

Sept. 11, 1934.

H. W. SMALL ET AL

1,973,158

MAGAZINE SHAVING LATHER BRUSH

Filed Dec. 15, 1933

Fig. 3

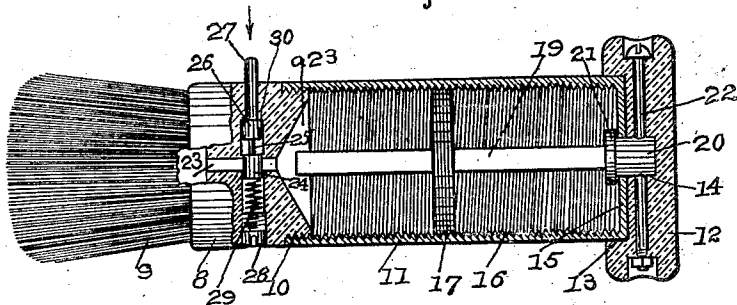


Fig. 4

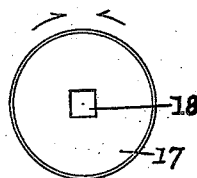


Fig. 1

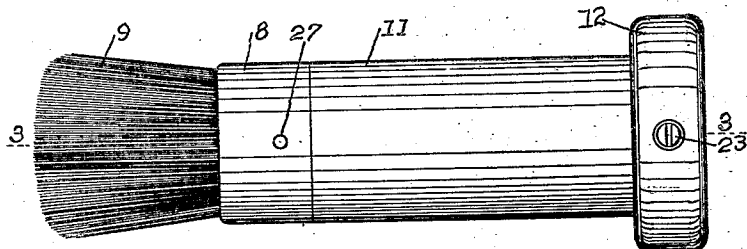


Fig. 2

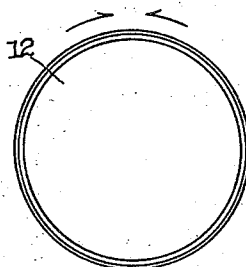


Fig. 6

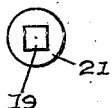


Fig. 5

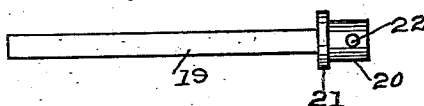


Fig. 7



INVENTORS,
Henry W. Small & Earl K. Everett.
BY David S. Lavin,
ATTORNEY.

UNITED STATES PATENT OFFICE

1,973,158

MAGAZINE SHAVING LATHER BRUSH

Henry W. Small and Earl K. Everett, Sedro
Woolley, Wash.

Application December 15, 1933, Serial No. 702,506

1 Claim. (Cl. 15—137)

Our invention relates to improvements in magazine shaving lather brushes, and has for an object to provide a lather brush with a hollow handle for containing a quantity of shaving soap paste, desired quantities of which may be expelled from the magazine among the bristles of the brush as needed for lather making.

Another object of our improvement is to provide means for automatically closing the soap magazine of the brush as soon as the need for the paste among the brush bristles ceases.

Other objects of our improvement will appear as the description proceeds.

We attain these and other objects of our improvement with the mechanism illustrated in the accompanying sheet of drawings, forming a part of this specification, in which Figure 1 is a plan view of my magazine lather brush, Fig. 2 is an elevation view of the handle end of the brush, Fig. 3 is a cross-section of the magazine brush on the line 3—3 of Fig. 1, Fig. 4 is an end elevation of the screw piston, Fig. 5 is a plan view of the piston rod, Fig. 6 is an end elevation of Fig. 5 and Fig. 7 is an end elevation of the valve push rod.

Similar characters refer to similar parts throughout. Certain parts are broken away to show other parts hidden thereby.

With more particular reference to the designated parts: A bristle brush head 8 has the bristles 9 set therein at one end thereof. On the exterior at the other end of the brush head 8 is the threaded body 10. A hollow cylindrical handle 11, closed at one end 15, open at the other end thereof and threaded the entire length of its interior is fastened to the brush head by the engagement of the said handle thread with the threaded end 10 of the said head. The diameters of the handle cylinder and brush head are preferably equal as illustrated.

A revoluble handle end 12 is mounted for revolution in the bearing recess 13 therein on the closed end 15 of the handle cylinder. Another recess 14 is central to the said bearing recess extending further into the handle end.

A screw piston 17 is mounted for reciprocation by revolution in the handle cylinder 11 with the threaded periphery thereof engaging the interior cylinder thread 16.

A square opening 18 is disposed centrally in the piston 17. A square piston rod 19 is extended through the piston opening 18 engaging therewith for revolution but free to reciprocate therein. The piston rod has an enlarged cylindrical head 20 seated in the handle recess 14 and a

flange or annular boss 21 on the inner end of the head 20 disposed to bear on the inside wall of the cylinder end 15 when the said head 20 is extended through a central opening in the cylinder end which registers with recess 14 when the handle end 12 is mounted on the said cylinder end. The cylindrical piston-rod head 20 has a diametrical opening 22 therein registering with a diametrical opening through the handle end 12 through which is extended the bolt 22. The construction provides for retaining the revoluble handle end 12 in operable position on the cylindrical handle 11 by the bearing of the flange 21 on the interior wall of the cylinder end 15 and the simultaneous revolution of the piston 17 and the handle end 12. Thus, by revolving the handle end 12 the piston 17 is revolved and moved endwise in the handle 11.

A conical recess 23 communicates with a longitudinal central through opening 23 in the brush head 8.

A diametrical through hole in the brush head 8 intersects the said magazine outlet opening 23 and varies in diameter and also is threaded at its larger end to engage the screw 28.

A valve push rod consisting of the push button end 27 of smaller diameter, the guide cylinder 26 of larger diameter, fastened to the push button, the connecting rod 25 of smallest diameter connecting the guide cylinder 26 with the valve 24, and the said valve, is mounted in the said diametrical hole for reciprocation in the brush head with the push button end 27 extended through the smaller part of the hole with its outer end protruding beyond and outside of the brush head. The guide cylinder 26 is disposed in the larger part of the diametrical hole and bears on the shoulder 30, provided by reducing the diameter of the hole, when the push button protrudes outside of the head. The valve 24 also is mounted in the larger part of the hole and is disposed at the intersection of the discharge outlet with the said diametrical hole, when the guide cylinder 26 bears against the shoulder 30, closing the discharge outlet. A spring 29 is mounted in the larger part of the diametrical hole reacting between the valve 24 and the screw 26, tending to retain the guide cylinder in bearing on the shoulder 30.

Manual pressure applied to the push button 27 compresses the spring 29 and disposes the connecting rod 25 across the discharge outlet 23 where, because of its relative smaller diameter, it does not close the outlet nor prevent the free flow of the semi-fluid shaving paste therethrough. When pressure is removed from the push end or

push button 27 the spring 29 reacts to force the valve 24 across the opening 23 and the push end 27 to its outer limit.

In operation: To fill the magazine, the handle 11 is removed from the head 8 by unscrewing and the piston 17 is withdrawn by revolving the handle end 12 backward to drive the piston to a position adjacent the flange 21; then the magazine is filled and again screwed on to the head 8. When lather is desired, the push button 27 is pressed into the head 8 and retained therein while the handle end 12 is revolved forward, driving the piston 17 toward the brush head and expelling some of the shaving paste from the magazine through the outlet 23 and among the bristles 9. Then dip the brush 9 in hot water and apply in the usual way for spreading lather when copious lather will be provided from the brush.

The reaction of the spring 29 is sufficient to force the piston 24 through the paste in the outlet 23 and close the same against the passage of more paste therethrough till the push button 27 is again depressed. The magazine thus is automatically closed on the removal of pressure from the said button.

The handle end 12 is preferably made large with a flat end, as shown, to provide a base on which to stand the device with the brush 9 uppermost when not in use.

Having thus disclosed our invention, what we claim as new therein and desire to secure by Letters Patent is,—

A magazine shaving lather brush including, a bristle-set brush head having intersecting longitudinal and transverse openings and a threaded

end, the said transverse brush-head opening being of reduced diameter at one end and threaded at the other end, a screw engaged in the threaded end of the brush-head transverse opening, a spring mounted in the said transverse opening bearing on the said screw, a piston valve mounted in the transverse opening for reciprocation bearing on the spring, a guide cylinder mounted for reciprocation in the transverse opening disposed to bear on the shoulder provided by the said reduced diameter thereof when at its outer limit of reciprocation, a relatively small connecting rod joining the said piston valve and guide cylinder, the said valve being disposed to close the said brush-head longitudinal opening when the guide cylinder bears on the said shoulder by the reaction of the said spring the said connecting rod being disposed across the longitudinal opening providing for flow of material there-through when the spring is retracted, a push button fastened to the guide cylinder extended through the reduced diameter end of the transverse opening and protruding outside the brush head for retracting the said spring by manual pressure thereon, a hollow cylindrical brush handle having an open threaded end engaged threadwise on the threaded end of the brush head to contain shaving soap paste, a handle enlargement mounted for revolution on the outer end of the hollow cylindrical brush handle, and means to force any paste contents of the said hollow handle into the said longitudinal opening in the brush head by revolving the said handle enlargement.

HENRY W. SMALL.

EARL K. EVERETT.

40

115

45

120

50

125

55

130

60

135

65

140

70

145

75

150