TOOTH CLEANING DEVICE.

APPLICATION FILED NOV. 4, 1907.

918,281.

Patented Apr. 13, 1909.

Fig. 1.

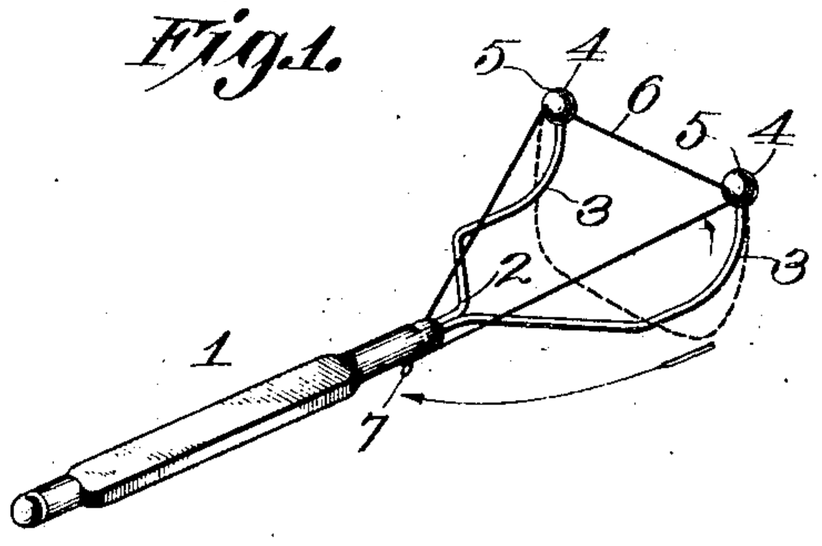


Fig. 2

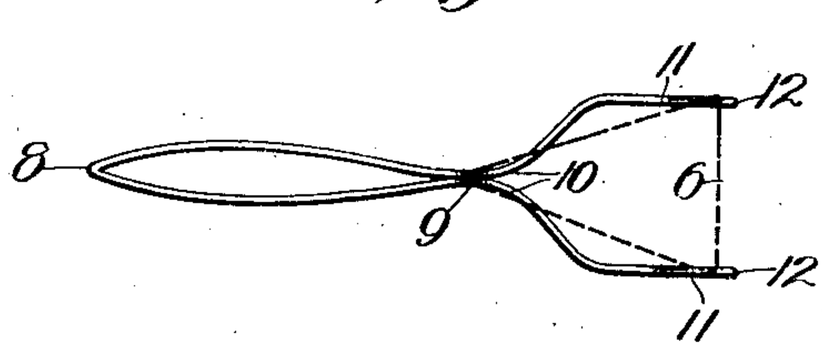
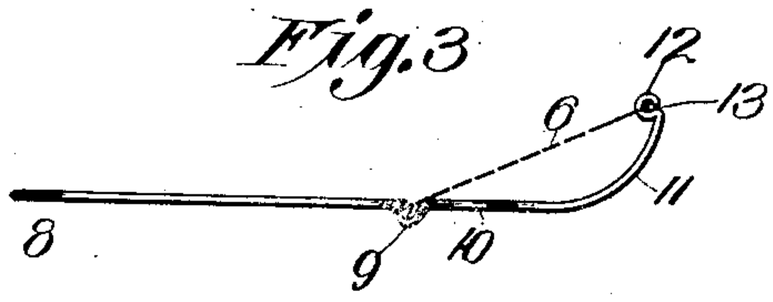


Fig. 3



Witnesses
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UNITED STATES PATENT OFFICE.

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TOOTH-CLEANING DEVICE.

No. 918,281. Specification of Letters Patent. Patented April 13, 1909.

Application filed November 4, 1907. Serial No. 400,575.

To all whom it may concern:

Be it known that I, EDWARD C. CHAMBERS, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Tooth-Cleaning Devices, of which the following is a specification.

This invention relates to tooth cleaning devices and has for its object to produce a simple and effective device by which access may be easily had to the spaces between teeth accessible or inaccessible to any ordinary tooth pick.

A further object is to produce a tooth cleaning device incapable of injuring the gums or tongue of the patient, and which unlike an ordinary tooth pick, cannot break and leave the detached part wedged between the teeth, an annoying and unpleasant experience which most people have suffered.

A further object is to produce a tooth cleaning device which adapts itself to curved and angular as well as straight surfaces, and which can be conveniently carried in one's pocket.

To these ends the invention consists in certain novel and peculiar features of construction and organization as hereinafter described and claimed; and in order that it may be fully understood, reference is to be had to the accompanying drawing, in which—

Figure 1, is a perspective view of a tooth cleaning device embodying my invention. Fig. 2, is an elevation of a modified form of the same. Fig. 3, is an edge view of the type of construction illustrated in Fig. 2.

In the said drawing, 1 indicates a suitable handle and 2 a preferably spring wire fork projecting from one end of the handle and having its tines terminating in ends 3 which are bent or curved correspondingly, the free ends of said tines being formed or equipped with preferably spherical heads 4 provided with kerfs 5, it being noted that when the device is held in the position shown in Fig. 1, the heads 4 occupy a higher plane than the handle.

6 indicates a connection between the heads 4 of such character as to be capable of being bent or stretched toward or from the handle or downward or in fact in any direction except that which would tend to force it out of the kerfs 5 and thus effect its release from the heads 4.

In practice the flexible or elastic bridge piece 6 which is the element which comes in contact with the teeth for the purpose of cleaning them, forms a part of an elastic band, the portion of the band outwardly of the heads 4 being stretched from substantially the position shown in dotted lines, Fig. 1, in the direction indicated by the arrow of said figure, this stretching causing the band to assume isosceles triangle form with the apex of the triangle engaging the depending stud 7 of the handle. As thus arranged the band is under tension and will retain its position for an indefinite period. In actual use the forked end of the device is inserted in the patient's mouth with the portions 3 of the tines projecting upwardly or downwardly accordingly as upper or lower teeth are to be operated upon. The device is then manipulated to dispose the band between the two teeth selected and is sawed back and forth longitudinally of portion 6 which thus works its way down between such teeth to clean the space between them. To cause the part 6 to operate on the rounded surface of the teeth the device is pushed farther into the mouth or moved in the opposite direction as the case may be in order to cause the said flexible portion 6 to adapt itself to such curve, being sawed back and forth as before explained, at the same time. It will thus be seen that with a flexible cleaner bridging the space between a pair of tines or arms, access can be had to almost any tooth or tooth space, and should it come in contact with the tongue or gums of the patient, no injury will follow. It will further be noted that it is impossible for such a strip to become wedged so tightly between two teeth that it would be difficult to withdraw it, because in the event of it entering a space sufficiently contracted or narrow it would break as at such time it would be stretched to a breaking point.

In Figs. 2 and 3 I show the frame of the device made wholly from a single piece of wire bent at 8 to form the handle, at 9 to form the stud for the elastic band, at 10 to form the fork, at 11 the bent portions of the tines of the fork and at 12 to form eyes corresponding to heads 4, to receive the band. This type of construction is in all essential particulars identical with that first described and in practice it is handled or manipulated in the same manner.

From the above description it will be apparent that I have produced a tooth clean-

ing device which embodies the features of advantage enumerated as desirable, and which therefore is sufficiently small to be conveniently carried in one's pocket, which is of exceedingly simple and cheap construction and is very durable except as regards the elastic bands or their equivalents; it being understood that in this connection the essential part of the connection between the heads or eyes is that which connects them and that consequently any other means of attaching the bridging piece 6 to the heads or eyes will not be a departure from the principle of construction involved.

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

A tooth cleaning device comprising a fork, consisting of a handle and a pair of tines consisting of rear oblique portions occupying the same plane as the handle for their full length and front portions extending parallel with each other and the handle from the front ends of the oblique portions and terminating in parallel curved portions equipped at their free ends with slitted heads, a stud projecting from the front end of the handle in the opposite direction to that in which the curved portion projects from the parallel portions of the tines, and an endless flexible connection extending through and bridging the space between the slitted heads and extending from said heads to and engaging said stud.

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

EDWARD C. CHAMBERS.

Witnesses:

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