(No Model.)

# N. B. DE GALANTHA.

## ROTARY TOOTH BRUSH.

No. 454,644. Patented June 23, 1891.

*Fig. 4.*


*Fig. 1.*

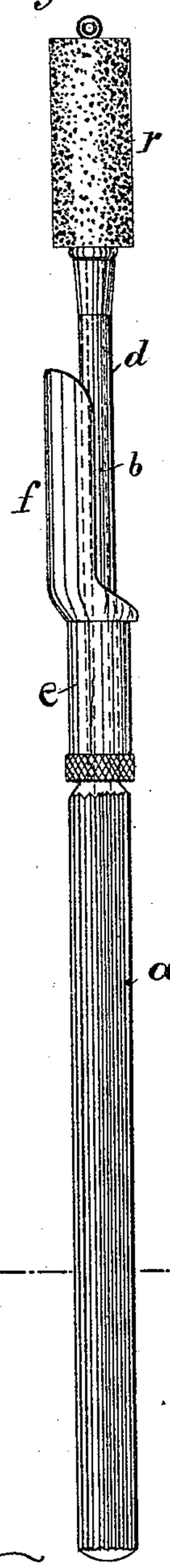


*Fig. 3.*

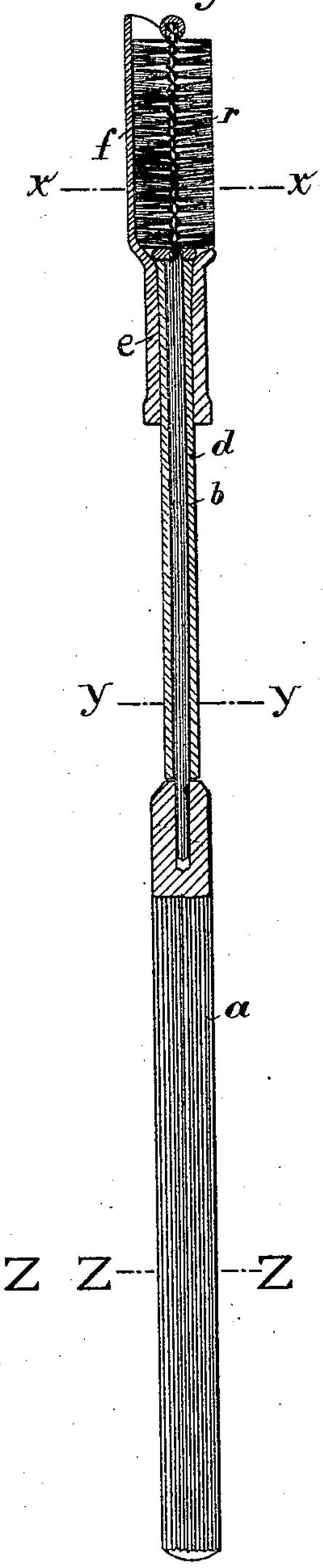


*Fig. 2.*

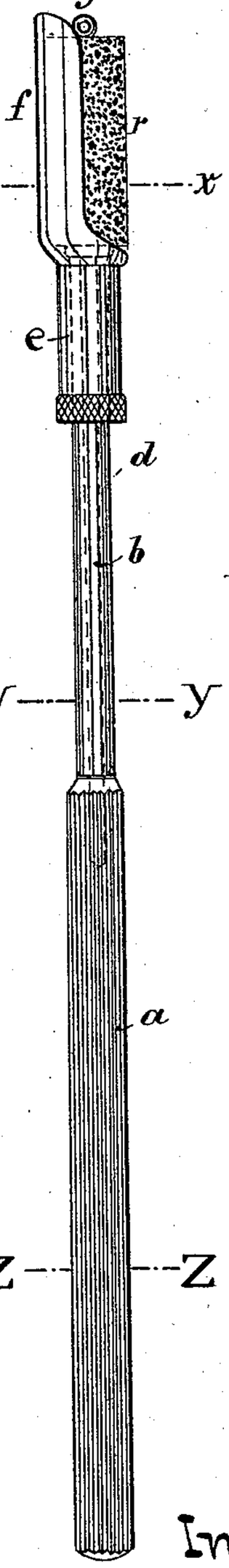


*Fig. 5.*


*Fig 6*

Witnesses:
A. Faber du Faur
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by A. Faber du Faur
his Attorney.

# UNITED STATES PATENT OFFICE.

NICOLAUS BALOGH DE GALANTHA, OF MOSCOW, RUSSIA.

## ROTARY TOOTH-BRUSH.

SPECIFICATION forming part of Letters Patent No. 454,644, dated June 23, 1891.

Application filed November 28, 1890. Serial No. 372,903. (No model.)

*To all whom it may concern:*

Be it known that I, NICOLAUS BALOGH DE GALANTHA, a subject of the Emperor of Austria, King of Hungary, residing at Moscow, Russia, have invented certain new and useful Improvements in Rotating Tooth-Brushes, of which the following is a specification.

My invention has reference to improvements in rotary tooth-brushes; and it consists, essentially, in a tooth-brush embodying a handle to which is secured the brush-spindle, a sleeve mounted upon said spindle, and a guard for the brush, all of which is more fully pointed cut in the following specification and claims and illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of a tooth-brush embodying my invention, the guard being removed from the brush. Fig. 2 is a similar view showing the guard in juxtaposition over the brush. Fig. 3 is a longitudinal section. Fig. 4 is a cross-section in the plane *x x*, Figs. 2 and 3. Fig. 5 is a cross-section in the plane *y y*, Figs. 2 and 3. Fig. 6 is a cross-section in the plane *z z*, Figs. 1, 2, and 3.

Similar letters indicate corresponding parts.

In the drawings, the letter *a* designates the handle of the device made of any suitable material, such as hard rubber or ivory, the surface of which is preferbly milled or otherwise roughened, so as to obtain a good hold of the said handle for turning the same.

*b* is the brush-spindle, secured at one end to the handle *a* and carrying at its opposite end the cylindrical brush *r*.

*d* is a sleeve mounted upon the spindle *b* and extending between the brush and the upper end of the handle, within which sleeve said spindle can readily be turned or rotated by holding said sleeve with one hand and turning the handle *a* with the other, thereby imparting a rotary motion to the brush *r*. Upon the sleeve is mounted, preferably so as to be capable of a longitudinal movement upon the same, a hollow guard *f*, constructed to embrace approximately one-half of the cylindrical surface of the brush *r*, said guard terminating in a hub *e*, fitted loosely to the sleeve *d*. The guard *f* is maintained in its position about the brush by any suitable means—for instance, as shown in this example—by making the end of the sleeve *d* flaring or conical and boring out the hub *e* to correspond, whereby the guard is both wedged in position to cover the brush and secured to the sleeve. The guard, as before stated, being capable of a longitudinal motion on the sleeve *d*, it can be readily withdrawn from the brush to occupy the position shown in Fig. 1, when it is desired to apply tooth-powder to the brush or clean the same after use, or to use the brush in the manner of an ordinary brush. When in use, the guard is placed in the position shown in Fig. 2, and its function, as will be readily seen, is to prevent the gums and inner portions of the lips from being injured by the brush in its rotation, as well as to prevent the hair of the mustache or beard from becoming entangled in the brush.

The guard may be made of any material which will not affect the skin—such, for instance, as ivory, bone, or hard rubber.

It is evident that the guard can be secured when in its withdrawn position by similar means as those before described.

In using the brush the guard is first pushed up into its covering position, and the brush is applied to the teeth with the guard against the inside of the lips, the rotary motion being produced by turning the handle *a* with one hand while the sleeve *d* is held with the other. It is evident that both the interior and exterior faces of the teeth can be cleaned by the use of this device very readily and in a direction from the root toward the edges, as recommended by dentists.

What I claim as new, and desire to secure by Letters Patent, is—

1. A tooth-brush embodying a handle, a spindle secured to said handle and carrying the brush, a sleeve mounted on said spindle and provided with a conical end, and a guard for the brush adapted to slide upon the sleeve and to engage the conical end thereof, substantially as and for the purpose set forth.

2. A tooth-brush embodying a handle, a spindle secured to said handle and carrying the brush, a sleeve mounted on said spindle, and a sliding guard, substantially as described.

3. The combination, with the rotatable handle and spindle carrying the brush, of a sleeve mounted on said spindle, a sliding guard, and

means for securing the latter in its position about the brush, substantially as described.

4. The combination, with the rotatable spindle and its brush, of the sleeve mounted upon said spindle, and the sliding guard adapted to partially encompass the brush, substantially as described.

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

NICOLAUS BALOGH DE GALANTHA.

Witnesses:

ANTON FRECS,
*Architect,*

WLADIMIR SHEMIAKIN,
*Colonel.*