

M. MARCUS.
BRUSH.
APPLICATION FILED OCT. 5, 1909.

953,277.

Patented Mar. 29, 1910.

Fig. 1.

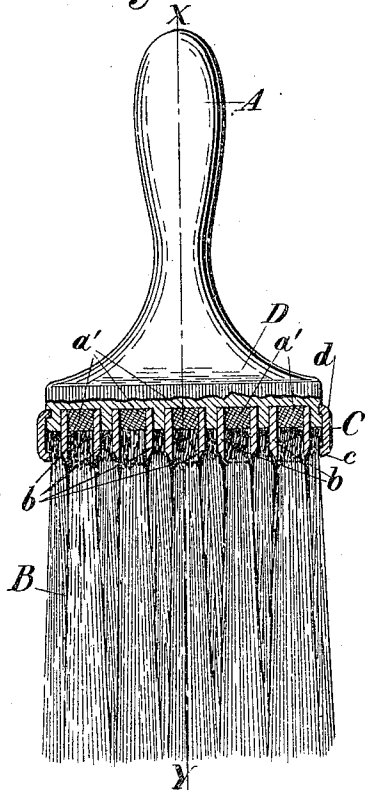


Fig. 2.

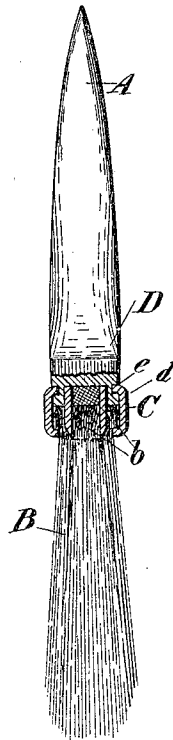


Fig. 5.

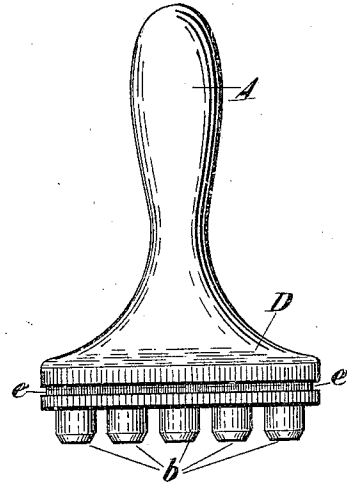


Fig. 4.

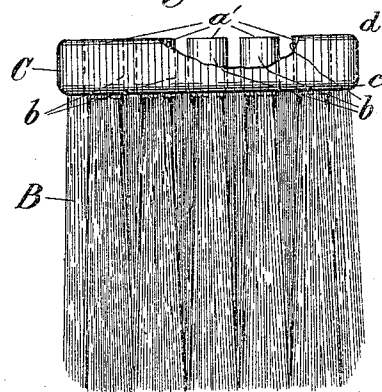
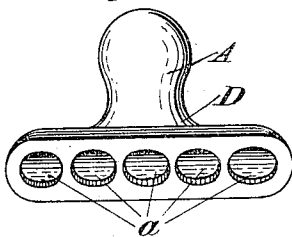


Fig. 3.



Witnesses:
J. E. Applebaugh.
W. O. Beebe

Inventor:
Michael Marcus
By Hiram B. Swartz
Atty.

UNITED STATES PATENT OFFICE.

MICHAEL MARCUS, OF WOOSTER, OHIO.

BRUSH.

953,277.

Specification of Letters Patent. Patented Mar. 29, 1910.

Application filed October 5, 1909. Serial No. 521,174.

To all whom it may concern:

Be it known that I, MICHAEL MARCUS, a citizen of the United States, residing at Wooster, in the county of Wayne and State of Ohio, have invented a new and useful Brush, of which the following is a specification.

My invention relates to improvements in brushes. Its object is to provide more efficient means for securing the bristles or other material for a brush to the handle thereof or to the brush head, to simplify and cheapen its construction, and to make the brush more pliable and durable.

It consists mainly in combining with the brush head a plurality of hollow plugs solidly secured thereto, and embedding the same in the brush material within the ferrule, and means for firmly securing the ferrule thereon and to the handle of the brush, as will be more particularly described and claimed hereinafter.

My invention is illustrated by the accompanying drawings in which similar letters of reference indicate like parts. Referring thereto, Figure 1 is a view of a flat brush embodying my invention, part thereof being cut away for better illustration of the interior of the brush-head. Fig. 2 is a vertical cross section of Fig. 1 on the line X Y. Fig. 3 is a perspective view of the handle of my brush detached from the brush-head. Fig. 4 is a view of my brush-head with the handle detached. Fig. 5 is a side view of a brush handle showing the hollow plugs and groove for the ferrule.

In the drawings, A is a brush handle, which may be made in any form suited to the kind of a brush intended.

B is the body of bristles or other suitable brush material.

C is the ferrule, which is made of any suitable sheet metal, and D is the enlargement of the handle which forms the brush-head, and to which the several parts of the brush are attached. To better secure the brush material to the brush-head, I secure to the bottom surface of the handle D a plurality of hollow plugs *b*, arranged in any desired order according to the size and shape of the brush-head. These plugs project from the head D so as to enter the brush material within the ferrule C, but I preferably secure them to the handle by boring shallow holes *a a* within the under surface of the head D as shown in Fig. 3 and fit

the upper ends *a'* of the plugs snugly therein and secured by glue. The projecting portion of the plugs are bored out so as to leave only a thin peripheral body terminating wedge shaped to more readily enter the brush material. The projection of the plugs is shown in Fig. 5, and their arrangement within the ferrule C is shown by dotted lines in Fig. 4 and by cross section in Fig. 1. The number of plugs may be varied to suit the size and shape of the brush head, but I prefer to make the periphery of the plugs as thin as may be with the material used, so as to have the largest possible number of plugs embedded in the brush material. If preferred the plugs may be made of metal or any other suitable substance, and they may be secured to the handle in any desired manner. The brush is completed by assembling the brush material within the metal ferrule C thoroughly saturated with cement material, and forcing the plugs *b b* attached to the handle into the brush material within the ferrule, as shown in Fig. 1. Pressure is then applied all around the ferrule until the parts are solidified, and the upper edge *d* of the ferrule is bent inwardly by said pressure into a groove *e* which is cut shallow around the head D a short distance above its lower edge as shown in Fig. 5; and the lower edge *c* of the ferrule C is also bent inwardly against the brush material, thereby making all the parts securely bound together; and the brush material is thus evenly distributed within the ferrule about said plugs in a manner to better secure said material, and make a strong, pliable and lasting brush, which may be adapted to either paints or varnish, or other liquid material.

I do not limit myself to the particular shape of the several parts as shown, nor the kind of material, or other mere form, which may be varied within the scope of my invention.

Having thus fully described my invention, what I claim is:—

1. A brush comprising a head and a suitable handle, a ferrule carried by the head and projecting beyond the same, brush material in the recess formed by the projecting portion of the ferrule, and a plurality of hollow plugs projecting from said head embedded in the brush material, the ferrule holding said material and inclosing said hollow plugs therein under compression, substantially as set forth.

2. In a brush, the combination with a head and a handle, said head having an external groove near its lower edge, and a plurality of hollow plugs projecting from its lower end, a ferrule carried by the head and projecting beyond the same, brush material within the ferrule and within the plugs embedded therein, said ferrule engaging said external groove and inclosing said brush

material and said hollow plugs therein 10
under compression in connection with a cement material, substantially as set forth.

In witness whereof, I hereunto set my hand this 2 day of September A. D. 1909.

MICHAEL MARCUS.

In presence of two witnesses:

HIRAM B. SWARTZ,

BENTON G. HAY.