

G. S. BUTTERFIELD.
BRUSH.

APPLICATION FILED FEB. 9, 1907.

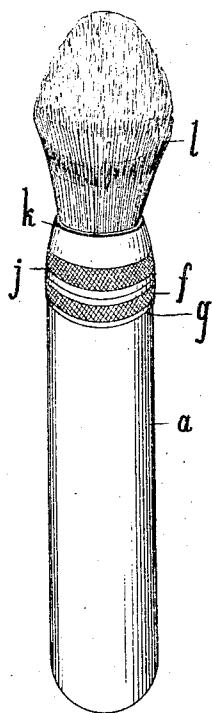


Fig. 1.

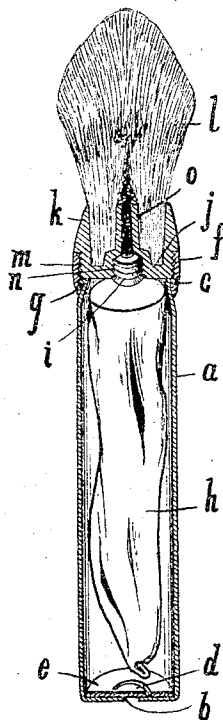


Fig. 2.

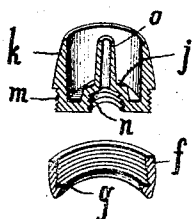


Fig. 3.

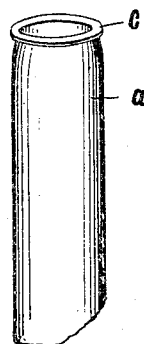


Fig. 4.

Witnesses.

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UNITED STATES PATENT OFFICE.

GARRETT STEWART BUTTERFIELD, OF SAULT STE. MARIE, ONTARIO, CANADA.

BRUSH.

No. 363,260.

Specification of Letters Patent.

Patented Aug. 13, 1907.

Application filed February 9, 1907. Serial No. 366,615.

To all whom it may concern:

Be it known that I, GARRETT STEWART BUTTERFIELD, a subject of the King of Great Britain, residing in the town of Sault Ste. Marie, in the Province of Ontario, in the Dominion of Canada, have invented certain new and useful Improvements in Brushes, of which the following is a specification.

My invention relates to improvements in brushes and the object of the invention is to provide a magazine brush for shaving and other purposes, which shall be simple to operate and whereby a saving will be effected of the soap or other preparation used, and it consists essentially in the novel construction and arrangement of parts whereby a hollow handle is secured to a bristle base and the said hollow handle forms a receptacle for the preparation used with the brush, the various parts being described in detail in the following specification and shown in the accompanying drawings that form part of the same.

In the drawings, Figure 1 is a perspective view of the brush complete. Fig. 2 is a longitudinal sectional perspective view of the brush. Fig. 3 is a sectional perspective view showing a detail of the bristle base and connecting ring or ferrule. Fig. 4 is a perspective view of a portion of the casing or hollow handle.

Like letters of reference indicate corresponding parts in each figure.

Referring to the drawings, *a* is a casing forming the hollow handle and here shown cylindrical in shape and closed at one end, though it must be understood that it may be made of any shape.

b is an orifice through the closed end of the casing *a* and *c* is an annular bead, projecting outwardly at the open end.

d is a flap valve centrally arranged in the disk *e* covering the inside of the closed end of the casing *a*, the said flap valve *d* being arranged over the orifice *b* and governing the passage of air therethrough.

The casing *a* is preferably made of fairly hard rubber or light spring metal though any material having resilient properties will answer as long as the part compressed will on being released resume its original position.

f is a ring internally threaded and having the inwardly projecting flange *g* encircling the casing *a* at the open end under the bead *c*.

h is a tube preferably of flimsy metal material customarily used for soap and such preparations and containing the soap or other preparation in more or less liquid form. The said tube having a nipple *i* externally threaded.

The tube *h* may contain any of the shaving preparations or a soap preparation, which can be forced through the opening in the nipple by pressure being brought on the tube, or the said casing *a* may contain a prepara-

tion not inclosed in the inner flimsy tube, though this is unlikely in the present invention.

j is the bristle base formed with the band portion *k* gripping the bristles *l*, as customary, and having the external thread *m* corresponding to and turning in the internal thread of the ring *f*, so that the said ring *f* forms the means or ferrule for joining said bristle base to said casing *a*.

n is a central opening in the base having a threaded interior wall corresponding to the threaded nipple *i* of the tube *h* and in which said nipple is inserted. The opening *n* leads into the pipe *o* extending centrally into the bunch of bristles which surround the opening *n*. The pipe *o* preferably forms part with the base and is for the purpose of directing the preparation from the tube *h* into the center of the bunch of bristles.

In the operation of this invention, the casing forming the hollow handle in its open position is slipped over the tube *h* having a suitable preparation therein, the said tube having previously been secured to the bristle base *j* by the nipple *i* screwed into the opening *n*. The tube *h* is of a suitable size to fit snugly in the casing *a*. The base *j* is secured to the handle by screwing the said base into the ring *f* tightly so as to bring the flat bottom of the bristle base to the flat top edge of the casing *a*. It will be thus seen that the casing *a* when secured to the bristle base is made substantially air-tight, except the air orifice *b* controlled by the flap valve *d*, consequently any pressure inwardly on the casing *a* will pneumatically exert pressure on the tube *h* in a similar manner to the displacement operation in an oil can.

The gradual reduction in size of the compressible tube *h* will permit the ingress of more air, drawn through the air orifice *b* on the release of inward pressure on the casing *a*, thus constantly refilling with air the space in the casing formerly occupied by the preparation exuded through the nipple.

The compression of the tube *h* forces the preparation therein contained out of the nipple *i* and on into and through the pipe *o* into the midst of the bristles *l* and as the said bristles in the case of shaving have been dipped in water, the stuff may be applied to the face without further ado.

This form of brush may, of course, be used for other purposes but it is distinctly with a view of supplying a shaving brush that this invention has been made. It is applicable, however, to any form of brush, wherein a liquid or paste form of preparation is used in tube form, though it is more useful for shaving purposes.

What I claim as my invention is:

1. A brush, comprising a hollow handle of resilient material open at one end and having an orifice through the other end, an air valve arranged over said orifice, a bristle base having a central opening therethrough and closing the

open end of said handle, bristles secured in said bristle base and surrounding said central opening, and a compressible tube inserted in said hollow handle and having a nipple secured in said central opening, substantially as described.

5 2. A brush, comprising a hollow handle of resilient material open at one end and having an orifice through the closed end, a valve closing said orifice, a bristle base having a central opening and a pipe extending upwardly therefrom
10 and a threaded interior wall in said central opening, bristles secured in said base and surrounding said pipe and central openings, a compressible tube for containing the preparation used with said brush and having a threaded nipple corresponding to the threaded interior wall of said
15 central opening and secured therein, and a ring forming a ferrule and securing said casing and said bristle base securely together, substantially as described.

20 3. A brush, comprising a hollow handle formed of resilient material open at one end and having an orifice through the other end and an outwardly projecting bead formation

at said open end, an air valve closing said orifice, an internally threaded ring having a flange at one end thereof extending under said bead formation on the handle, a bristle base having a central opening and a pipe extending upwardly therefrom and a thread formed in the inner wall
25 of said central opening and a thread formed on the periphery of the base and joining said handle to the correspondingly threaded ring, bristles surrounding said pipe and central opening and secured in said base, and a compressible tube within said handle for containing preparation used with said brush having a nipple at one end thereof threaded correspondingly and inserted in said central
30 opening in the bristle base, substantially as described.

Signed at the town of Sault Ste. Marie, in the Province of Ontario, in the Dominion of Canada, this eleventh day
35 of December 1906.

GARRETT STEWART BUTTERFIELD.

Witnesses:

LA LA PINE,
KATIE J. DAVIDSON