

E. THAYER.
Paint Brush.

No. 64,596.

Patented May 7, 1867.

FIG. 1.

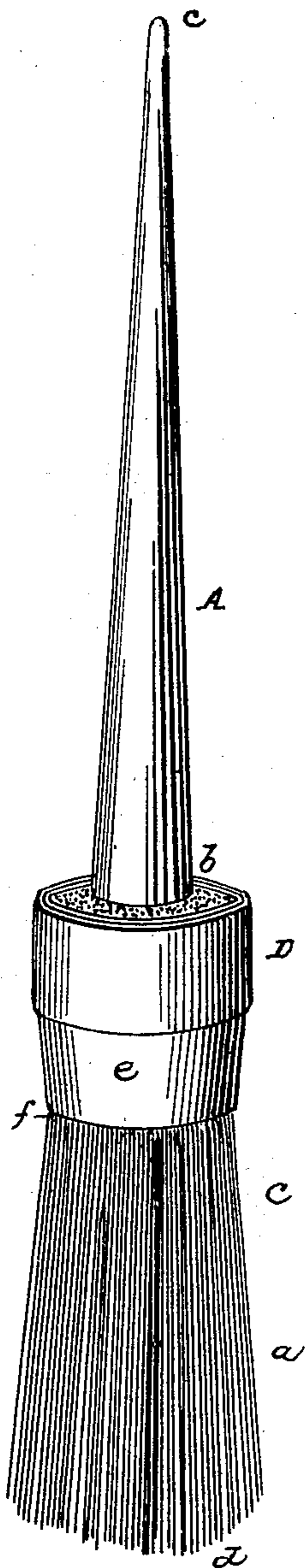
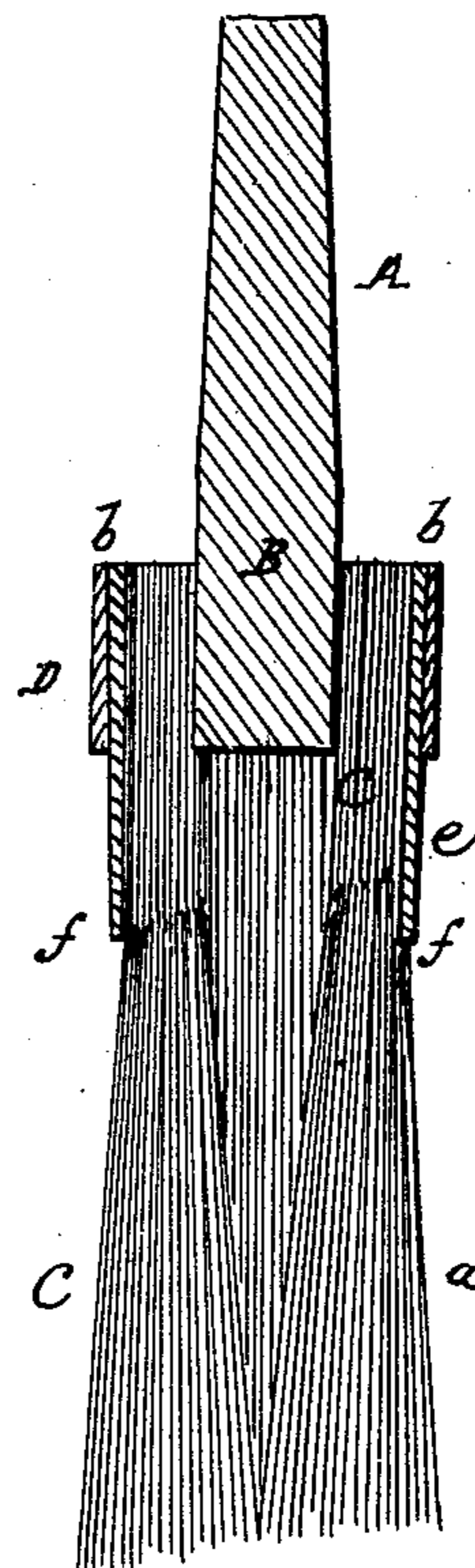


FIG. 2.



WITNESSES:

Thos H. Dodge.
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INVENTOR.

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United States Patent Office.

ELLIS THAYER, OF WORCESTER, MASSACHUSETTS.

Letters Patent No. 64,596, dated May 7, 1867.

IMPROVED PAINT AND VARNISH-BRUSH.

The Schedule referred to in these Letters Patent and making part of the same.

KNOW ALL MEN BY THESE PRESENTS:

That I, ELLIS THAYER, of the city and county of Worcester, and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Paint and Varnish-Brushes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a side and perspective view of a paint and varnish-brush made according to my invention; and

Figure 2 represents a longitudinal central section of the brush, the handle being shown broken off.

To enable those skilled in the art to which my invention belongs to make and use the same, I will proceed to describe it.

In the drawings, A represents the handle of the brush, the base, B, of which is driven in so as to occupy the position, as respects the bristle or brush part C and ferrule D, as shown in the drawings.

As heretofore made the butts of the bristles *a* have been allowed to press directly against the metal ferrule D. To this mode of making the brush there are several objections. In the first place the bristles are forced into ridges where they come in contact with the metal ferrule, which renders the brush less effective when in use, since the paint or varnish cannot be laid so smooth as when the bristles lie even on the outer surface of the brush part C. Again, when the bristles come directly in contact with the unyielding metal ferrule D, if the base of the handle gets wet or moistened it swells and compresses the ends or butts of the bristles to such an extent that when it dries again the bristles are apt to become loose and pull out.

All of the foregoing and other objections I obviate by the use of an elastic packing ring, *b*, inserted between the bristles and the ferrule D, as fully indicated in the drawings. This packing ring I prefer to make of rubber. It is applied as follows: A section of a rubber ring is cut off and the butts of the bristles inserted in it, after which the metal ferrule D is placed over the rubber ring or packing *b*, and the point *c* of the handle A is passed in through the middle of the ends *d* of the bristles *a*, and then the handle is driven in until it is made to occupy the position shown in the drawings. As the handle A is made slightly tapering the bristles are gradually compressed between the handle and the ferrule D until they are securely fastened, the rubber packing yielding somewhat as the operation proceeds. By the elasticity of the rubber, the bristles are caused to arrange themselves upon the surface of the brush part in a perfectly smooth and even manner. Again, if the base gets wet or becomes expanded by moisture the rubber ring or elastic packing *b* yields and then contracts again, as the base of the handle contracts, so that the bristles are always retained in a secure manner.

In many cases it is desirable to have the bristles covered below the ferrule when the brush is new, and it is the custom of painters to wind the bristles below the ferrule D with twine, and then cut off or unwind the twine as the ends *d* of the bristles become worn off. In other cases paper tubes may have been used.

There are objections to both of these plans. In the latter case, when the brush is used the bristles are forced from one side of the core, which, being unyielding, leaves an open space between the core and the bristles, into which the paint is liable to enter, and thus injure the operation of the brush, while the former plan is attended in the first instance with considerable trouble and inconvenience, and, besides, the twine is constantly liable to get out of order or become displaced.

To remedy the above objections, I extend the elastic packing or ring *b* down upon the bristles below the ferrule, as seen at *e* in the drawings. It will be observed that the end *f* of the sheath or packing tube *b* contracts upon the bristles so that there is no chance for the paint or dirt to enter between the bristles and the inside of the tube or packing ring *b*. As the ends *d* of the bristles *a* are worn off, the rubber or other elastic case *b* may be rolled up or cut off, as may be preferred. In lieu of having the part *e* below the ferrule form a part of the packing ring *b*, it may be a separate piece. In the latter case it may be long enough to be drawn over the bristles and ferrule both, or may be cut short so as to cover only the bristles. When the part *e* is made and applied separately from the packing tube *b*, it can be cut off at its end *f*, or it may be pulled back upon the ferrule as the ends *d* of the bristles *a* are worn off, and thus saved for use upon other brushes. The parts *b* and *e* may be made of rubber, or rubber and cloth combined, or of any other elastic or yielding material. The yield-

ing tube or sheath *e* may be applied to brushes which do not have the packing ring *b*. It may be used upon any brush with good effect.

Having described my improved paint and varnish-brush, what I claim therein as new, and of my invention, and desire to secure by Letters Patent, is—

1. The combination, with the brush-handle, bristles, and ferrule for holding the same upon the handle, of an elastic packing interposed between the ferrule and bristles, substantially as and for the purposes set forth.

2. In a brush, as herein described, the combination, with the bristles and ferrule, of an interposed tube of rubber or other elastic material, extending down upon the bristles below the ferrule as and for the purposes herein specified.

ELLIS THAYER.

Witnesses:

THOS. H. DODGE,

D. L. MILLER.