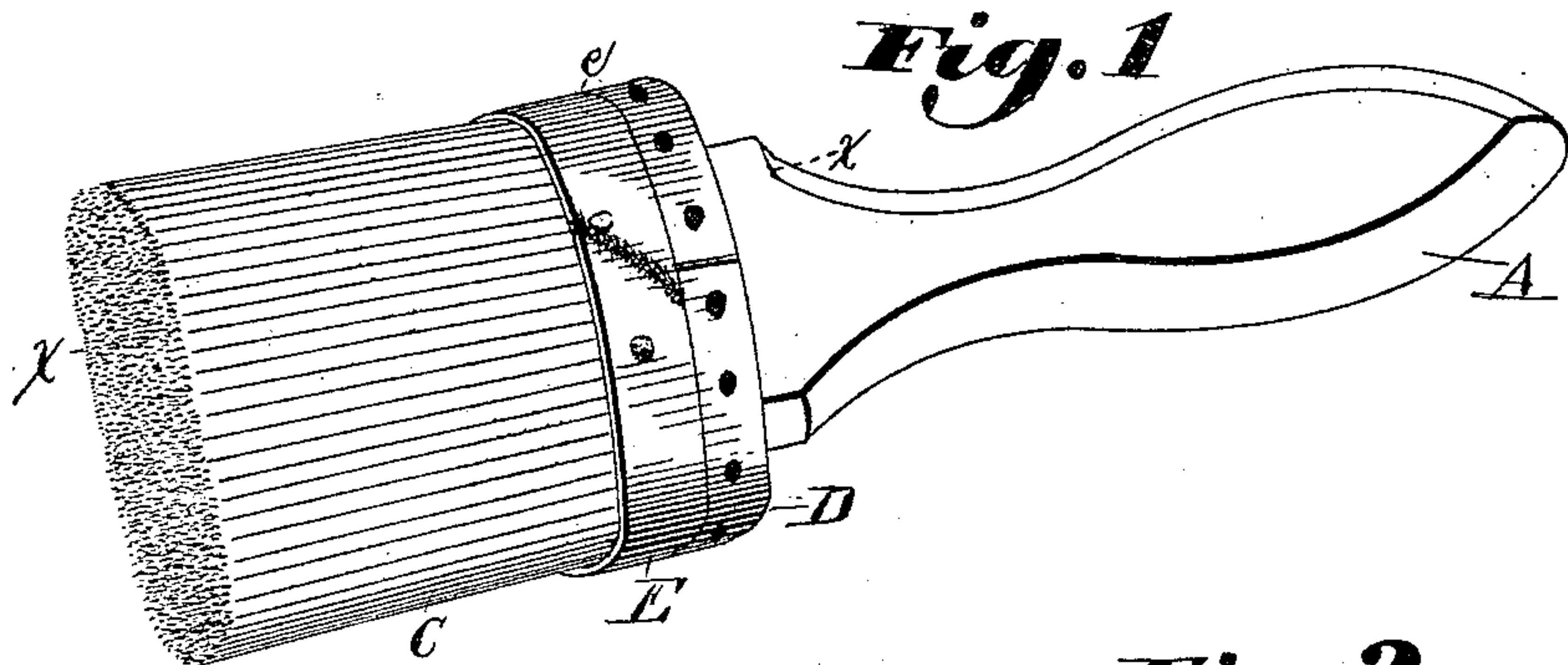


(No Model.)

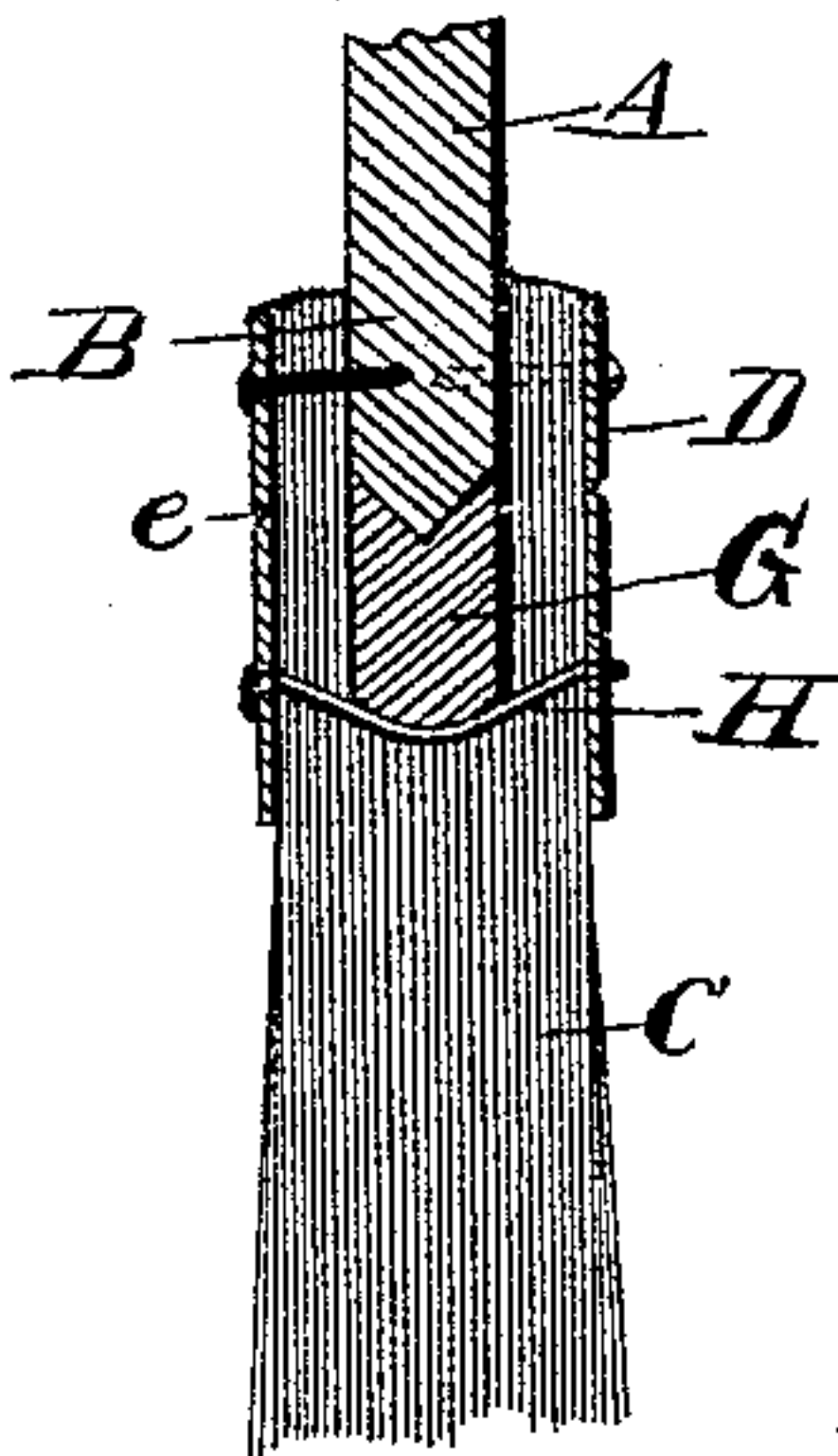
E. F. CHUMARD.  
BRUSH.

No. 457,862.

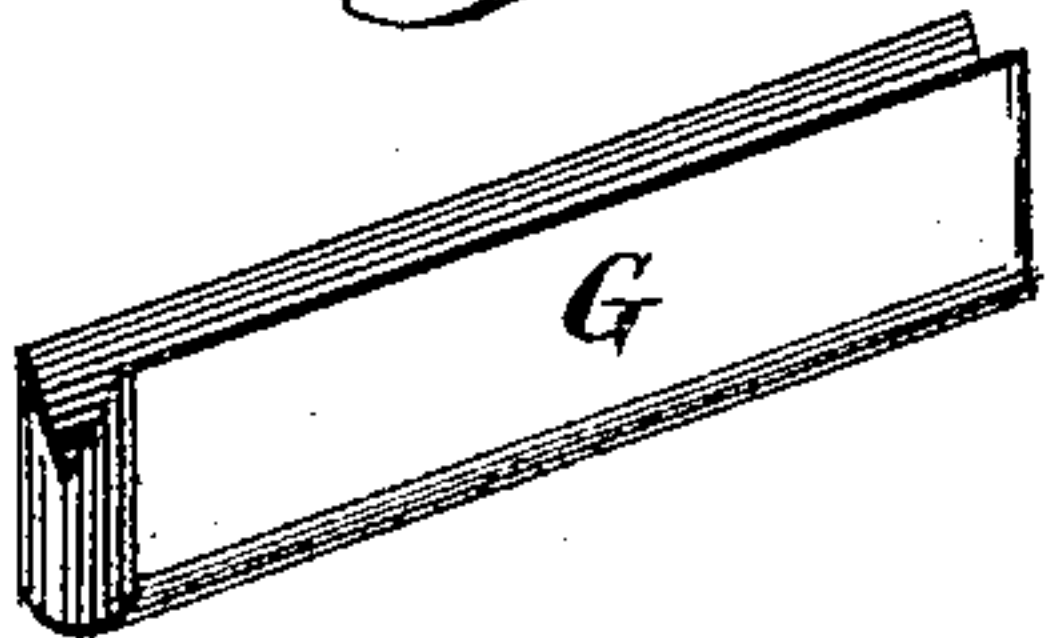
Patented Aug. 18, 1891.



*Fig. 2*



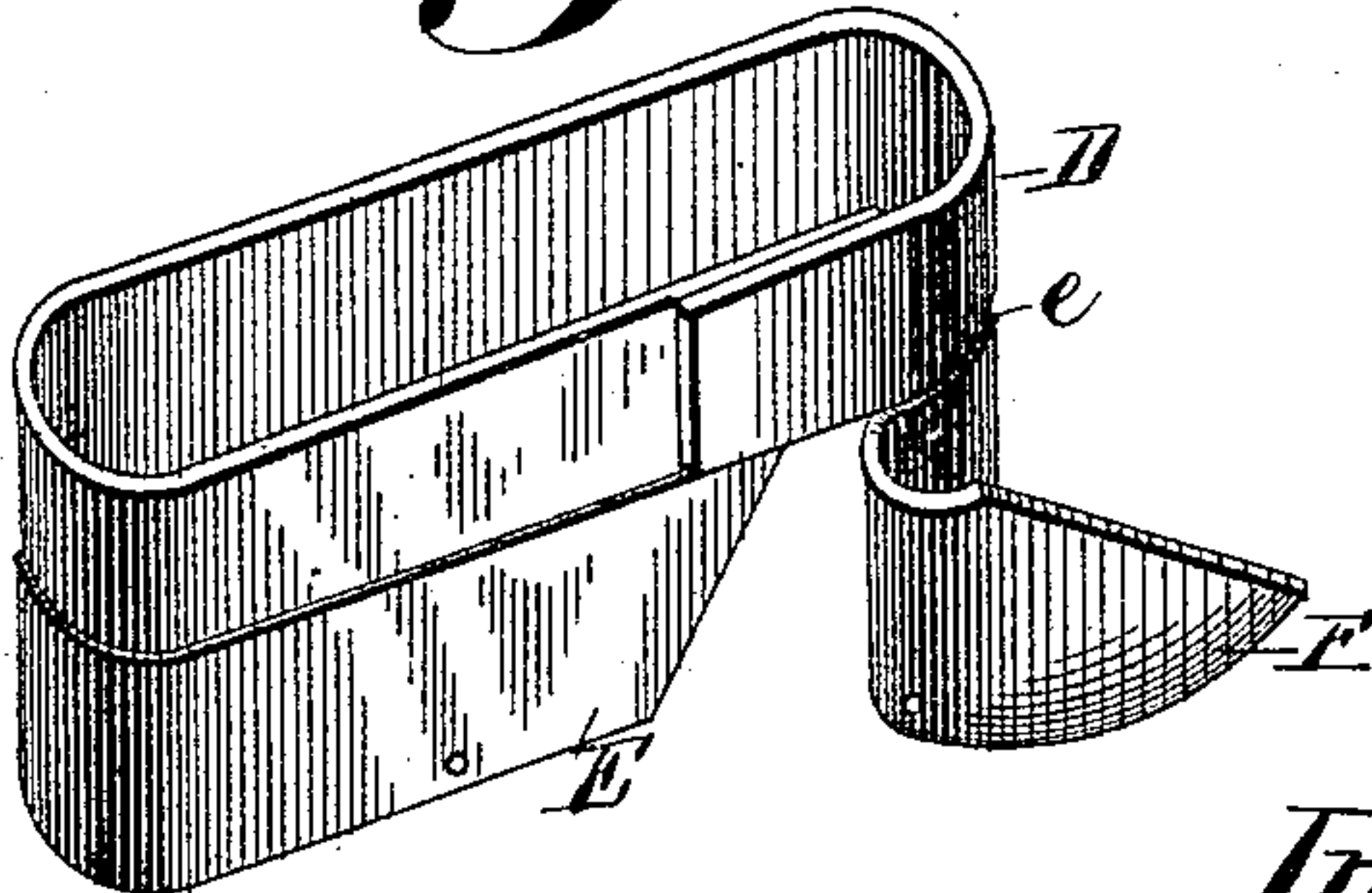
*Fig. 3.*



*Fig. 5*



*Fig. 4.*



Witnesses:

Fred W. Cornwall,  
Wm. Helston

Inventor:

Edmund F. Chumard  
By  
his Attorney  
C. N. Helston



# UNITED STATES PATENT OFFICE.

EDMUND F. CHUMARD, OF COLFAX, WASHINGTON.

## BRUSH.

SPECIFICATION forming part of Letters Patent No. 457,862, dated August 18, 1891.

Application filed October 29, 1889. Serial No. 328,563. (No model.)

*To all whom it may concern:*

Be it known that I, EDMUND F. CHUMARD, a citizen of the United States, residing at Colfax, in the county of Whitman and State of Washington, have invented certain Improvements in Brushes, of which the following is a specification.

My invention relates to an improvement in brushes; and it consists in the construction and arrangement of the parts thereof, which will be more fully described hereinafter, and carefully defined in the claims.

The object of my invention is in part to provide an improved brush with a detachable bridle or extension-band, which may be readily removed when required and which while in position holds the bristles in a secure and firm manner, and in part to provide such a brush with a removable extension-block held in place, as will be hereinafter described. I attain this object in a hollow center brush by the construction illustrated in the accompanying drawings, wherein like reference-letters indicate corresponding parts in the several views, and in which—

Figure 1 is a perspective view of a flat hollow center brush with my bridle in place. Fig. 2 is a central longitudinal section of the same. Fig. 3 is a detail perspective view of the extension-block, and Fig. 4 is a detail perspective view of the bristle-retaining band and bridle, the latter being represented as partly detached. Fig. 5 is a detail sectional view of another mode of uniting the retaining-band and bridle.

In the drawings, A represents the handle, B the stock or that portion of the handle to which the bristles are secured, and C the bristles of the brush. The bristles are secured to the handle by a band D, preferably of metal, in the usual or any well-known manner.

The material which forms the band D and the bridle E is creased along the line or groove *e* deep enough to allow of the bridle being torn away readily from the band D when the bristles become sufficiently worn down to necessitate the removal of the said bridle E in order to free that portion of them primarily inclosed thereby; or, the band D and bridle E may be formed of separate strips or pieces of metal, if metal be employed, the bridle E

slightly overlapping the band D on the outside and lightly soldered thereto before being put on the brush.

In the common flat wall-brush with hollow center I place an extension-block G on the end of the stock B and secure it to the stock till the brush is finished by means of a small nail or otherwise.

When the bristles, the band, and the bridle are in position and fastened to the handle or stock, I fasten the overlapping diagonal end F of the bridle lightly with solder. I then pass the end of a wire or thread H through a small hole or aperture in the bridle, said hole being near the edge of the bridle farthest from the band D. I pass the end of the wire through the bristles and out through a similar hole in the bridle on the opposite side of the brush. I pass the end of the wire two or more times through the brush, and the holes in the bridle then draw it tight and fasten the ends with solder or otherwise. The wires in traversing the brush pass across or over the outer end of the extension-block, as seen in Fig. 2. This sewing or stitching of wire, thread, or the like serves to hold the bridle up snugly to the bristles and to maintain the flat form of the brush. The wire or stitching serves to hold the block G in place also permanently until the bridle is removed.

When the bristles become worn off and it is desirable to remove the bridle E, the wire H is cut or broken. The end F of the bridle is then torn up with any sharp instrument, and the said bridle may then be easily torn away, thus securing again the necessary working length of bristles. The block G will now be freed and will be removed together with said bridle.

The groove *e* along the line uniting the bridle E to the band D extends by preference throughout the entire length of said band and bridle, and the same is true of the construction where these parts are united by solder. Thus a weakened line of separation is provided without entirely separating the parts at any point.

I am aware that it is not new to provide a brush with a detachable bridle, and I am also aware that it is not new to provide a cylindrical brush which has its bristles secured to the stock by a spirally-wrapped binding wire



or cord with a cylindrical metallic tube formed so as to screw onto said wires, said tube having a series of circumferential slits which partially sever it, so that it may be removed in  
5 sections. Such a construction is obviously not adapted to a flat brush, and it differs from the construction herein shown in the bridle, not being a part of the bristle-retaining band. In my brush no wrapping of wire is employed,  
10 and the band D is applied directly to the bristles and secured rigidly in position, thus forming a permanent part of the brush, the bridle only being removable.

Having thus described my invention, I  
15 claim—

1. In a flat hollow-center brush, the combination, with the handle, the bristles, the bristle-retaining band, and the detachable and removable bridle united at one edge to said

band, of the extension-block situated at the  
inner end of the handle, and the retaining-wire extending through the said bridle and bristles and over said block to hold said block in place, substantially as set forth.

2. In a flat hollow-center brush, the combination, with the handle, the bristles, and the bristle-retaining band, of a detachable bridle E, an extension-block arranged in the hollow of the brush, and means, substantially as described, for retaining said block in place until the said bridle is removed, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EDMUND F. CHUMARD.

Witnesses:

U. L. ETINGER,  
W. H. ALFRED.