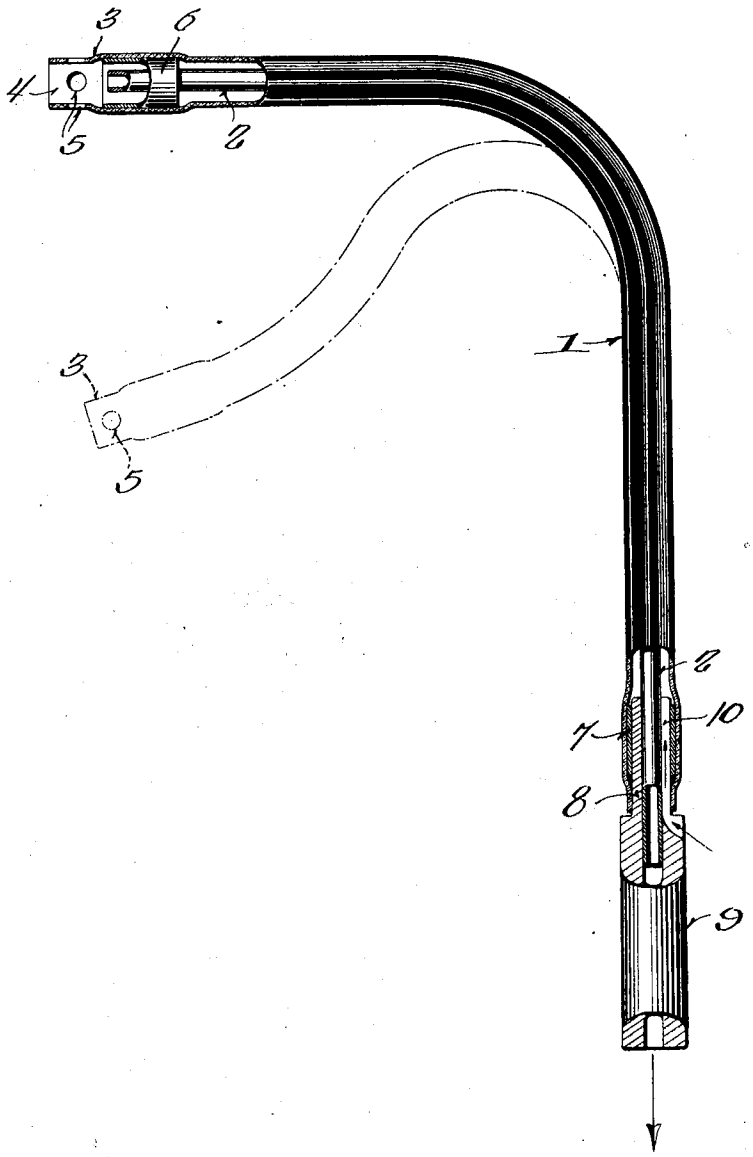
C. H. SEEGER.

SALIVA EJECTOR.

APPLICATION FILED JAN. 12, 1920.

1,388,312. Patented Aug. 23, 1921.



Witness:

Inventor:
Carl H. Seeger
By Young & Young
Attorneys

UNITED STATES PATENT OFFICE.

CARL H. SEEGER, OF MANITOWOC, WISCONSIN.

SALIVA-EJECTOR.

1,388,312. Specification of Letters Patent. Patented Aug. 23, 1921.

Application filed January 12, 1920. Serial No. 350,850.

To all whom it may concern:

Be it known that I, CARL H. SEEGER, a citizen of the United States, and resident of Manitowoc, in the county of Manitowoc and State of Wisconsin, have invented certain new and useful Improvements in Saliva-Ejectors; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to new and useful improvements in dental appliances, more particularly in saliva ejectors.

Many devices which are at present in use are rigid so that it is impossible to enable them to conform to the shape and movements of a patient's mouth. Furthermore their rigidity tends to tire the muscles of the mouth, and owing to the inflexible nature of the intake end of the device, the flesh of the mouth is frequently sucked into the intake apertures, thus clogging the same and preventing thorough operation. Furthermore when this condition arises the flesh of the patient's mouth is usually affected so as to cause bleeding. Such ejectors because of their rigid nature are not adapted to operate at different points in the patient's mouh so that the effective use of such devices is limited.

The main purpose of the present invention is to overcome all of these defects, and this is primarily carried out by providing a flexible tube having sufficient rigidity to permit its being retained in various adjusted shapes. In this manner the softness of the tube will eliminate possibilities of the muscles of a patient's mouth becoming cramped or tired, while its stiffness permits it to be shaped for use in various parts of the mouth. A soft intake end obviates to a considerable extent the closing of the intake apertures as above mentioned.

With these general objects in view, the invention consists in the novel features of construction, combination and arrangement of parts which will be hereinafter more particularly described and claimed and shown in the drawing, wherein:

The figure represents a side elevational view, partly in section, of the preferred embodiment of my saliva ejector, the figure also showing in dot-and-dash lines the manner in which the device may be in different shapes.

In the drawing only that part of the ejector which is adapted to be disposed in or adjacent to a person's mouth is illustrated. It is to be understood, however, that this device may be connected with any suitable means for producing suction. This means may be that normally employed in the operation of ejectors of this type, or of any other desired nature.

The ejector comprises particularly an outer flexible tube 1 of rubber or the like, and an inner metallic tube 2 of smaller diameter. The soft flexible outer tube 1 forms a sheathing for the more rigid metallic inner tube 2, but the latter is of such material that it is readily bendable so as to shape the ejector as desired and retain it in such shape. The mouth end of the metallic tube 2 terminates inwardly of the similar end of the outer tube 1 to form a mouth piece 3, the end of which is open as at 4 and is provided with an annular series of intake apertures 5. Also spaced inwardly of the mouth-piece 3 and surrounding the adjacent end of the tube 2 is a reinforcing sleeve 6. This sleeve preferably consists of a metallic member of a diameter slightly larger than that of the tube 1 and slid thereinto as shown. It will not only prolong the period of usefulness of the mouth-piece 3, but will also prevent the collapsing thereof about the adjacent end of the metallic tube 2.

The opposite end of the outer tube 1 is provided with a substantially similar reinforced sleeve 7, this sleeve, however, forming an arrangement whereby said outer tube 1 may be more easily slipped on or removed from the shouldered or reduced end 8 of a coupling member 9. The main portion of the coupling is adapted to have a suction hose slipped thereover as is customary in devices of this character.

The reduced end 8 of the coupling also acts as a means for securing the outlet end of the tube 2 to the coupling, this being carried out by sliding the tube 2 into the bore of the reduced end 8. The outer tube 1, or rather the space between it and the inner tube 2 is vented as at 10 by forming a groove through the reduced end 8 and the adjacent part of the coupling 9.

In the use of the invention, assuming that the coupling 9 is connected with suitable suction means, the tubes 1 and 2 are bent into the desired shape to provide the required type of the device, the parts remain-

ing in this position in view of the necessary rigidity in the tube 2, whereupon the mouthpiece 3 is inserted within the patient's mouth to remove excess saliva therefrom. If through any cause the open end of the mouth-piece 3 and the inlet apertures 5 become closed or clogged, excessive suction on the flesh of the person's mouth will not result owing to the vent 10 whereby outside air may be drawn into the tube 1 around the tube 2 and out of the same through said tube 2. The possibility of excessive suction within the tube 2 is thus readily obviated. The outer tube 1 being readily separable from the inner tube 2, the ejector is very sanitary as the parts are readily disconnected for cleaning purposes.

I claim:

1. An ejector of the class described comprising a suction member having an inner tube of bendable metal, and an outer sheathing of soft yielding material, the outer sheathing being extended at one end beyond the end of the inner tube to form a mouthpiece, an air inlet opening in said inner tube, and means for connecting said inner tube with a suction producing device.

2. An ejector of the class described comprising a suction member having an inner tube of pliable material, and an outer tube disposed around the inner tube and spaced therefrom, the outer tube being extended at one end beyond the end of the inner tube to form a mouthpiece, an air inlet opening in said outer tube, and means for connecting said inner tube with a suction producing device.

3. An ejector of the class described comprising a suction member having an inner tube of pliable material, and an outer tube of yielding material disposed around the inner tube and spaced therefrom, the outer tube being extended at one end beyond the end of the inner tube to form a mouthpiece, and means for connecting said inner tube with a suction producing device.

4. An ejector of the class described comprising a suction member including an inner metallic tube, and an outer tube of non-metallic material disposed around the inner tube, the outer tube being extended at one end beyond the end of the inner tube to form a mouthpiece, and means for connecting said inner tube with a suction producing device.

5. An ejector of the class described comprising a suction member including an inner metallic tube, and an outer tube of non-metallic material disposed around the inner tube, the outer tube being extended at one end beyond the end of the inner tube to form a mouthpiece, and means for connecting said inner tube with a suction producing device, said outer non-metallic tube being slidable from the inner metallic tube to permit cleaning of the parts.

6. An ejector of the class described comprising a suction member including an inner metallic tube, a coupling member fixed to one end of the metallic tube, and an outer tube disposed around the inner tube and having one end connected with said coupling member, the other end being extended beyond the adjacent end of the inner tube to form a mouth-piece, said coupling member being adapted to have a suction means connected therewith to create a suction in the inner and outer tubes, the latter having an air inlet vent.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin.

CARL H. SEEGER.