

UNITED STATES PATENT OFFICE.

ANTON STÖHR, OF HARTHAU, CHEMNITZ, GERMANY.

PROCESS FOR THE MANUFACTURE OF FLOATING SOAP.

No. 883,360.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ANTON STÖHR, a subject of the Emperor of Germany, and a resident of Hartau, Chemnitz, Germany, have invented a new and useful Process for the Manufacture of Floating Soap, of which the following is a specification.

This invention relates to a process for the manufacture of floating soap which has no internal hollows and is capable of being readily molded.

Heretofore, floating soap has been produced by forming each cake or piece of soap with an internal hollow space containing a light substance such as cork, wood, papier-mâché or lather of glycerin-soap. Floating soap has also been produced from refrigerated soap-lather, but such soap cannot be molded by reason of its innumerable and comparatively large pores or cavities, and is difficult to manufacture in convenient shapes for ordinary use.

The improved process is as follows:

One part by weight of pulverized resin is placed in a shallow vessel over a slow fire to melt. Or wax and similar substances may be used for the purpose. When the resin has become fluid and begins to froth, it is removed from the fire and quickly and continuously stirred up with an equal part by weight of caustic soda solution of 42 degrees Baumé which has been previously heated to about 144 degrees Fahrenheit and is introduced in the liquid resin as a fine jet. The mixture is stirred till the saponified resin becomes crumbly and feels sandy to the touch.

This prepared substance forms the chief ingredient for and is the base in the manufacture of this floating soap. Meanwhile, 3 parts by weight of cocoanut oil are heated to 178 degrees F. to which is then added an equal weight of caustic soda solution of 36 degrees B. previously heated to about 144 degrees F., it being introduced in the form of a fine jet by constantly stirring until saponification. The saponified resin mixture is then slowly and gradually added to the hot soap paste under constant stirring over a slow fire till the saponified resin is entirely dissolved and the intimate admixture of the ingredients insured. If during the admixture of the saponified resin, or while stirring, the soapy material shows a tendency to dis-

integrate, or forms a crust, it will be necessary to introduce a fine jet of water until the mass again combines to a thick consistency. This mass is kept boiling and slowly stirred for an hour and then removed into shallow vessels placed in a cool chamber to stand for twelve hours. As the said mass solidifies it forms a thin resinous cake or layer at the upper surface. The hardened contents of the vessels are cut out therefrom and the yellowish thin resinous cake is separated from the lower brown portion, then cut into strips and dried in a warm room at a temperature of 65 degrees F. After a lapse of twenty four hours the resinous cake can be used for making floating soap, although it is preferable to employ the said material in a more matured condition.

The preparation of the resinous cake from the said crumbly sandy-like mass forms a necessary and important step in the process of manufacture of this floating soap because in that condition it permits of its subsequent intimate admixture to ordinary soap liquor or paste. The effect of this is that the resinous-oleaginous ingredients swell and so cause the soap to float.

For the final manufacture of floating soap by the aid of the aforesaid ingredients, the resinous cake is cut into pieces placed in a vessel over a slow fire and gently stirred till it assumes a thick consistency and has the tendency to boil. This is then slowly mixed with the hot soap liquor and continuously stirred over a gentle fire until the mixture becomes intimately bound together.

A good floating soap capable of being molded even after eight or ten days, is manufactured of the following ingredients: Equal parts or 50% of cocoanut oil and animal fat to form one part by weight; caustic soda solution 36° B. heated to 145 degrees F., 1 part by weight; saponified resinous cake, 1 part by weight.

If desired, an appropriate quantity of isinglass can be added to the soap. Further the process also permits of the manufacture of household soap and toilet soaps in a similar manner.

The steps in the process may be varied without affecting the final result, the essential feature being the manner of saponification of the ingredients.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

The process of manufacturing moldable floating soap, which consists in first melting resin over a slow fire, then removing and stirring the same, then adding to it a fine jet of caustic soda solution of 42 degrees B. previously heated to 144 F. and stirring till the saponified resin becomes crumbly and sandy, then adding same to saponified cocoanut-oil and stirring over a slow fire to boil for an

hour, then removing into shallow vessels in a cool chamber, and finally removing the resinous top portion and mixing same with hot soap-paste, as stated.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ANTON STÖHR.

Witnesses:

FRANZ ZIMMERMANN,
ERNST C. MEYER.