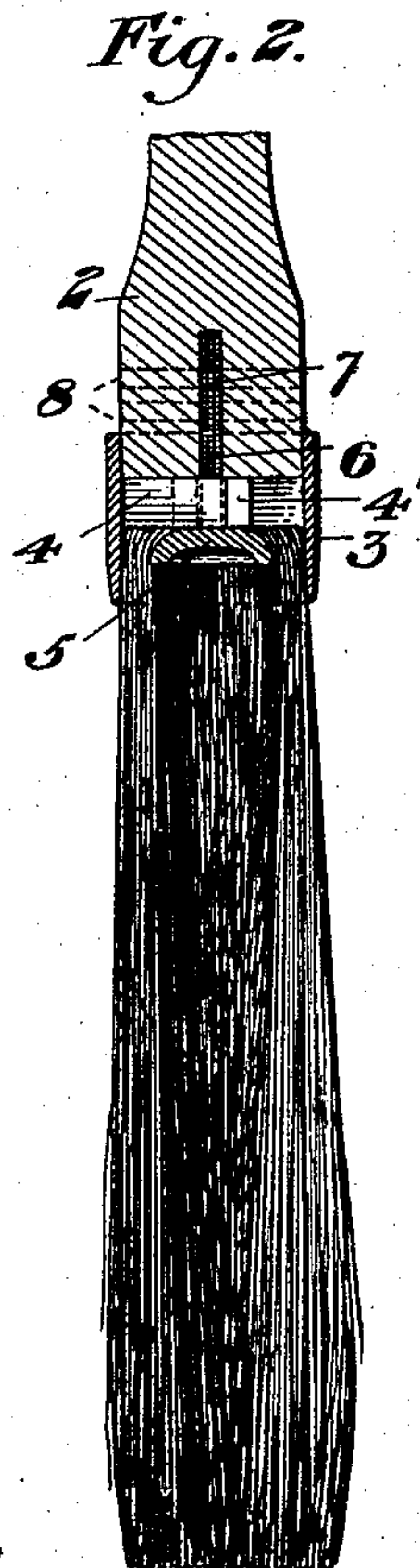
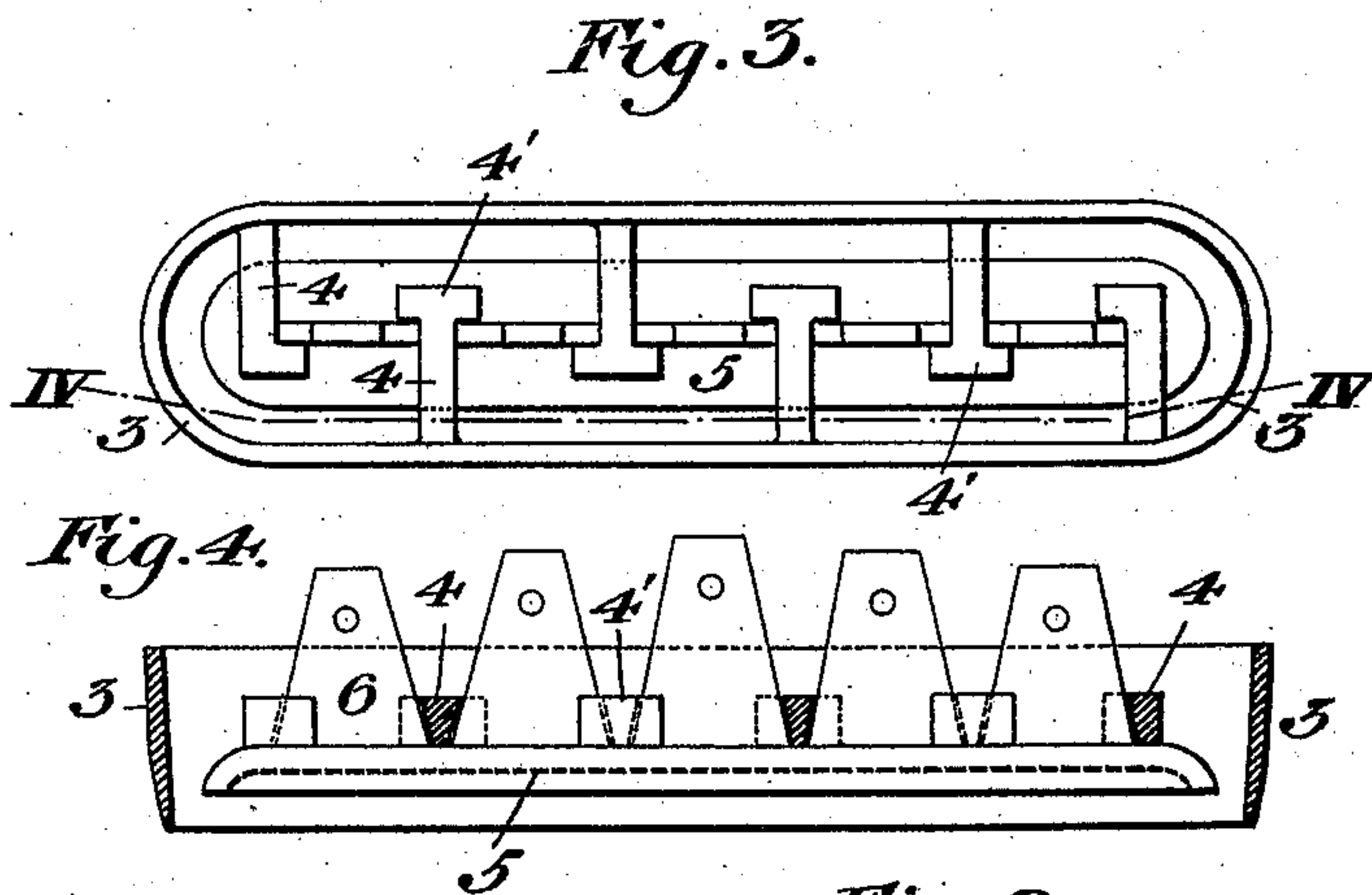
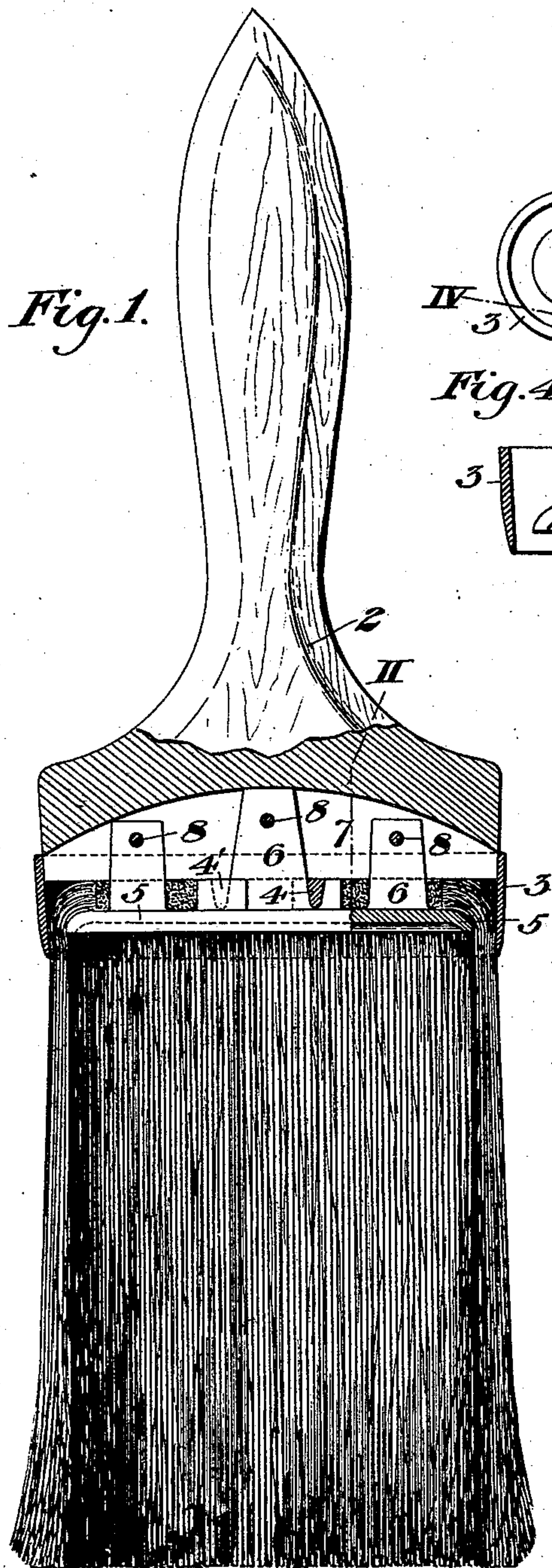


(No Model.)

R. R. WALKER.  
BRUSH.

No. 576,075.

Patented Jan. 26, 1897.



WITNESSES

*L. S. Stoddard*  
*L. A. Comer*

INVENTOR

*Robert R. Walker*  
by *Russell & Russell*  
his Attorneys.



# UNITED STATES PATENT OFFICE.

ROBERT R. WALKER, OF BEAVER FALLS, PENNSYLVANIA, ASSIGNOR OF  
ONE-HALF TO CHARLES RUHE, OF SAME PLACE.

## BRUSH.

SPECIFICATION forming part of Letters Patent No. 576,075, dated January 26, 1897.

Application filed November 4, 1896. Serial No. 611,031. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT R. WALKER, of Beaver Falls, in the county of Beaver and State of Pennsylvania, have invented a new and useful Improvement in Brushes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 shows in vertical longitudinal section a paint-brush constructed in accordance with my invention. Fig. 2 is a vertical cross-section on the line II II of Fig. 1. Figs. 3 and 4 are detail views of the ferrule and clamp, Fig. 3 being a bottom plan view of the conjoined ferrule and clamp and Fig. 4 being a vertical longitudinal section on the line IV IV of Fig. 3.

In the drawings, 2 represents the handle of the brush, the end of which is made of the width desired for the brush proper.

3 is a metal band or ferrule which is fitted around the lower end of the handle and projects therefrom, so as to afford a cavity for the reception of the bristles. The ferrule is formed with integral cross-braces 4 4, projecting alternately from opposite sides of the interior and having at the ends laterally-projecting heads 4', which are situated alternately on opposite sides of the longitudinal middle line of the ferrule.

The clamping device for holding the bristles in place consists of a metal bar or plate 5, adapted to fit within the ferrule lengthwise thereof, and having upwardly-projecting flat studs or anchoring-pieces 6, which are adapted to fit between the respective cross-braces 4, as shown in Fig. 3.

In making the brush the bristles are applied to the same within the ferrule 3, and the clamping-plate is then inserted in the middle of the bristles, so that its anchoring-pieces 6 shall extend between the cross-braces of the ferrule up into a vertical slot 7, which is formed at the base of the handle 2. The upper ends of the bristles having been previously moistened with shellac, the clamping-piece 5 confines them firmly within the ferrule, so that they are not apt to be dislodged

therefrom. The clamping-bar itself is held and braced in position by engagement with the braces 4 and the heads at the ends thereof, and the anchoring-pieces 6 of the clamping-bar are secured to the brush by cross-pins 8, which extend transversely through the end of the handle and through holes made in the anchoring-pieces themselves. In this way I provide a most substantial and effective means for securing the bristles to the brush, the parts of which are cheap in manufacture and are very easy to assemble.

It will be noticed that, as shown the drawings, the cross-braces are laterally inclined or wedge shape and that the anchoring-pieces have inclined bearings against the sides thereof. This increases considerably the stability of the device and is made the subject of one of the specific claims of this specification.

My improvement affords means for making a brush of any desired width by lengthening the ferrule and increasing the number of cross-braces and anchoring-pieces.

Within the scope of my invention as defined in the claims many changes in the form and construction of the various parts may be made by the skilled mechanic, since

What I claim is—

1. A brush having a ferrule within which the bristles are set, braces on the ferrule, and a clamping-bar having anchoring-pieces which extend between the braces and are secured by cross-pins.

2. A brush having a ferrule within which the bristles are set, cross-braces on the ferrule, and a clamping-bar having anchoring-pieces which extend between the braces and are secured by cross-pins, said cross-braces having heads against which the clamping-pieces have a bearing.

3. A brush having a ferrule within which the bristles are set, cross-braces on the ferrule, and a clamping-bar having anchoring-pieces which extend between the braces and are secured by cross-pins, said cross-braces extending only part way across the ferrule and having heads against which the clamping-pieces have a bearing.

4. A brush having a ferrule within which  
the bristles are set, cross-braces on the fer-  
rule, and a clamping-bar having anchoring-  
pieces which extend between the braces and  
5 are secured by cross-pins, said anchoring-  
pieces having an inclined or wedge bearing  
against the cross-braces.

In testimony whereof I have hereunto set  
my hand.

ROBERT R. WALKER.

Witnesses:

W. C. FESSENDEN,  
Jos. C. ROUZER.