

# UNITED STATES PATENT OFFICE

2,298,019

## SHAVING CREAM

Latimer D. Myers, Cincinnati, Ohio, assignor to Emery Industries, Inc., Cincinnati, Ohio, a corporation of Ohio

No Drawing. Application December 1, 1938, Serial No. 243,421

5 Claims. (Cl. 252-122)

This invention relates to improvements in soaps or creams which are intended to produce a lather appropriate for shaving.

One of the purposes of shaving soaps or creams is to produce a lather or foam which is more suitable for shaving than are ordinary soap lathers. This lather must be abundant, very fine, creamy, and firm. It must not be watery, yet it must be easily soluble and able to hold a large enough quantity of water to permit it to remain moist for an appreciable length of time.

As for the cream or soap, itself, it must not become rancid or change in color when it is stored for a long period of time, and it should carry a gloss, commonly termed "sheen," which gives it a pearly and glistening appearance. Most important, this cream must not be harmful or irritating to the skin.

The ordinary shaving soaps used in the past are composed of a blend of commercial stearic acid soap and coconut oil soap, and a small quantity of free stearic acid. When creams are desired, glycerine and water are added. Since stearic acid soap produces a stiff, heavy lather, but is differently soluble, while coconut oil soap produces a very soft and abundant lather and is readily soluble, the combination of the two soaps dissolves readily and makes a lather of the proper consistency. The free stearic acid prevents excess alkalinity and produces the desirable sheen. The purpose of glycerine in a shaving cream is to soften the cream further to improve water solubility and to facilitate its extrusion from the tube—the customary packaging vehicle. The following is the average formula for such a cream:

	Per cent
Stearic acid soap-----	32
Coconut oil soap-----	13
Glycerine-----	17
Free stearic acid-----	3
Water-----	35
	100

All of these shaving soaps used at present contain coconut oil. Since coconut oil causes a burning, biting sensation, thus irritating many types of skin, its use has been one of the greatest disadvantages of shaving soaps or creams.

An objective of the present inventor has been to produce a shaving soap or cream which is free from coconut oil soap or similar irritating soaps and yet which is capable of producing the type of lather described in the preceding paragraphs.

Another objective of the present inventor is to product a shaving soap or cream, possessing the desired characteristics, which will be stable in relation to the deteriorating effects of ageing.

The present inventor has found that by using a major part of palmitic acid soap and a minor part of stearic acid soap and entirely omitting the coconut oil soap or similar soaps, a soap which produces the desired lather is obtained. The term, "major part of palmitic acid soap" means that the proportion of palmitic acid is substantially in excess of the eutectic proportion ordinarily found in commercial stearic acid.

It is advisable that the ratio of the palmitic acid be not too high in order to obtain the maximum rate of lathering. The preferred ratio of palmitic to stearic acid soaps is 60 to 80 parts palmitic acid soap to 40 to 20 parts stearic acid soap. A 70:30 ratio represents the mixture, composed of these two soaps, which I consider most desirable for shaving soaps and creams.

The use of a 70:30 mixture of saponified, palmitic and stearic acids, instead of a saponified mixture of commercial stearic acid and coconut oil, is advantageous in other ways. The lather of the soap, in which this ratio of acids is found, is fine and creamy and contains more water than do ordinary lathers; thus it does not dry out on the face as rapidly as do coarse lathers. Moreover, a suitable consistency of the cream as manufactured can be maintained even though less glycerin and more water be used than are used in the present practice in making shaving creams, without danger of disassociation. The economy, in large-scale manufacture, of substituting water for glycerin is substantial. In order to prevent age from causing discoloration and rancidity, the soap or cream should be relatively free from unsaturated fatty acids.

The following is a suitable formula for a shaving cream which contains the preferred stearic-palmitic ratio:

	Per cent
Stearic-palmitic soap-----	45
Glycerin-----	10
Water-----	45

The soap may be potash soap, but a mixture of potash and soda soaps, 5 to 10 parts of potash soap to 1 part of soda soap, is preferable, because the consistency of this mixture remains relatively uniform regardless of temperature variations. Also if desirable, small amounts of the stearic palmitic acid may be left unsaponified to improve the "sheen."

The soap of the present invention can be manufactured either as a soap or, preferably, as a cream. If it is manufactured as a soap, it is moulded into a shaving stick and packaged appropriately. If it is manufactured as a cream, it is softened with glycerin and water and packed in tubes.

Experimentation has proved that the soap or cream containing the specified palmitic-stearic mixture, glycerin, and water, as disclosed in this specification, produces a finer, richer lather, is more readily water soluble, and is capable of holding more water than are previously known coconut oil shaving soaps and creams, and, most important, it is absolutely harmless and non-irritating to the skin.

Having described my invention, I claim:

1. A shaving composition containing soap of the class of sodium and potassium soap, which soap consists of substantially 60% to 80% by weight of saponified palmitic acid and 40% to 20% by weight of saponified stearic acid, the said shaving composition being devoid of coconut oil soaps, and being characterized by its latherability and by the stability of the lather produced from it.

2. A shaving composition containing soap of the class consisting of sodium and potassium soaps, the said soap portion comprising, substantially 60% to 80% by weight of saponified palmitic acid and 40% to 20% by weight of saponified stearic acid, the said composition additionally containing glycerin, and water in quantity substantially equal to the soap content.

3. A shaving composition, the saponaceous portion of which comprises substantially 60% to 80% by weight of saponified palmitic acid and 40% to 20% by weight of a saponified stearic acid, said saponified palmitic acid and saponified stearic acid being soaps of the class consisting of sodium and potassium soaps, with from approximately 5 to 10 parts by weight of potassium soap being present in said saponaceous portion to each one part by weight of sodium soap.

4. A shaving cream, the saponaceous portion of which comprises substantially 60% to 80% by weight of saponified palmitic acid and 40% to 20% by weight of saponified stearic acid, the said saponified palmitic and saponified stearic acids being soaps of the class consisting of sodium and potassium soaps, with the potassium soap constituting from 5 to 10 parts by weight of the saponaceous portion to each one part by weight of sodium soap, the said shaving cream additionally comprising glycerin and water.

5. A shaving cream comprising approximately 45% by weight of soap, 45% by weight of water, and 10% by weight of glycerin, the said soap being a soap of the class consisting of sodium and potassium soaps and being made up of saponified stearic acid and saponified palmitic acid, with 5 to 10 parts by weight of potassium soap being present in the soap component to each one part of sodium soap, and with 70% of the soap being palmitic acid soap and 30% being stearic acid soap.

LATIMER D. MYERS.