

PATENT SPECIFICATION

NO DRAWINGS

28 NOV. 1962

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Date of Application and filing Complete Specification Jan. 6, 1960.

No. 431/60.

Complete Specification Published May 23, 1962.

Index at acceptance:—Class 49, B1(C:H).

International Classification:—A23d, I.

COMPLETE SPECIFICATION

Food Products

I, JOHN FRANCIS ANDERSON, a British subject, of 3, Old Broad Street, London, E.C.2, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention consists in a method of preparing a product resembling sweetened condensed milk by blending skimmed milk powder with sugar, water and fat, comprising blending a portion of the skimmed milk powder with hot water, then homogenising the fat with the mixture so formed, after which the sugar and the remainder of the skimmed milk powder are added under conditions of violent agitation.

The product may be flash pasteurised and then cooled rapidly. To promote and control sugar crystallisation, a minor proportion of a like, previously blended product may be incorporated.

A water dispersible vitamin A preparation may be added in addition to the minor proportion of product from a previous batch, after the blended material has been flash pasteurised and cooled.

Normally, the sugar used in the method of this invention will be sucrose, but other sugars may be used if preferred.

The following example shows how the invention may be carried into effect:—

A refined vegetable fat, skim milk powder, refined sugar and water are mixed together to give a final product of approximate composition:—

Cap.	9% fat
Cap.	22% milk solids-hot-fat
Cap.	45% sucrose
Cap.	24% water

A portion of the skim milk powder is first mixed with hot water with the aid of a high

[Price 4s. 6d.]

speed mixer, then the vegetable fat is added to the mixture and the temperature raised to 100° F. for homogenisation at 1500 lbs. per square inch. The sugar and the remainder of the skim milk powder is then added to this mixture under violent agitation. The whole mixture is then flash pasteurised at 180° F. and then cooled quickly to 86° F. At this temperature a small amount of final product from a previous batch is added, to promote and control sugar crystallisation.

Vitamin A, in the form of water dispersible palmitate beadlets, is added at the same time as seeding. The final content of vitamin A will be in the region of 4,060,000 I.U. per gallon batch or 200 I.U. per oz.

The product is held at 86° F. with continuous agitation for one hour, and then cooled to 80° F. and held at this temperature for 60 minutes prior to filling in 14 oz. cans.

A feature of this invention is that a choice is afforded in respect of the nature of the fat employed. In particular, whilst pure butter oil can be used to yield a condensed sweetened milk conforming to the food regulations for milk products in various countries, other fats for example vegetable fats can be substituted, wholly or in part, to provide milk-like products. It will be understood that the expression "fat" is used as signifying not only fatty solids including hydrogenated natural fatty oils, but also fatty oils themselves.

In general, it is preferred that the ingredients should be in the following proportions in the final product:—

Fat from 8—10%,
Milk solids-hot-fat from 20—23%
Sucrose from 42—48%
Water from 21—26%.

WHAT I CLAIM IS:—

1. A method of preparing a product resem-

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A water dispersible vitamin A preparation may be added in addition to the minor proportion of product from a previous batch, after the blended material has been flash pasteurised and cooled.

Normally, the sugar used in the method of this invention will be sucrose, but other sugars may be used if preferred.

The following example shows how the invention may be carried into effect:—

A refined vegetable fat, skim milk powder, refined sugar and water are mixed together to give a final product of approximate composition:—

9% fat
22% milk solids-not-fat
45% sucrose
24% water

A portion of the skim milk powder is first mixed with hot water with the aid of a high

[Price 4s. 6d.]

speed mixer, then the vegetable fat is added to the mixture and the temperature raised to 100° F. for homogenisation at 1500 lbs. per square inch. The sugar and the remainder of the skim milk powder is then added to this mixture under violent agitation. The whole mixture is then flash pasteurised at 180° F. and then cooled quickly to 86° F. At this temperature a small amount of final product from a previous batch is added, to promote and control sugar crystallisation.

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In general, it is preferred that the ingredients should be in the following proportions in the final product:—

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WHAT I CLAIM IS:—

1. A method of preparing a product resem-





*Registered Patent Agents.
Agents for the Applicant(s)*

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- bling sweetened condensed milk by blending skimmed milk powder with sugar, water and fat, comprising blending a portion of the skimmed milk powder with hot water, then
- 5 homogenising the fat with the mixture so formed, after which the sugar and the remainder of the skimmed milk powder are added under conditions of violent agitation.
- 10 2. A method according to Claim 1 in which the sugar is sucrose.
3. A method according to either Claim 1 or Claim 2 in which a minor proportion of a like, previously blended product is incorporated.
- 15 4. A method according to any of the preceding claims in which the blended product is flash pasteurised and then cooled rapidly.
5. A method according to both Claim 3 and

Claim 4 in which a water dispersible vitamin A preparation is added in addition to the minor proportion of product from a previous batch, after the blended material has been flash pasteurised and cooled.

6. A method according to any of the preceding claims in which said fat is substantially pure butter oil.

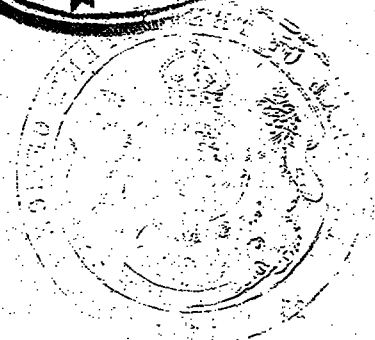
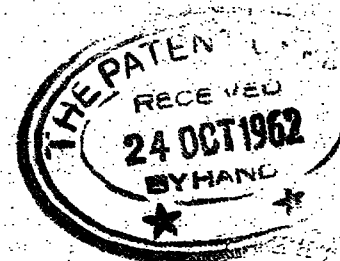
7. A method according to any of Claims 1-5 in which said fat comprises vegetable fat.

8. A method according to Claim 1 and substantially as described in the foregoing example.

9. A product resembling sweetened condensed milk when prepared by the method as set forth in any of the preceding claims.

MARKS & CLERK.

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