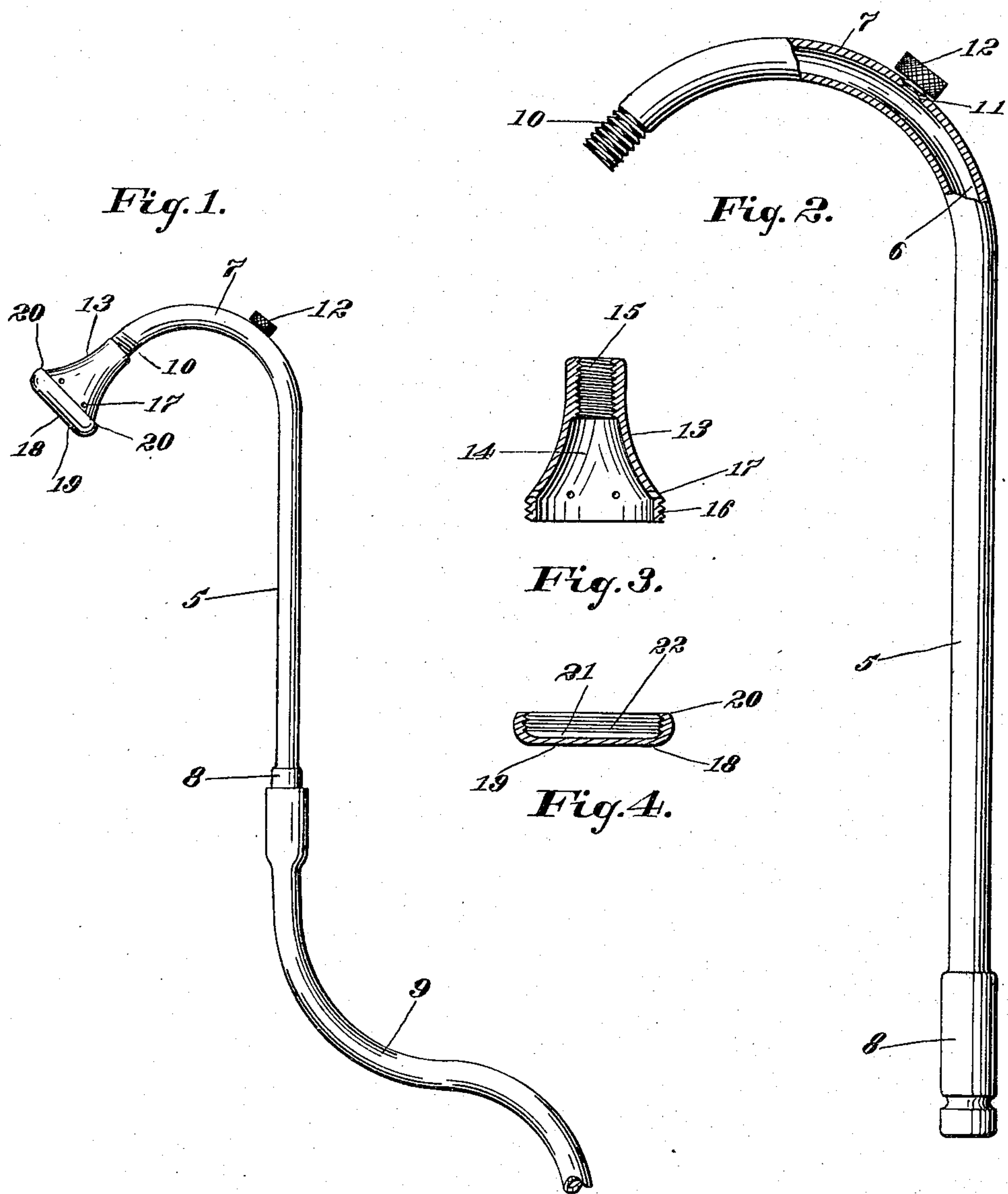


F. GROSHANS.
DENTAL SALIVA EJECTOR.
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1,167,062.

Patented Jan. 4, 1916.



Witnesses
Porter H. Cault.
Bertha K. Walter.

Inventor
Ferdinand Groshans
By
Mann & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

FERDINAND GROSHANS, OF BALTIMORE, MARYLAND.

DENTAL SALIVA-EJECTOR.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FERDINAND GROSHANS, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Dental Saliva-Ejectors, of which the following is a specification.

This invention relates to improvements in dental saliva ejectors and has for its object to provide an improved construction of saliva ejector that will overcome the serious objections to ejectors of this kind now in use.

Some of the objections to the saliva ejectors now in use by the dental profession are that the perforations, through which the saliva must pass, become cut off by the tissues in the mouth being drawn over the perforations; that particles of matter are drawn through the perforations into the ejector but frequently do not pass out from the latter and great difficulty is experienced in removing such particles, and that the difficulties experienced in sterilizing the ejector-passages and chambers is so great, and the results so uncertain, that many patients and dentists refuse to use saliva ejectors.

The objects, therefore, of the present invention are to provide an improved construction and arrangement of parts of a dental ejector which will not embed itself in the soft tissues to such extent as to close the perforations; whose interior passages may be readily examined and particles of matter removed therefrom and whose parts may be separated to expose the interior surfaces to the direct action of sterilizing agents so that a thorough sterilization may be effected.

With these objects in view, the invention is illustrated in the accompanying drawing, in which,—

Figure 1, shows the improved ejector in side elevation. Fig. 2, illustrates the ejector tube on an enlarged scale with the mouth bell removed therefrom,—a portion of the tube being in section to show the location of a cleaning perforation and the means for closing the same. Fig. 3, shows an enlarged sectional detail of the detached body of the mouth bell, and Fig. 4, illustrates an enlarged cross-sectional detail through the detached button head of the mouth bell.

In practice the parts of the ejector may be constructed, of metal, glass or a rubber composition, and of course it is to be used

in connection with any preferred form of suction device whereby a suction is maintained through the ejector to draw the saliva from the mouth.

My improved ejector comprises a tube 5, having a passage 6, therein and also provided with a bend 7, at one end thereof. The straight end 8, of the tube has a form that will permit the ready connection therewith of a flexible rubber hose or tube 9. The end of the bend 7, is provided with exterior screw threads 10, while the bend itself has a threaded opening 11, that extends from the exterior into and communicates with the passage 6. A threaded plug or screw 12, serves to close the said opening and upon removal will permit access to the passage for the purpose of enabling the latter to be opened in case of stoppage.

A bell-shaped or flaring body 13, is connected to and depends from the end of the tube bend. This flaring bell body has an interior chamber 14, which is of a larger diameter at the lower end than at its upper end, and at said smaller upper end said body is provided with interior screw threads 15, which engage the exterior threads 10, on the bent end of the tube. At the larger lower end, the bell body is provided with exterior screw threads 16, and immediately above the said exterior threads, said larger body end also has a plurality of perforations 17, that extend therethrough from the exterior and open into the larger end of the body chamber 14.

A button-shaped head 18, is attached to the larger lower end of the bell body and said head has a broad outer lower face 19, and also has an upwardly curved or rounded annular guard rim 20. This head is also provided with a cavity 21, in its upper side and the wall of this cavity, which also forms said rounded annular rim, is provided with interior screw threads 22, so as to engage the exterior threads on the larger lower end of the bell body. When the button head 18, is attached to the larger end of the bell body its rounded annular rim forms an annular guard below the perforations 17, in the bell body and at the same time the head forms a broad bearing surface to seat on the soft tissues in the mouth and therefore distributes the pressure on the tissues over an extended surface. By providing the rounded annular guard rim 20, beneath the perforations 17, the soft

tissues in the mouth are prevented from closing around said perforations and thereby cutting off the suction. By forming the ejector in sections, the tube 5; flaring body 13 and socketed or recessed head 18, may all be separated and thoroughly cleaned and sterilized as the sterilizing and cleaning agents may have ready access to all interior and exterior surfaces.

10 Having thus described my invention what I claim is,—

1. In a saliva ejector for the mouth the combination with a tube having a passage therethrough said tube having a bend therein of a hollow body detachably connected to the bent end of the tube said body flaring in a direction away from its attaching end and provided with circumferential perforations around its larger end and a head detachably connected to the larger flared end of the hollow body beneath the perforations.

2. In a saliva ejector for the mouth, the combination with a tube having a bend at

one end and a passage therethrough, of a hollow bell-shaped body having its wall flaring outwardly and at the smaller end said body having interior screw-threads to detachably connect with the bent-end of the tube and at the larger end said body having exterior screw-threads and perforations which latter are immediately above the exterior screw-threads, and a head having a cavity in its upper side with an upwardly-curved annular guard rim that terminates just beneath the perforations in the body said guard rim of the head being provided with interior screw-threads to detachably engage the exterior threads on the larger end of the body.

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

FERDINAND GROSHANS.

Witnesses:

CHARLES B. MANN, Jr.,
BERTHA K. WALTERS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."