

UNITED STATES PATENT OFFICE

2,145,583

ANTISUDORIFIC DEODORIZING SHAVING CREAM

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Serial No. 756,279

6 Claims. (Cl. 167—90)

This invention relates to a shaving cream having antisudorific properties which tends to stop and deodorize perspiration, and providing an underarm shaving cream. The product is designed to permit the application of the same in the arm pits and to allow shaving at once without irritation to the skin, while also providing the property of stopping and deodorizing perspiration. Heretofore cream deodorants and shaving creams have been used separately, but insofar as I am aware an antisudorific has not previously been used in cream form. Where antisudorific or astringents have been used heretofore in the arm pits, it has been recommended that they be not used until approximately a day after shaving under the arms, owing to the possible irritating effect.

My product may be used as an antisudorific and deodorant after shaving or at any time and will stop perspiration and perspiration odor for a period of time without need of using other deodorants or antisudorifics. My antisudorific deodorant shaving cream acts as a vehicle to spread the astringents more thoroughly and evenly over the surface of the axilla and dries as a vanishing cream, thereby aiding in retaining the astringents on the skin to prevent perspiration for a longer period. This advantage makes it possible to use astringents as antisudorifics which are milder and harmless to clothing in place of aluminum chloride heretofore commonly used. The cream counteracts irritating effects which might otherwise result.

To insure a smooth and stable product like I have provided in my shaving cream, special and unusual precautions must be taken to combine the emulsions of solids in solutions of astringent styptic compounds of acid character. In general, my method consists in producing a water emulsion of fatty or unctuous materials having a minimum of soluble soaps capable of producing insoluble soaps and preferably of such character as to be readily hydrated, using stabilizing protective colloids or emulsifying agents capable of functioning in the presence of astringent styptic compounds, then adding such astringents or styptics in considerable amounts so that the mixture will be effective in checking perspiration, adding additional deodorants and perfumes as desired and mixing very intimately to produce a smooth textured cream, heavy enough to not drip from the finger tips and suitable for the purpose set forth. The consistency may be heavy enough to mold a stick capable of being dispersed to a soft cream when rubbed upon the skin with a little water. The cream must be capable of forming a dry, nearly invisible film upon the skin after application. Other deodorants such as benzoic, salicylic and boric acids and their compounds, phenols, formaldehyde and other anti-

septics may be added to reinforce the deodorant effect of the astringents. As astringents I may use soluble aluminum, zinc, bismuth and tin and similar normal, basic and acid salts which have astringent properties, are non-staining and not toxic. The acid radicals may be inorganic, organic or compound organic-inorganic as ethyl sulphuric, glyceryl phosphoric, with the same or several different radicals combined with the metal. Double salts may contain alkali sulphates or other metal salts or salts of organic bases. Various complex compounds such as the precipitate produced by adding astringent salts to a solution of alkali starch, may be used.

I do not claim as new single compounds of creamy consistency in water and having antisudorific properties excepting that the combinations of fatty bases with aluminum sulphate may be considered to be basic alums and these I believe are novel. Thus two equivalents of ethanolamine plus one equivalent of aluminum sulphate gives a white cream with water. Zinc sulphate forms a similar complex as do other astringent salts.

As an example of carrying out my method, the following formulas may be used in providing a shaving cream with antisudorific properties and having the necessary deodorizing properties for the purpose desired, but I do not wish to confine myself to these particular formulas because insofar as I know, no shaving cream has been provided heretofore having the necessary deodorizing property and also the property of providing the necessary antisudorific effect. The first of said methods consists in melting eight parts of stearic and palmitic acids, ten parts of waxes, and purified hard fats or other fatty materials, two parts of aluminum, magnesium or zinc stearate, one part ceresin or petrolatum, and pouring this melted fatty material into eighty parts of boiling water containing two-thirds part of gum tragacanth or similar mucilaginous colloid, and one part of white clay, both thoroughly dispersed. Next add one-half part of caustic potash dissolved in about ten parts of hot water, heat and mix well, remove heat and continue mixing until cold. When this mixture is well cooled, add twenty-five parts of aluminum chloride crystals, gradually shifting in while stirring the cream, and finally stir in one-fourth part of artificial rose oil. The proportions may be varied and the clay may be omitted and other soluble salts of aluminum or other astringent compounds may be substituted for the chloride of aluminum. Hydrates of the metals may be caused to precipitate under the proper conditions to act as stabilizing colloids.

My cream may also be made in the following manner: Disperse five to ten parts of purified bentonite, aluminum silicate and aluminum

hydrate in forty parts of water with proper precautions to avoid grit or lumps, heat and pour in one or two parts of gum mastic or similar gum melted with thirty parts of spermaceti, white beeswax and other waxes and fats, stir, adding
 5 one part of ammonia water and stir while cooling until a thick emulsion results. When cooled add one part of alcohol and then ten parts of zinc sulphate or other zinc salts dissolved in about
 10 twenty parts of water. One-half part hydrastine hydrochloride may also be added. The cream must be thoroughly mixed or ground until smooth and perfume oils may be added.

A third formula which comes under my general
 15 method can be made somewhat as follows: Take twenty parts of soda alum or other astringent salts, twenty parts neutral salts of sulphonated fatty alcohols, cetyl alcohol or any other of ten carbon atoms or more, and six parts of lard or
 20 other soft fatty material. These ingredients are stirred in fifty-four parts of cold water until a smooth cream results, or else less water is used and the heavy paste is heated and molded into sticks which will produce a cream when rubbed
 25 on the wet skin. One part of bentonite or white clay or similar material may be added to four parts of the thickened mixture to improve the molding of sticks.

An additional formula which may be used by
 30 which a smooth white inorganic cream having no organic matter whatsoever therein may be formed. This cream is produced by dispersing about ten percent of purified powdered bentonite in ninety percent of water, adding five to twenty
 35 percent bismuth subnitrate or other opaque white slightly soluble astringents thereto, and grinding fine to remove all grit. Twenty percent of twenty percent solution of tin chloride or other tin salts may be added.

My cream may also be made under the following formula: Ten to twenty parts of water insoluble hard soaps such as zinc stearate with about fifty parts of water, aided by a little alkaline material, and with a dispersing protective
 45 colloid such as quince seed extract or other organic colloid, or about five parts of bentonite or other hydrated silicates or insoluble hydroxides which are capable of acting as dispersing agents, are mixed or ground together. Talc or other insoluble
 50 powders may be added and an astringent compound is added to give the desired antisudorific effect, using one to ten parts of zinc sulphate or other astringents. The film of cream is rather opaque and this may be made more transparent
 55 and unctuous by adding five to thirty-five parts of polyhydroxy alcohols or their esters or similar syrupy materials, especially useful being carbohydrate alcohol borates, glycerol borate, glycerol benzoate and other similar compounds which act
 60 as deodorants also.

In summarizing the invention, the various terms, in the absence of any identifying language, should be construed in the claims as being selected from the following groups of elements.

The term "cream" in the claims should be
 65 construed as one selected from the following examples in the absence of statements describing the cream. They are ordinarily of the shaving cream type but contain a minimum of soluble
 70 soaps capable of forming insoluble soaps (with the astringent metallic salts) and are preferably composed of materials which are readily hydrated and dry as a vanishing cream.

I. Stearic and palmitic acids, waxes, magnesium or zinc stearate, ceresin or petrolatum.

II. Bentonite, aluminum silicate and aluminum hydrate, water, spermaceti, wax, and ammonia water.

III. Insoluble hard soaps such as zinc stearate, water, a little alkali material, and bentonite or
 5 other hydrated silicates or insoluble hydroxides.

IV. The esters of polyhydroxy alcohols.

By the term "powerfully astringent metal salts" when used in the claims and in the absence of specific indication to a particular type, is meant
 10 a material selected from the following: soluble salts of aluminum, zinc, bismuth, and tin and similar normal basic and acid salts which have strong astringent properties, are non-staining and not toxic. The acid radicals may be inorganic, organic, or compound inorganic-organic
 15 as ethyl sulphuric, glycerol, phosphoric and with the same or different radicals combined with the metal. Double salts may contain alkali sulphates or other metal salts or salts of organic bases. Varicous complex compounds such as the precipitate produced by adding astringent metallic salts
 20 to a solution of alkali starch may be used. Zinc and aluminum sulphates, aluminum chloride crystals and other soluble salts of aluminum may be used. Zinc sulphate or other water soluble zinc salts may be used. Soda alum, tin chloride or other water soluble tin salts are among the powerfully astringent metallic salts which
 25 may be used.

In the use of the term "protective colloid" I contemplate the use of gum tragacanth or similar mucilaginous colloid, or a similar gum or
 30 quince seed extract or similar mucilaginous colloid. Hydrates of the metals may be caused to precipitate under proper conditions to act as stabilizing colloids.

In accordance with the patent statutes, I have described my new method, and have embodied various formulas which should come within this
 40 method, and while I have endeavored to set forth the best embodiment thereof, I desire to have it understood that obvious changes could be made, within the scope of the following claims, without departing from the spirit of my invention.

I claim:

1. A process for forming a deodorizing and antisudorific cream consisting in thoroughly mixing together stearic and palmitic acids, waxes and fats, aluminum stearate, boiling water, water
 50 soluble gum, then adding alkali mixed with water, then heating and mixing, and when cool gradually adding powdered aluminum chloride crystals while stirring, thereby avoiding coagulation of the cream.

2. An antisudorific cream comprising a cream base, a powerfully astringent metallic salt mixed intimately therein, and a protective colloid to prevent the astringent salt from breaking down the cream base.

3. An antisudorific cream including stearic and palmitic acids, waxes, water, a water soluble gum, an alkali, and a powerfully astringent metallic salt.

4. An antisudorific cream including bentonite, aluminum silicate, aluminum hydrate, a water soluble gum, wax, and a powerfully astringent water soluble zinc salt.

5. An antisudorific cream including a powerfully astringent metallic salt, neutral salts of sulphonated fatty alcohol, and fat.

6. An antisudorific cream including a powerfully astringent metallic salt, a sulphonated fatty alcohol of ten carbon atoms or more, and fat.

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