June 23, 1953 A. E. HARTMANN 2,642,608

COMBINED SHAVING BRUSH AND SOAP HOLDER

Filed Sept. 20, 1947

Fig. 1.

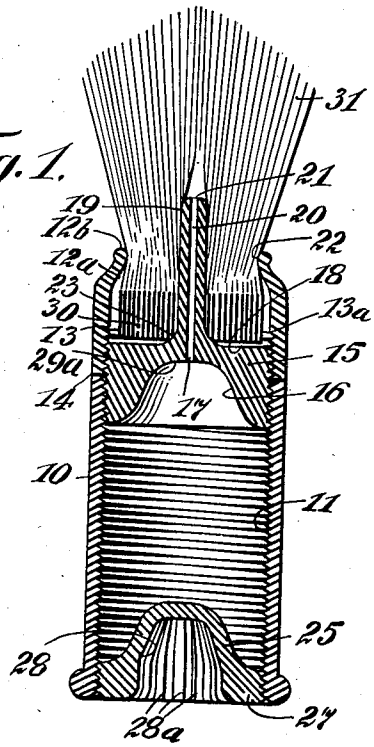


Fig. 2.

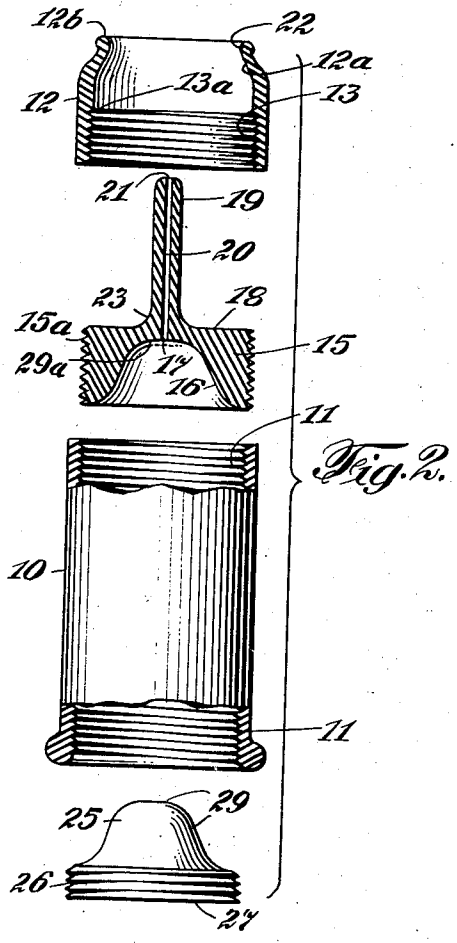


Fig. 3.

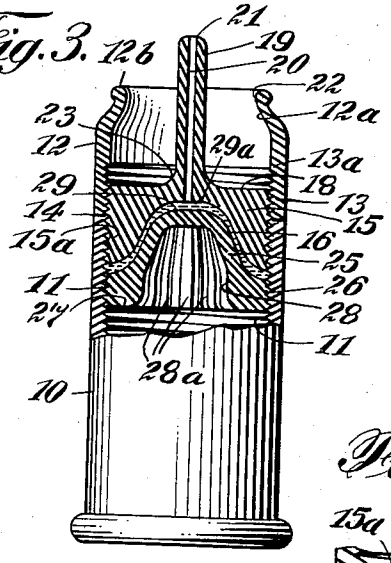


Fig. 4.

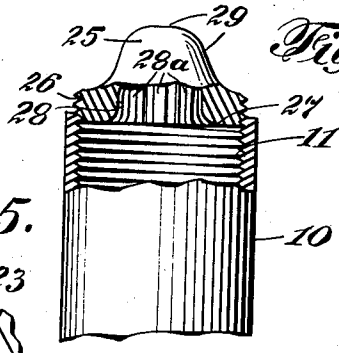
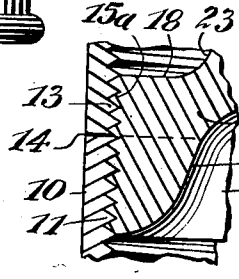


Fig. 5.



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Patented June 23, 1953

2,642,608

UNITED STATES PATENT OFFICE

2,642,608

COMBINED SHAVING BRUSH AND SOAP HOLDER

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Application September 20, 1947, Serial No. 775,195

2 Claims. (Cl. 15—137)

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This invention relates to shaving brushes of the self-feeding type in which the supply of soap is within the brush holder and charges of soap are discharged into the brush when desired to be used in lathering.

Among the objections to those heretofore proposed are, projecting parts; uncertainty in operation; difficulties in re-charging; and multiplicity of parts and complicated character of the same.

The object of this invention is to provide an improved combined shaving brush and soap holder made of a few parts and which may be made of plastic, and which will be simple in construction and operation, at the same time providing means for facilitating the filling, and for completely discharging the soap supply.

The invention consists in a hollow cylindrical body member internally screwthreaded to which a brush holding cap is secured by a combining member, which member presses against the base of the brush to press it in position against the inner part of the cap, the cap having an external diameter equal to that of the body portion and having an internal diameter and internal threads of the same diameter and pitch as those of the body member, with the combining member having external threads along a length of the member, about one half engaging the threads of the cap, and about the other half engaging the threads of the body portion, and with a hollow finger engaging thimble having external threads engaging the internal threads of the body portion, with the internal contour of the thimble and the internal contour of the combining member preferably in conformity, whereby with these four parts, the shaving brush with its hardened base with a central bore is held within the cap with the bristles protruding out of the same. The combining member has a bored nozzle to pass through the bore of the base of the brush. A slight rotation of the thimble discharges a charge of soap from the body portion, through the nozzle into the brush in the central part of the bristles from which it is distributed during the lathering process.

The invention will be further described in connection with an embodiment of the same, as shown in the drawings, and will be finally set forth in the claims.

In the accompanying drawings,

Fig. 1 is a central vertical section of the improved combined brush and soap holder;

Fig. 2 is a spaced view of the parts;

Fig. 3 is a section like Fig. 1 without the brush and showing the thimble at the end of its run;

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Fig. 4 is a detail view showing the body member and the thimble at the end of its run, to show the manner of removing the spindle, and

Fig. 5 is a detail enlarged sectional view to show the manner of combining the body member and the brush holding member, by the combining member, the external and internal surfaces being identical and in alignment with each other.

Referring to the drawings and more particularly to Figs. 1 and 2, the cylindrical body member 10 is preferably smooth at its exterior, and is screwthreaded at its interior, as shown by 11, throughout its interior length. A brush holding member or cap 12 has a smooth exterior, preferably, and is screwthreaded at its interior, as shown by 13, from its open end up to a point 13a. The outer diameter of the body member 10 and the outer diameter of the cap member 12 is identical. The pitch of the interior screwthreads 11 and of 13, are identical.

Within these members 10 and 12 which abut each other at 14, there is a combining member 15, screwthreaded at its exterior to match the common screwthreads of both members 10 and 12, and which combines the members together. This combining member 15 has a soap receiving and guiding interior surface 16 leading to a central bore 17 for the passage of the soap to the brush, at its lower side, and has a substantially flat upper surface 18 for the seating of the hardened end base which holds the bristles together, and also has a nozzle-like extension 19 having a bore 20 in continuation with the bore 17. The length of the nozzle extension 19 is such as to enter the central part of the brush bristles and its discharge end 21 is spaced somewhat above the top end 22 of the brush holding member 12, so as to suitably distribute the soap among the bristles. The cap 12 has a bent in portion 12a against which the base 30 of the bristles 31 may be pressed, and a flaring outward portion 12b, the walls of the opening formed by the flange or bent in portion 12a encompassing the bristles.

The combining member 15 preferably by the curved surface 23 presses upon the bottom hardened portion or base 30 of the bristles 31. As the brush (without the usual handle) is utilized, the bristles have a tendency to spread out laterally from their hardened base, and when these are gathered and compressed, so to say, and released, while being guided through the end opening 22 of the member 12, their expansive force presses against the rim of the opening, and thus holds the brush in position so that often it is

not necessary to press the hardened base entirely against the curved end portion 12*a*.

The lower open end of the body portion 10 is closed by a thimble 25, which has exterior screw-threads 26 to engage the interior screwthreads 11 of the body member 10, and has a base portion 27 preferably radially disposed, with a hollow 28 to enable a thumb or finger to enter and press upon the walls for turning the thimble. Preferably, the interior surface is provided with lands 28*a*. The upper surface 29 of the thimble has a contour in conformity with the inner contour 29*a* of the combining member, so that every portion of the soap between these surfaces may be squeezed into the bore 17, when the thimble is at the end of its working run. The external screw threads 26 of the thimble are identical in pitch with the external screw threads of the combining member 15.

With the brush in position and held by the combining member 15, with about one half of the body member 15 extending outside of the cap member, the body member 10 is screwed on to the projecting end of the combining member so as to take the position shown in Fig. 5. The interior of the body member has been filled with shaving cream or with a cylinder of moldable soap. The thimble is then screwed in to the body member to the extent of having the radial surfaces 27 in the transverse plane passing through the end of the body member as shown in Fig. 1, and a slight turn of the thimble is sufficient to eject from the nozzle the necessary amount of soap or cream for the face lathering. The device is then ready for its next use, when again the only thing necessary is a slight rotative movement of the thimble.

When the thimble 25 reaches the position as shown in Fig. 3, a new supply of soap is necessary. The cap 12 with the brush and with the combining member 15, as an entity, is then separated from the body portion 10, by unscrewing. The thimble 25 is then moved further along the body portion 10 from its position as shown in Fig. 4, until the thimble 25 is entirely separated. The interior of the combining member 15, and its bore 20, as also the interior of the body portion 10 and the exterior of the thimble 25, may then be cleaned, and after the thimble has been re-inserted into the lower open end of the body portion 10, the interior of the body portion is again filled with a supply of soap or cream, and the body member is screwed on to the combining member.

The preferred dimensions, without limitation thereto, are: Length of body member 2½"; outer diameter of body member 1½"; length of brush holding cap 1"; bore of nozzle $\frac{1}{16}$"; outer diameter of the upper end of nozzle $\frac{3}{16}$"; of the lower end ¼"; length of screwthreaded part of combining member ⅝"; height of thimble ¾"; thickness of wall of thimble, body member and cap ⅛"; diameter of bore of thimble hollow $\frac{11}{16}$"; all threads to be 16 per inch. Contents 2.495 cubic inches.

The parts are made of a suitable plastic material.

The brush cap 12 and the soap enclosing body member 10 are designed to permit of easy separation so as to permit the loading of a semi-hard cylinder of soap which could not be accomplished should the soap chamber contain any mechanical units for the purpose of operating the brush. It is preferred to introduce the use of the soap cylinders due to their ready adaptability

but the many forms of soap cream can be used.

The brush chamber 12 is also purposely designed with a view to using the present form of shaving brush knot into which will be introduced a hole of sufficient diameter to receive the spigot or nozzle 19. The brush upon being worn can be easily removed and a new one inserted without destroying any of the four parts of the complete assembly.

The four parts have been designed with a view to having the whole assembly molded of some suitable plastic material without the necessity of introducing any metal parts into the completed product. However, the parts may be made of aluminium or other metal. It is also designed so as to give a maximum of soap capacity without being a cumbersome unit to handle and this is accomplished by keeping the soap chamber free of all internally operated mechanical assemblies.

With the preferred dimensions described, the combined brush and soap holder has a capacity sufficient to permit approximately 60 shaves without re-loading. By actual experiment, it was discovered that the inside of the soap chamber is left absolutely clean of any of the soap as the thimble assembly is worked forward, to the end of its run.

The directing conception is the enclosing of a body of soap by a shell-like structure, in which the brush is held at one end and partitioned from the soap body, and into which brush charges of the soap body may be distributed, with the parts readily separable for cleaning and re-loading, and as readily assembled, all without projecting parts within or without the enclosure.

I have described an embodiment of my invention, but obviously various changes may be made in the details enclosed without departing from the spirit of the invention as set out in the following claims.

I claim:

1. In a combined shaving brush and holder, the combination of a shaving brush having one end of each bristle encased in a hardened base having one end of each bristle encased in a hardened base having a flat surface, a brush holding cap having an internal diameter of generally the outer diameter of said base, and having internal screw-threads at one end, and at the other end an inward flange of less internal diameter than the internal diameter of the screwthreaded end of said cap encompassing the brush bristles extending out of the cap in proximity to said base, and a combining member having an external cylindrical surface with external screwthreads extending the length of said cylindrical surface, the internal screwthreads of said cap engaging a portion of said external screwthreads of said combining member leaving the remainder of said external screwthreads of said combining member unengaged by said internal screwthreads to allow freedom of movement of said cap on said combining member, said combining member having a flat surface abutting against said flat surface of said base and facing said inward flange and spaced from said inward flange to the extent of substantially the height of the base of the brush, said combining member being capable of being screwed into said cap to secure the base of the brush between said flat surface of said combining member and said inward flange, whereby said inward flange of the cap is adapted to press against said base, and said base against said surface, to hold the brush from turning and to provide a seal against entrance of water, and on

the separation of said combining member from said cap, a new brush may be substituted.

2. The structure of claim 1, in which said cap at its screwthreaded end has a cylindrical exterior, and a terminal end, and said combining member having a bored central nozzle passing through said base, combined with a soap holder of cylindrical shape having its outer diameter equal to the outer diameter of said cylindrical exterior of said cap and having a terminal end abutting against said terminal end of said cap, and having interior screwthreads engaging the screwthreads of said combining member not engaged by said cap screwthreads, said screwthreads of said soap holder extending along the length of said soap holder, and means within the soap holder having exterior screwthreads engaging the interior screwthreads of said soap holder, which means are adapted to move inwardly of said soap holder and press any soap in said soap holder into and through said bored nozzle.

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