W. D. FOSS.

BRUSH.

APPLICATION FILED AUG. 25, 1911.

1,038,552. Patented Sept. 17, 1912.

Fig. 1.

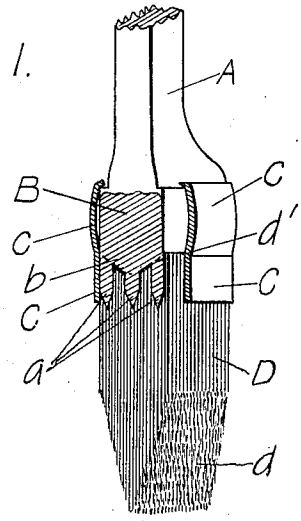


Fig. 2.

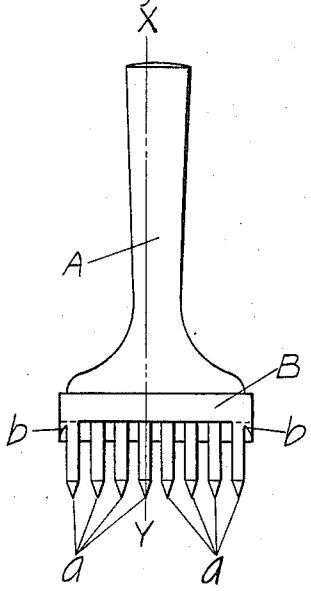
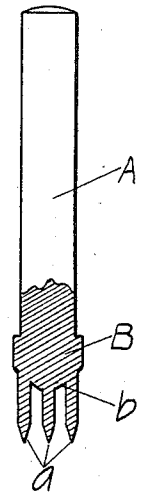


Fig. 3.



WITNESSES:

J. E. Applebaugh Jr.

M. P. Lunt

INVENTOR

Walter D. Foss

BY Hiram B. Swartz

ATTORNEY.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WALTER D. FOSS, OF WOOSTER, OHIO.

BRUSH.

1,038,552. Specification of Letters Patent. Patented Sept. 17, 1912.

Application filed August 25, 1911. Serial No. 646,032.

To all whom it may concern:

Be it known that I, WALTER D. FOSS, a citizen of the United States, residing at Wooster, in the county of Wayne and State of Ohio, have invented a new and useful Improvement in Brushes, of which the following is a specification.

My invention relates to improvements in brushes, and particularly to varnish brushes and others of the class which require the brush material to be pointed or "chiseled" at the end.

The object of my invention is to provide a "chisel pointed" varnish brush of such construction as to utilize in the brush-head all the natural bulbs or roots of the bristles instead of cutting them off as heretofore required to fit them to the under surface of the brush-head; second, to give greater strength, elasticity and holding power to the bristles, especially to the outer portion thereof in the brush-head; third, to avoid the use of fastening nails passing through the ferrule, as heretofore required in the construction of flat varnish brushes.

It consists primarily of assembling and securing a bunch or knot of bristles upon a convexed surface of the brush-head block in such a manner that the outer bristles of the brush-head extend farther into the ferrule than the interior bristles thereof, thereby forming a tapering or "chisel point" to the brush without cutting off the root or bulb ends of the bristles.

Heretofore a means or method has been provided for the formation of a chisel point for brushes by assembling a bunch or knot of bristles over a removable form or "plug" placed in a band for the butt ends of the bristles to rest on, such plug having a tapering or beveled end corresponding with the desired chisel point of the brush, whereby bristles of equal lengths are brought in the desired form for the brush, and then bound together and cut off square to match the usual flat under surface of a brush-head, and such device I neither use nor claim, as it requires the cutting or squaring off of the butt ends of the bristles, which it is one of the principal objects of my invention to retain. Moreover the process or method is expensive, and its use weakens the construction of the brush by its provision for "squaring off" the knot of bristles, whereby the root ends of all the outer bristles of the brush-head are cut off, thereby depriving them of the natural bulbs which give them a greater holding power, and also shortening the outer bristles of the brush-head and wasting their material. Other methods of forming a "chisel point" for a brush have been used, but none of them have provided means for making a completed flat varnish brush of this character, and my invention does not relate to the mere method of assembling the bristles preparatory to securing them to a brush-head, but to the novel construction of a completed flat chisel-pointed varnish brush, wherein the bristles have a concavity formed in their butt ends, and the brush-head block is provided with a convex or V-shaped under surface adapted to fit such concavity, all as hereinafter more fully set forth, and as stated in the appended claim.

My invention is illustrated by the accompanying drawings in which similar letters of reference indicate like parts.

Referring thereto, Figure 1 is a vertical section in perspective of a brush embodying my invention. Fig. 2 is a side elevation of my improved brush-head detached. Fig. 3 is a vertical cross-section of Fig. 2 on the line X—Y.

In the drawings, A is the handle and B the block end thereof which is preferably integral therewith, C is the ferrule, and D the bristles or brush material. The handle of my improved brush is made in the usual well known way, and may be of any desired form. The under surface *b* of the block B is rounded in oval or V-shaped form, making, in a flat brush, a longitudinal ridge along said under surface. Upon this rounded surface a series of pegs *a a* are mounted integral therewith, as shown in Fig. 3. The bristles D are bunched in such a manner that their upper surface is cupped in inverted oval or V-shaped form corresponding with the rounded form of said block B, and are solidly massed within the ferrule C, their lower ends tapering to a chisel point *d*. Said ferrule extends downwardly over the block B, and thence over the bunch of bristles D to a point about even with the lower ends of the pegs *a*, as shown at *c*, Fig. 1. After said pegs are driven into the bristles within said ferrule, the latter is solidly secured to said block and to said bristles by compression, the lower part of the body of said ferrule being so made as to extend downwardly in line with the bristles so as

to lie and rest flatwise and solidly against the same below said block, as shown in Fig. 1, thereby more firmly securing the same within the ferrule than heretofore.

I am aware it is not new to construct a round paint brush having a brush-head block provided with a series of pegs projecting from a flat under surface, and such pegs driven into a bunch or knot of bristles which have been cut off square to fit such flat under surface, and such I do not broadly claim. Such construction is inapplicable and cannot be used to produce a thin, flat varnish brush, for want of sufficient fastening means to secure the knot of bristles to the brush-head block; and this is especially true in the construction of such a brush "chisel pointed," because of the necessity of cutting the knot of bristles off square to fit the said flat surfaced block heretofore used as aforesaid, thereby destroying much of the holding power of the outer bristles by cutting off their root or bulb ends as and for the reason aforesaid. To overcome these defects, I provide means for giving the outer bristles a deeper setting within the ferrule, and to also avoid any cutting off or shortening of the bristles. I accomplish this by the use of a brush-head block provided with a convex or V-shaped under surface, (instead of a flat surface as heretofore,) having a series of pegs integral therewith and projecting therefrom, adapted to be driven into the butt ends of the knot of bristles assembled in such a manner that their outer portions extend farther into the ferrule than the inner portion thereof, on account of the said concavity formed in the knot of bristles to register with said convex surface as aforesaid. By these means the root bulbs of the bristles are left entire, and their holding power preserved, and the outer bristles extend up higher than the inner bristles, thus affording more of holding surface within the ferrule, thereby also making it possible to use a heavier and wider ferrule than heretofore, which may thus be effectually swaged or compressed around the bristles as to better secure them in the brush-head without the use of tacks or any of the other fastening means heretofore required in varnish brushes.

I do not limit myself to the particular form of the several parts as shown, but the same may of course be modified within the spirit of my invention.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is;—

In a brush, the combination with a brush-head block having a convexed under surface, a mass of bristles having a concavity adapted to fit over said convexity in such a manner that the root ends of the outer portion of said mass will extend higher up in the completed brush than the inner portion thereof, and said mass will taper outwardly to a point; a series of pegs projecting from said convex surface and forced into the said root ends in said concavity, and a ferrule secured to said block and said bristles, the outer portion of said mass of bristles extending deeper into said ferrule than the inner portion thereof, substantially as set forth and for the purpose specified.

In witness whereof, I hereunto set my hand this 21st day of August, A. D. 1911.

WALTER D. FOSS.

In presence of—
HIRAM B. SWARTZ,
WILLIAM LAPER.