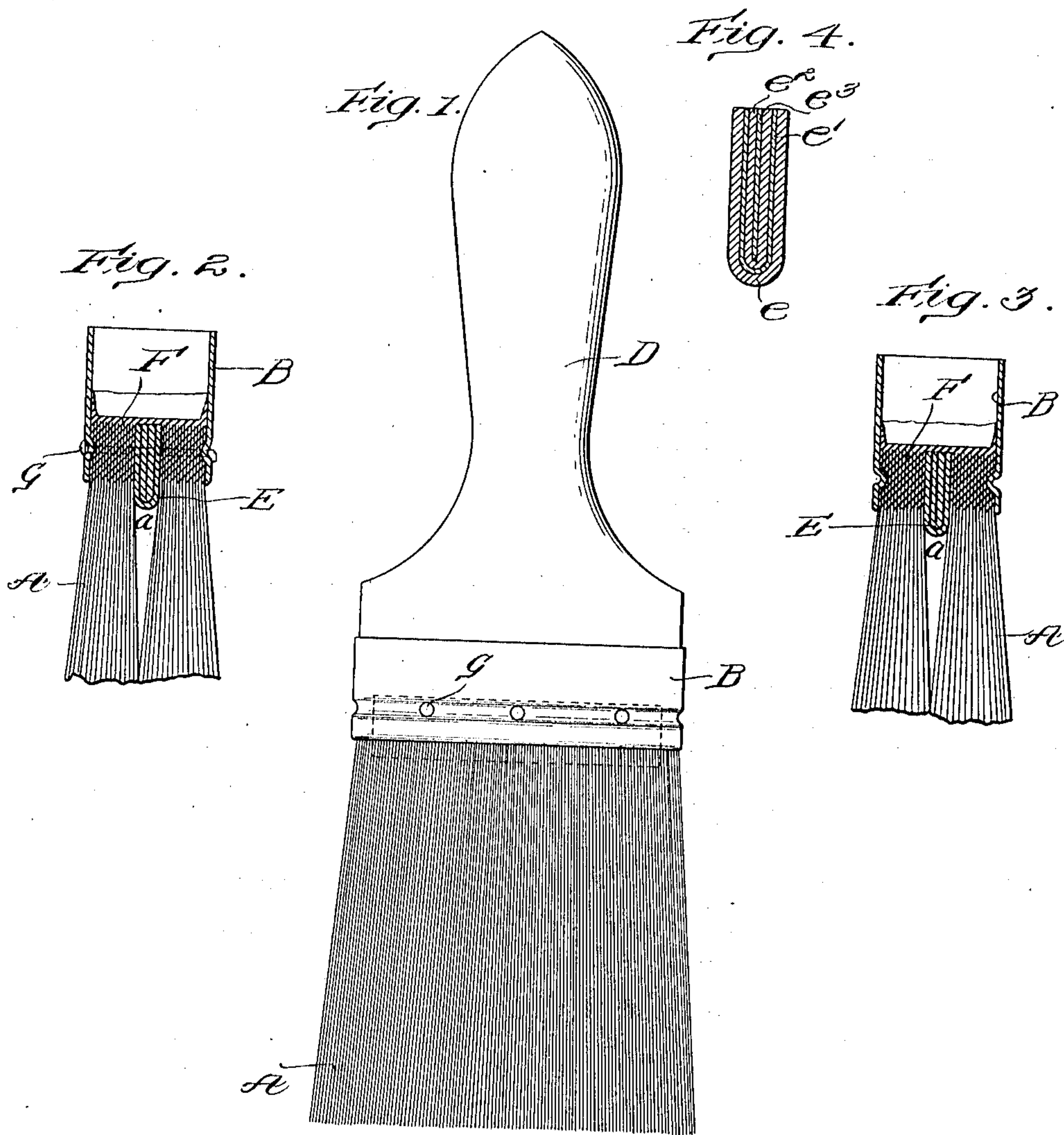


1,040,407.

G. D. PUSHEE.
BRUSH.
APPLICATION FILED DEC. 23, 1910.

Patented Oct. 8, 1912.



Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE D. PUSHEE, OF WESTON, MASSACHUSETTS.

BRUSH.

1,040,407.

Specification of Letters Patent.

Patented Oct. 8, 1912.

Application filed December 23, 1910. Serial No. 599,018.

To all whom it may concern:

Be it known that I, GEORGE D. PUSHEE, a citizen of the United States, and resident of Weston, in the county of Middlesex and State of Massachusetts, have invented a new and useful Brush, of which the following is a specification.

It is very desirable that there be a separator centrally arranged within the bunch of bristles near the roots so that there will be an opening to receive the paint or other liquid which works along the bristles toward the roots. It has theretofore been customary to use wood as such separator but this is defective because the paint or other liquid swells the wood and causes the ferrule to bulge out of shape, and if the wood then contracts the bristles are left loose and are likely to come out. Another objection to the use of wood is that it must be attached to the ferrule by nails or equivalent devices and such devices are likely to crack the wood. This cracking will not be visible but when the brush is used the cracked wood will become loose and the bristles will fall out.

The main object of my invention is to overcome these objections and my invention consists mainly in providing a liquid-proof separator for the bunch of bristles.

Other features of my invention will be pointed out below.

In the drawings Figure 1 is an elevation of a brush embodying my invention; Fig. 2 is a section of the same on line 2—2 but omitting the handle, and being on a larger scale; Fig. 3 is a similar view of a modification; and Fig. 4 is an enlarged sectional view of the separator.

The roots of the bunch of bristles A are inclosed by ferrule B which is attached to the handle D in any suitable way. Centrally arranged within the bunch of bristles is separator E (appearing in dotted lines in Fig. 1). The separator consists of an outer U-shaped layer of rubber e , a U-shaped layer of duck e' , an inner U-shaped layer of rubber e^2 and an inner layer of duck e^3 , the ends of the layers being substantially flush with the tops of the roots of the bristles. It will be clear that the separator may be made entirely of rubber or of any suitable arrangement of textile fabric and rubber or in fact of any liquid-proof material.

F represents vulcanizing material which is above the roots and also extends down around the roots. Beneath the separator is opening a adapted to receive whatever liquid may work upward thereto. Nails G may be used to aid in holding the bristles in the ferrule although nails are not necessary to prevent bulging of the ferrule because there will be no bulging in my brush because I use a liquid-proof separator. I have illustrated a brush without nails in Fig. 3.

In making my brush I prefer to assemble the bunch of bristles with the separator centrally arranged within the bunch, then inclose the bristles in the ferrule, then apply vulcanizing material to the roots of the bristles, then apply the nails if they are to be used and then vulcanize the ferrule to the bristles and the latter to the separator, and also the bristles to the nails if nails are used.

Among the many advantages of my brush I may call attention to the efficient holding of the bristles and to the retention of the proper shape of the ferrule.

What I claim is:

1. A brush comprising a handle; bristles connected with the handle bunched around a central opening; and a liquid proof separator within the bunch of bristles and entirely covering that end of the opening which is toward the handle.

2. A brush comprising a bunch of bristles, and a separator within said bunch consisting of an outer layer of rubber and an inner layer of duck.

3. A brush comprising a bunch of bristles, and a separator within said bunch consisting of a U-shaped layer of rubber and a U-shaped layer of duck within said layer of rubber, the ends of the layers being substantially flush with the ends of the roots of the bristles.

4. A brush comprising a bunch of bristles, a ferrule encircling the roots of said bunch; and a separator within said bunch, the ferrule being vulcanized to said roots and the roots to said separator, substantially as described.

GEORGE D. PUSHEE.

Witnesses:

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