

(No Model.)

E. SCHULZE.
TOOTH CLEANER.

No. 463,309.

Patented Nov. 17, 1891.

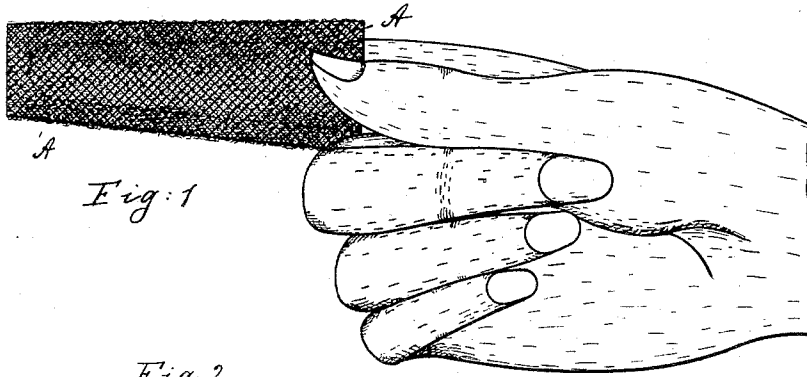


Fig: 1

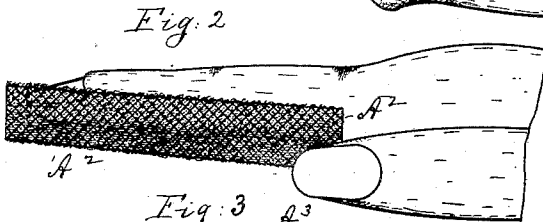


Fig: 2

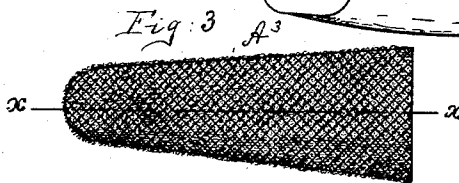


Fig: 3

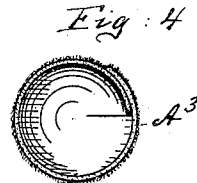


Fig: 4

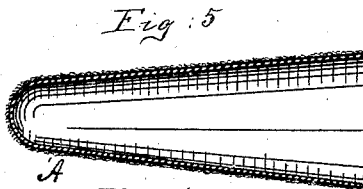


Fig: 5

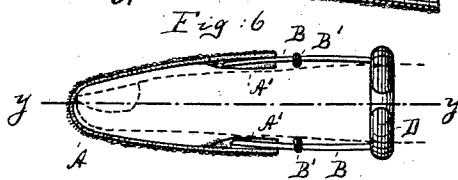


Fig: 6

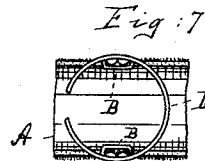


Fig: 7

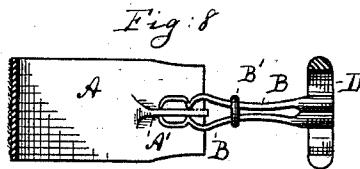


Fig: 8

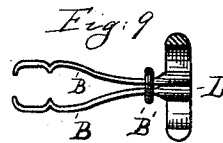


Fig: 9

Witnesses:

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UNITED STATES PATENT OFFICE.

EDWARD SCHULZE, OF PLAUE, SAXONY, GERMANY.

TOOTH-CLEANER.

SPECIFICATION forming part of Letters Patent No. 463,309, dated November 17, 1891.

Application filed February 4, 1891. Serial No. 380,212. (No model.)

To all whom it may concern:

Be it known that I, EDWARD SCHULZE, of Plauen, in the Kingdom of Saxony, Germany, have invented a new and useful Improvement in Tooth-Cleaners, of which the following is a specification.

This invention relates to a device for cleaning the teeth, and designed to replace the tooth-brushes now generally in use.

The improved cleaner is intended to overcome the objectionable features connected with the use of the brush—viz., the frequent injury to the teeth and gum.

The invention consists in the various features of improvement more fully pointed out in the claim.

In the accompanying drawings, Figure 1 is an elevation of my improved tooth-cleaner, showing it in use. Fig. 2 is an elevation of a modification; Fig. 3, an elevation of a further modification; Fig. 4, an end view of Fig. 3; Fig. 5, a section on line *x x*, Fig. 3; Fig. 6, a section through the cleaner, showing it provided with the clamping-ring D; Fig. 7, an end view thereof; Fig. 8, a section on line *y y*, Fig. 7; and Fig. 9, a longitudinal central section of the clamping-ring.

My improved tooth-cleaner is composed of a piece of textile fabric A, that is impregnated with a tooth-powder. The piece of text-

ile fabric may be wound completely around the finger, as in Fig. 1, or it may be bent into semi-tubular form, as at a^2 in Fig. 2, or it may be made of conical form with overlapping edges, as at a^3 in Fig. 3. The cleaner may also be slipped over a suitable stick or holder, and when introduced into the mouth will serve to thoroughly clean the teeth and flesh without any injurious effects.

To attach the fabric A to the finger, I use a clamp consisting of an open ring D, provided with two pair of spring-jaws B, embraced by suitable slides B'. The jaws are passed into the tubular cleaner A, and each pair of jaws is made to engage an inwardly-extending flap A' of the same.

What I claim is—

The combination of a textile tooth-cleaner having inwardly-projecting flaps A' with a ring D, having spring-jaws B, adapted to engage the flaps, and with a slide B' encircling the jaws, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD SCHULZE.

Witnesses:

RICH. SCHMERLER,
FRANZ SCHMERLER.