No. 805,733. PATENTED NOV. 28. 1905.

E. W. KEY.

TOOTH BRUSH.

APPLICATION FILED MAR. 21, 1905.

FIG_1_

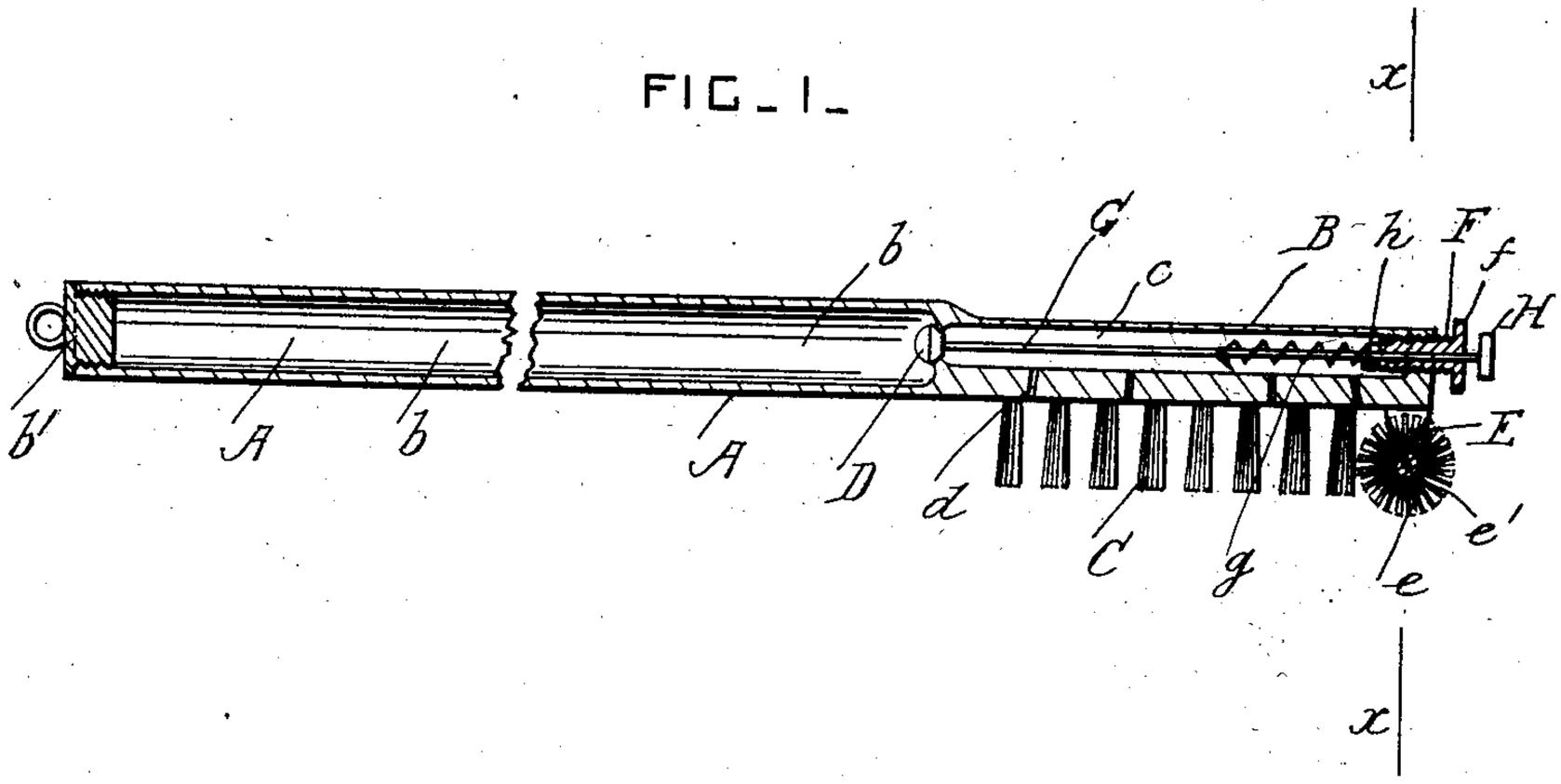


FIG_2_

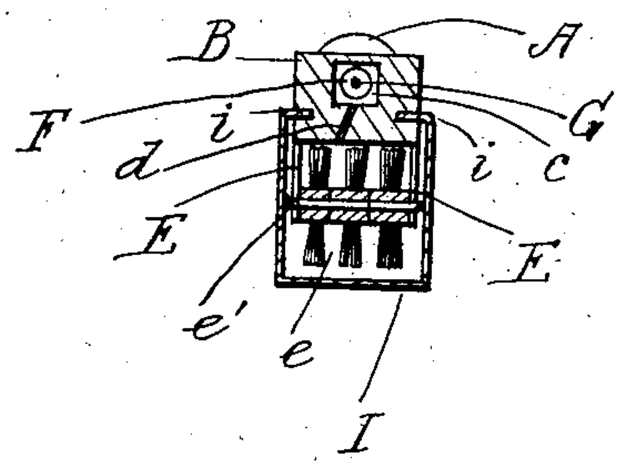
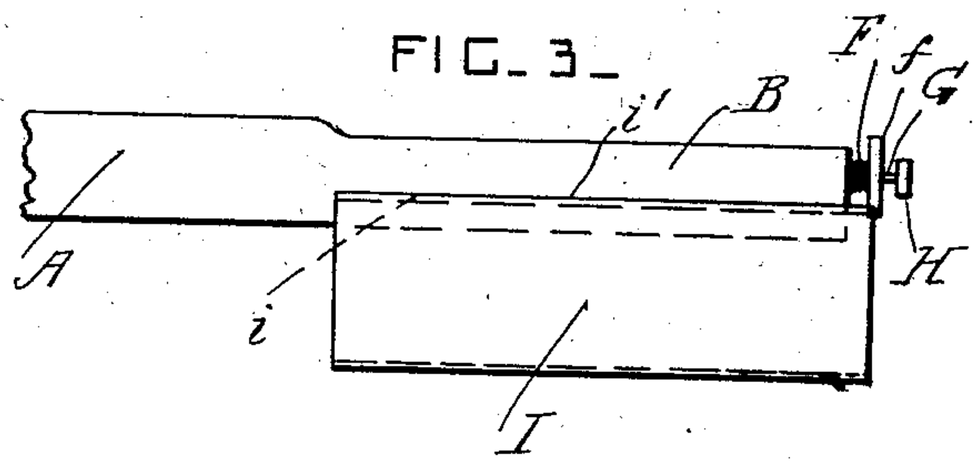


FIG_3_



WITNESSES:

L. B. Middleton

E. N. Bond

INVENTOR

Eduardo W. Key.

BY

Herbert W. Jenner.

Attorney

UNITED STATES PATENT OFFICE.

EDUARDO W. KEY, OF SOUTHWEST CITY, MISSOURI.

TOOTH-BRUSH.

No. 805,733. Specification of Letters Patent. Patented Nov. 28, 1905.

Application filed March 21, 1905. Serial No. 251,269.

To all whom it may concern:

Be it known that I, EDUARDO W. KEY, a citizen of the United States, residing at Southwest City, in the county of McDonald and State of Missouri, have invented certain new and useful Improvements in Tooth-Brushes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to tooth-brushes; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a longitudinal section through the tooth-brush. Fig. 2 is a cross-section taken on the line *x x* in Fig. 1, showing also the shield in position. Fig. 3 is a side view of the shield and part of the brush.

A is the handle of the brush, which is provided with a chamber *b* for holding tooth-wash liquid. At its rear end this chamber is provided with any approved stopper *b'* for closing it.

B is the back of the brush at the front end of the handle, and C represents the bristles or other equivalent flexible cleaning devices which project from the back B. The back B has a passage *c*, which communicates with the chamber *b*, and D is a valve between the said chamber and passage. Small holes *d* are provided between the bristles for letting the liquid pass from the passage *c* to the teeth.

E represents two lugs at the front end of the brush, and *e* is a rotary brush arranged between the lugs E and journaled on a pin *e'*.

F is a plug which is screwed into the front end of the passage *c* and provided with a head *f*.

G is the valve-stem, which is secured to the valve D and which slides in a hole in the plug F. A spring *g* is secured to the plug and to the valve-stem and normally holds the valve closed, so that the liquid is retained in the chamber *b*.

H is a button on the end of the valve-stem. When this button is pressed, the valve is opened for the passage of liquid. A projection *h* is formed on the valve-stem G inside the passage, and the valve may be held open, if desired, during the operation of using the tooth-brush by screwing the plug inward against the said projection. When the tooth-brush is not in use, the accidental leakage of liquid past the valve may be prevented by screwing the plug outward against the button, so that the valve is pressed hard against its seat and cannot be opened.

I is a trough-shaped shield for the bristles, provided with inwardly-projecting flanges *i* at its upper edges, which engage with longitudinal grooves *i'* in the sides of the brush-back. When the brush is not in use, this shield is slid over the bristles to protect them from injury.

The parts of the brush may be assembled by first connecting the parts G, *g*, F, and H, as shown, and placing them in position in the head of the brush and then screwing the valve D onto the end of the stem G with long pliers inserted through the handle A.

What I claim is—

1. In a tooth-brush, the combination, with a brush-back provided with bristles on its face and a passage having outlet-holes between the bristles, of lugs projecting from the front end portion of the back, a rotary brush journaled between the said lugs and projecting below the points of the said bristles, a handle provided with a chamber for liquid, a valve between the said chamber and passage, and means for operating the said valve.

2. In a tooth-brush, the combination, with a brush-back provided with bristles and a passage having outlet-holes between the bristles, of a handle provided with a chamber for liquid, a valve between the said chamber and passage, a plug screwed into the front end of the said passage, a valve-stem which slides in the said plug and which is provided with a projection inside the said passage for the said plug to bear against to open the valve, a button on the free end of the said stem, and a spring which normally closes the valve, substantially as set forth.

In testimony whereof I have affixed my signature in the presence of two witnesses.

EDUARDO W. KEY.

Witnesses:

J. C. AULT,

FRED S. COOK.