole or passage 7 through the suction point, the wire mesh being shaped up to present substantially a ball form around the nozzle 8 with the wire mesh closely adjacent the intake end of the nozzle.

A sleeve 12 is slightly fitted over the end 2 of tube 1 to be adjustable along the straight extent thereof, this sleeve having the elongated slits 13 formed in parallel spaced relation through one side thereof to provide a resilient strip 14 which is bent in slightly to frictionally engage with the tube 1 and hold the sleeve in adjusted positions. At its upper end the sleeve 12 has a hook 15 bent over to fit within and substantially conform to the curve of the tube 1, and a protective covering 16, which can be a tube of soft rubber or of other suitable material, is fitted upon this hook 15 and extends beyond the end thereof.

In Fig. 6 I have shown a modified construction of the guard, and in this instance the guard is made up as a hollow ball 17 of glass, metal, or other suitable material, having a plurality of perforations 18 there-through, the perforations being preferably of less diameter than the opening or passage 7 through the suction nozzle.

Where the tube 1 and the guard 17 are of glass or similar material, it may be found desirable to also construct the suction point of glass, and with this construction it will probably be found necessary to taper the suction point adjacent its ends and correspondingly taper the end of tube 1 and the opening of guard 17 adapted to receive and be fitted upon the suction point; however, as such substitution of frictional fitting for screw threaded connection is old and well known I have not here illustrated this adaptation.

In the use of my improved saliva ejector the tube 1 has its end 2 connected with the suction hose in the usual manner and the sleeve 12 is adjusted along the tube to such a relation that the hook 15 is positioned within the curve of the suction tube 1 to engage over the lower teeth and support the entire weight of the instrument. This adjustment is preferably so made that the guard 10 will bear slightly upon the tissue of the mouth, this pressure causing the tissue to cup down to form a well in which the intake end of the nozzle 8 of suction point 4 projects. The guard 10 prevents stoppage of the passage 7 by particles being drawn into the suction point, and at the same time guards against the mouth tissues being sucked up against this point.

From the foregoing it will be seen that I have provided a saliva ejector which is of simple and inexpensive construction, thus being readily disassembled for cleaning and

sterilizing and one which will serve efficiently to take up and eject saliva without permitting accumulation of the same.

While I have herein shown and described only certain specific constructions and embodiments of my invention and have suggested only certain possible modifications of the construction and assembly and certain possible substitutions of materials, it will be appreciated that changes and variations can be made in the form, construction, assembly, and the materials, without departing from the spirit and scope of my invention.

I claim:

A saliva ejector comprising a suction tube to be connected at one end with a suction hose and having its remaining end bent over to be fitted within a mouth, a suction point carried by the bent end of the suction tube and having a suction passage therethrough, a guard inclosing the suction point and having openings therethrough relatively smaller than the suction passage, a supporting hook adjustably mounted and frictionally held upon the hose connection end of the suction tube, said supporting hook being shaped to conform substantially with the bend of the suction tube and to be fitted upon the lower teeth to position the suction point, and a cushion covering on the tooth-engaging portion of the supporting hook.

In testimony whereof I hereunto affix my signature.

NEWTON C. GUNTER