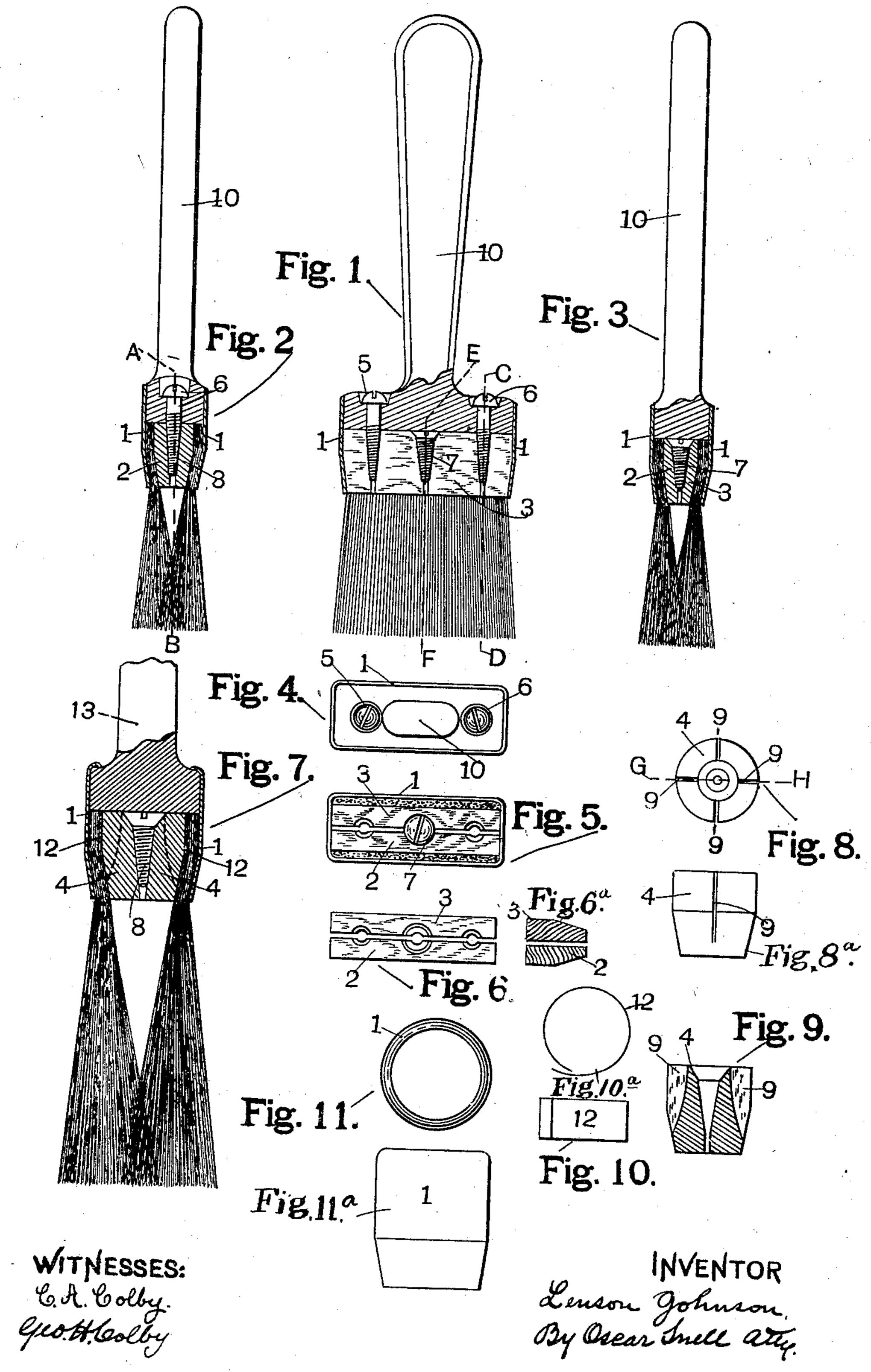
## L. JOHNSON. BRUSH.

APPLICATION FILED JAN. 4. 1902.

NO MODEL.



## United States Patent Office.

## LENSON JOHNSON, OF CHICAGO, ILLINOIS.

## BRUSH.

SPECIFICATION forming part of Letters Patent No. 719,227, dated January 27, 1903.

Application filed January 4, 1902. Serial No. 88,383. (No model.)

To all whom it may concern:

Be it known that I, Lenson Johnson, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Brushes, of which the following is a specification.

My invention relates to brushes; and my object is to provide a simple, durable, and inexpensive means for holding the bristles in position in a variety of different kinds of brushes; and it consists in the construction hereinafter more particularly described, and illustrated in the accompanying drawings, in

Figure 1 is a vertical central section of the main body portion of a brush on broken line AB, Fig. 2, in which is embodied my improvement. Figs. 2 and 3 show, respectively, sections on broken lines CD and EF of Fig. 1. Fig. 4 is a plan of the parts shown in Fig. 1. Fig. 5 is a plan to illustrate the parts exposed after the handle is removed, the upper ends of the bristles appearing at the sides. Figs. 5 and 6° show, respectively, a plan and an end elevation of a pair of retaining-blocks as

they appear removed from the brush and in the same relative position as in Fig. 5. Fig. 7 is an axial section of a circular brush, showing method of holding the bristles and handle firmly in position. Figs. 8 and 8° are respectively a side elevation and a plan of a modification of the tapered blocks shown in Figs. 6, 6°, but adapted to hold the bristles in a brush like what is shown in Fig. 7. Fig. 9 is an axial section on broken line G H, Fig. 8°. Figs. 10 and 10° show, respectively, an elevation and a plan of an open ring of some thin strong material adapted to serve as a covering for a portion of the retaining-block shown in Figs. 8, 8° and is hereinafter fully

a side elevation and a plan of the retainingring for the circular brush illustrated in Fig.7. Similar numerals indicate like parts throughout the several views.

The retaining band or ring 1 is formed to suit either a round or oblong brush and consists of a straight and a tapered portion.

described. Figs. 11, 11<sup>a</sup> show, respectively,

The means for holding the bristles against the inside of the retaining-band consists of laterally-movable retaining-blocks of any

suitable material, such as wood, the general form thereof for two kinds of brushes being shown in Figs. 5, 6, 6<sup>a</sup>, 8, 8<sup>a</sup>, and 9. Each 55 of the retaining-blocks, such as 2 and 3 or 4, are adapted to receive tapered thread-screws, such as 5, 6, 7, or 8, whose action cause the blocks to separate laterally, but are firmly held from relative movement in other directions.

In Figs. 1, 5, 6, and 6° the retaining-blocks 2 and 3 are grooved on oppositely-adjacent faces, so as to form when together tapered screw-holes; but in the retaining-block shown 65 in Figs. 8, 8°, and 9 the screw-hole is formed axially, and the block is weakened by a series of side slits 9, which do not penetrate the screw-hole and are not continued down to the bottom or tapered end of the block.

In the brush shown in Figs. 1, 2, and 3 two of the screws, 5 and 6, serve not only to spread the retaining-blocks, but also to secure the handle 10 in firm position in the retaining-band.

It is seen in Fig. 5 that on account of the bristles being arranged wholly at the sides of the retaining-blocks 2 and 3 there is an unbroken surface at the faces of both the retaining band and the blocks; but in the sectional retaining-block shown in Figs. 7, 8, 8<sup>a</sup>, and 9 the slits 9 must be covered in order to hold the bristles flush with the general surface of the block, and this is accomplished by means of the thin band 12. (Illustrated in 85 Figs. 10, 10<sup>a</sup> and shown in position in section in Fig. 7.)

It is obvious that when block 4 is placed in position within the retaining-band 1 tapered thread-screw 8 may be forced down- 90 wardly with power sufficient to split the block into four sections at the slits 9, when it will serve the same purpose as the long retaining-blocks 2 and 3 to clamp the bristles closely against the inside surface of the retaining- 95 band and firmly hold the blocks in their relative separated position.

The retaining-band 1 in Fig. 7 is shown with the upper end margin turned inwardly over the marginal edge of a shoulder of the 100 handle 13, so as to hold it firmly in position.

I claim as my invention—

1. A brush comprising a handle having a retaining-band secured to the base thereof,

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means within the band to secure the bristles in engagement with said band, and tapering screws passing through the base of the handle on either side of the handle proper and engaging in said means, the heads of the screws extending on the exterior of the handle-base, whereby the said means may be operated from the exterior of the brush.

2. A brush comprising a handle, a retain10 ing-band secured to base of the handle having inwardly-tapering sides, a pair of retain-

ing-blocks having tapering outer sides, and having their inner sides provided with tapered screw-holes, tapering screws engaging through the base of the handle into said holes of the 15 retaining-blocks, said screws being operated from the exterior of the handle-base.

LENSON JOHNSON.

Witnesses:
OSCAR SNELL,
THEO. C. KOESSEL.