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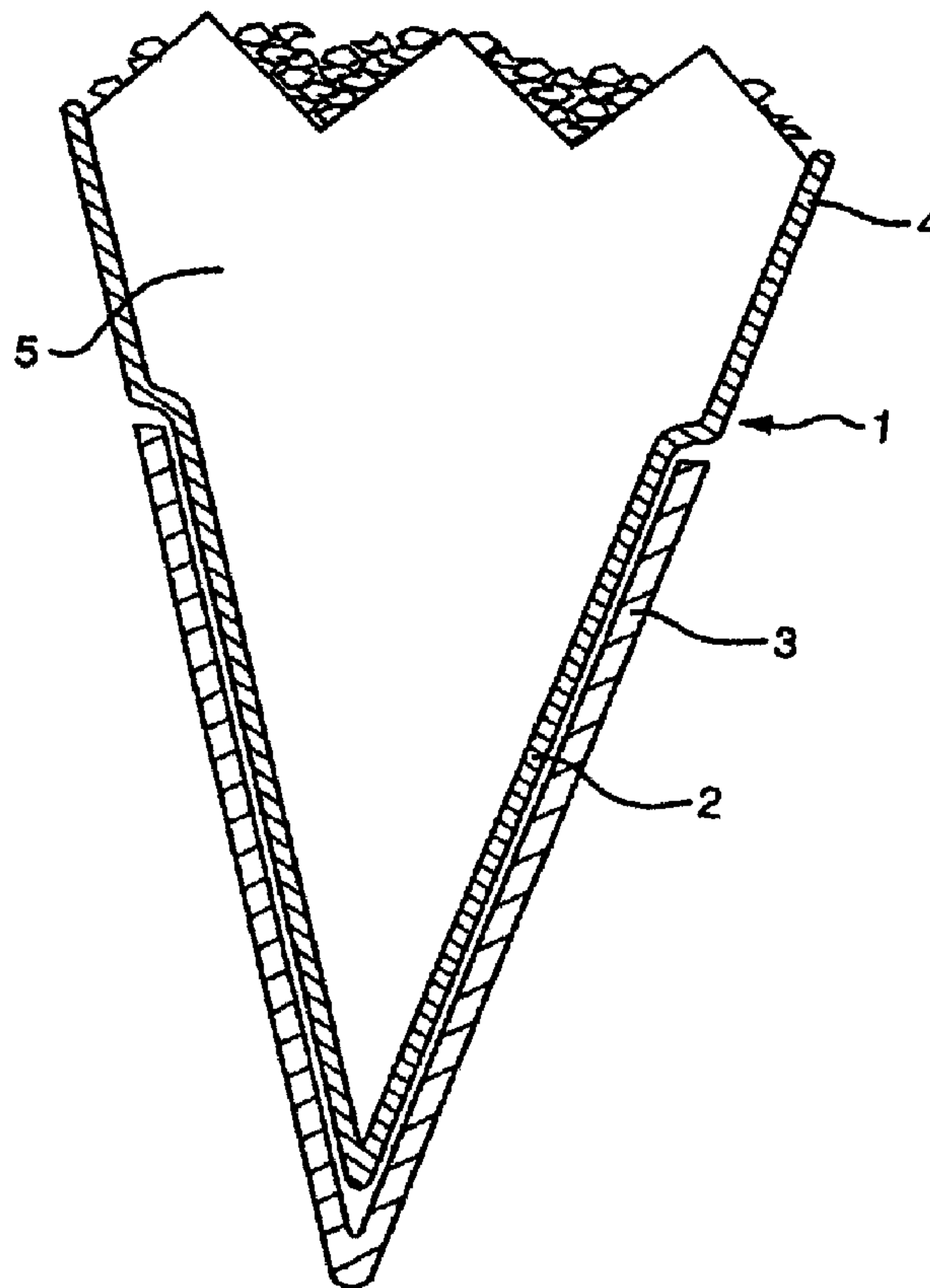
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(54) Titre : PROCEDE POUR LA CONFECTION DE CREMES GLACEES EN CORNET ET PRODUIT CONNEXE

(54) Title: PROCESS FOR THE PRODUCTION OF ICE-CREAMS IN CONE AND RELEVANT PRODUCT



(57) **Abrégé/Abstract:**

The invention concerns a process for the production of ice-creams in cone provided with a covering layer and a wafer, in which the covering layer interests all the height of the cone while the wafer has a less height. In particular the process foresees to realize a chocolate shell filled with frozen product and to insert it subsequently into a wafer.

S U M M A R Y

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In particular the process foresees to realize a chocolate shell filled with frozen product and to insert it subsequently into a wafer.

"PROCESS FOR THE PRODUCTION OF ICE-CREAMS IN CONE AND
RELEVANT PRODUCT"

DESCRIPTION

This invention proposes a process for the production of an ice-cream in which the product is contained inside a chocolate shell inserted in its turn into a wafer and in which this chocolate shell extends call along the inside
10 surface of the wafer and projects for a certain portion upwardly beyond the wafer.

The process according to the invention foresees:

- formation of an ice cream cone already provided with a covering layer;
- insertion of the cone into a wafer; and
- wrapping, in any, of the product obtained in this way.

More precisely, the process according to the invention is a process for the production of ice-creams in cone, comprising the following steps:

- 20 - formation of an ice-cream cone provided with a covering which comprises the steps of:
 - production of a shell made of chocolate or other appropriate product, said shell extending all along the height of the cone;
 - dosage of the product inside said shell;
- subsequent freezing of the product until its solidification;
- insertion of the cone already provided with a covering into a wafer; and
- 30 - insertion of a wrapping, if any, on the wafer.

The invention concerns also the product obtained with this process.

The problem that the invention proposes to solve is to preserve the quality of the wafer which, in ice-creams produced with the traditional methods, often becomes damp, losing in this way its fragrance.

As it is known, among the different types of industrial ice-cream, a remarkable diffusion was reached by the ice-creams "in cone", in which the product is contained inside a wafer generally having a conic shape,
10 contained into a paper envelope to which a closing lid is applied upwardly.

The production technology foresees the dosage of the liquid product inside the wafer, which becomes wet and loses therefore the characteristics of freshness and fragrance. For this reason, at the present state of the technique, systems were developed which spray a melted chocolate layer in the inner portion of the wafer, so as to realize a covering able to impermeabilize the wafer and avoid that
20 the dampness of the product transfers to the wafer.

The present processes introduce in the machine the wafer to which the final paper covering has been already applied and then spray the melted chocolate also in correspondence with the paper section where the wafer ends, in order to realize a kind of bridge between the paper and the wafer able to prevent the dampness from reaching the wafer. This known system solves only partially the problem, both because rather often this covering is not in anyway efficacious and it can be found in a rather high percentage of products
30 wherein the dampness succeeds in passing into the wafer, and because some types of chocolate can not be sprayed and

therefore the covering choice is limited and requires the exclusion of chocolates of a certain high quality.

Another problem which is found with the known processes, comes from the fact that, as the product is dosed inside the wrapping shortly before the closure, it is not yet well frozen when the lid is applied; it takes place in this way that the decoration applied later or the chopped almonds which are dosed on the ice-cream surface are smoothed during the lid positioning, with the chopped almonds which
10 are pushed inside the ice-cream not yet frozen and/or decoration which is scattered and/or deformed.

To solve this problem, this invention proposes a process which foresees the production of an ice-cream cone covered with chocolate and the following insertion of the ice-cream into the wafer already provided with covering, after the freezing.

Accordingly, the present invention discloses a method of making a composite ice-cream cone comprising:

preforming a closed-bottomed wafer shell having an inner
20 surface, a length, an outer surface, and an upper edge;

preforming a separate, closed-bottomed chocolate shell having a lower portion and an upper portion;

insertedly nesting said lower portion of said chocolate shell into said wafer shell with said lower portion having a form complementary to the inner surface of said wafer shell such that said lower portion extends over both the entire inner surface of said wafer shell and the length of said wafer shell; and

before or after the nesting step, filling and freezing a
30 product into both said lower and upper portions of said chocolate shell;

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said upper portion of said separate frozen product filled chocolate shell extending above the upper edge of said wafer shell;

said upper portion of said separate frozen product filled chocolate shell having a greater diameter than said lower portion such that the upper portion is in line with the outer surface of said wafer shell.

Further the chocolate shell can be higher than the wafer, extending to all the outer surface of the product, which is
10 then finished by applying the decoration and/or the dosage of the chopped almonds after its solidification, without the risk of deformations when the closing lid of the wrapping applied.

Furthermore, the present invention also proposes a composite ice-cream cone comprising: a preformed, closed-bottomed wafer shell having an inner surface, a length, an outer surface, and an upper edge; a separate, preformed, closed-bottomed chocolate shell having a lower portion and an upper portion; and a filling of a frozen product
20 contained in both said lower and upper portions of said chocolate shell; said lower portion of said separate frozen product filled chocolate shell being insertedly nested within said wafer shell with said lower portion having a form complimentary to the inner surface of said wafer shell such that said lower portion extends over both the entire inner surface of said wafer shell and the length of said wafer shell; said upper portion of said separate frozen product filled chocolate shell extending above the upper edge of said wafer shell; said upper portion of said
30 separate frozen product filled chocolate shell having a greater diameter than said lower portion such that the

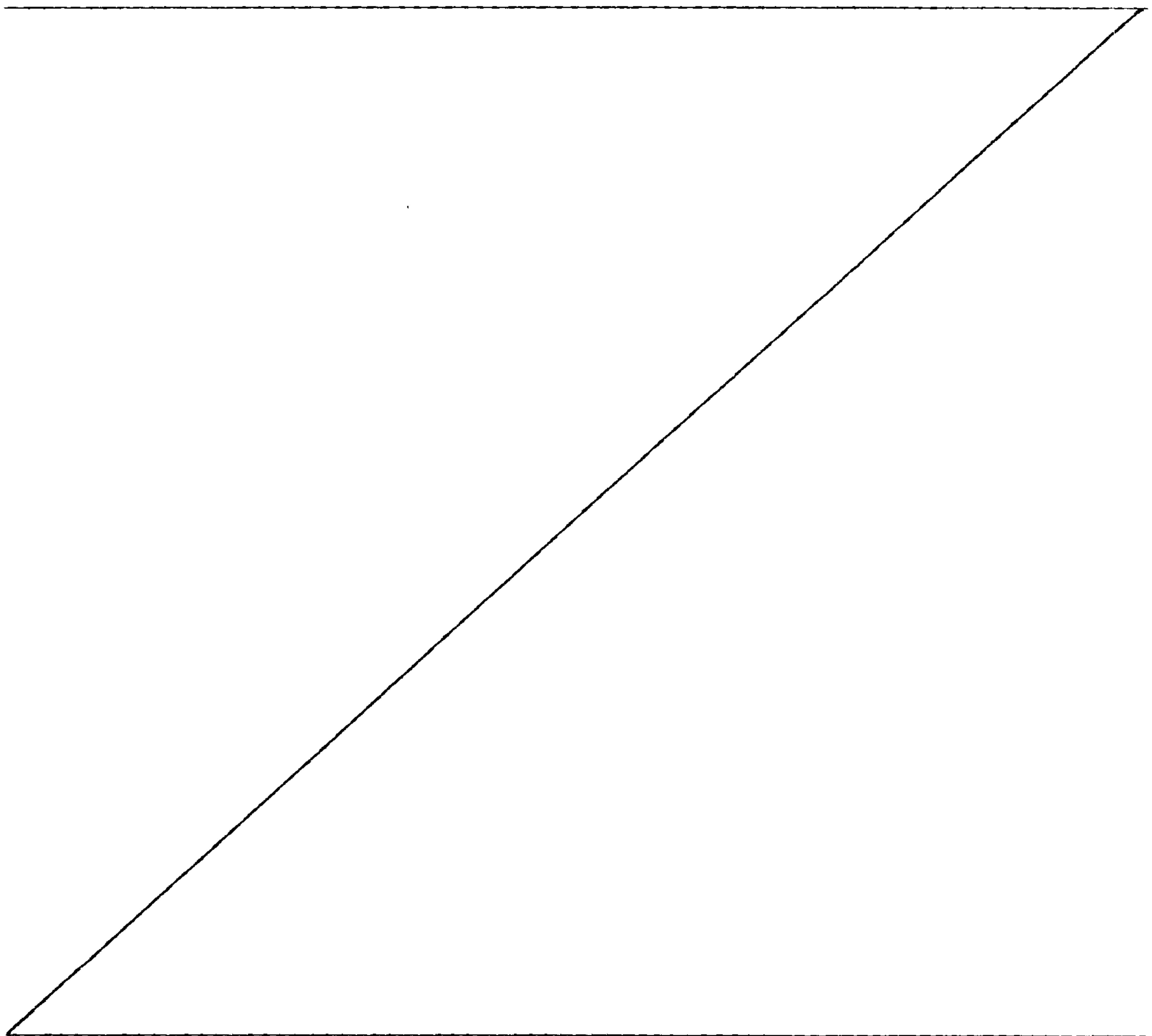
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upper portion is in line with the outer surface of said wafer shell.

The present invention will be now described in detail by way of a non limitative example, with reference to the enclosed figures in which:

- figure 1 is a sectional view of an ice-cream produced with the process according to the invention, before wrapping; and

10 - figure 2 is the section of a wrapping containing the ice-cream produced with the process according to the invention.



The process according to the invention produces first of all, an ice-cream cone already provided with a covering layer, in particular a cone covered with chocolate and the subsequent insertion, after the chocolate got hard, inside a wafer.

According to a first preferred embodiment, the process comprises the following phases or steps:

- the formation of chocolate shell in a mould which has, at least in one of its parts, a shape similar to that of the wafer;
- the dosage of the product inside this shell;
- the insertion of the shell containing the product in a paper envelope wherein the wafer was positioned;
- the finishing, if any, of the ice-cream upper surface, by dosage of chopped almonds and application of a decoration;
- closure of the wrapping obtained in this way.

In particular, the process according to the invention provides at first the production of a chocolate shell 1, which presents a conic part 2 having a form equal to the inner form of the wafer 3 and becomes wider upwardly so as to finish as a truncated-conic section 4 which constitutes the ideal extension of the said wafer.

It is clear that different arrangements can be adopted, for example the conic part 2 can continue without thickening, even if the form herein shown is preferable because it allows to obtain a substantially conic unit and without steps which facilitates the following wrapping.

The shell 1 can be produced with any known method. For example, it can be produced by means of a mould-counter-mould system, or filing a mould with hot chocolate and

emptying it after a light chocolate layer is solidified on the surface or spraying the chocolate in the mould.

Once the shell is produced, it is filled inside with a quantity of product 5 constituting the ice-cream.

At the end of the dosage, the unit is frozen until the product is solidified, thereafter the cone, frozen and with the relevant chocolate covering, is inserted into a paper cone 6, into which the wafer 3 was previously positioned.

The wrapping can be completed by applying a lid 7, which is
10 held by a turned over upper edge 8 of the paper cone.

Before completing the wrapping, it is possible, if necessary, to finish the product by dosing on the upper surface a certain quantity of chopped almonds or by applying a decoration of liquid chocolate, syrup or other toppings.

The described process has different advantages.

It is possible to optimize the chocolate covering, employing chocolate of the ideal quality without being limited by the needs to be obliged to apply it by spraying.

20 The wafer stays crisp without losing its fragrance, since it is not involved in the ice-cream dosing phase. The coupling, in fact, takes place only after the ice-cream was dosed, frozen and covered with chocolate.

In these conditions the wafer maintains its own features over time.

A further advantage is constituted by the fact that it is possible to obtain an chocolate shell being high up to the decoration and the latter is not ruined in positioning and closing the lid since it is applied to an already
30 solidified product.

For example, the wafer can be inserted into the wrapping before positioning the shell with the ice-cream or, it can be applied to the shell and therefore the unit inserted into the paper envelope.

With a different form of preferred embodiment of the invention, the process provides for:

- the realization of an ice-cream product having the appropriate shape;
- once the freezing has occurred, the covering of this
10 cone with a chocolate layer according to known technologies, for example, by immersion into the liquid chocolate;
- once the solidification of the covering layer has occurred, the insertion of the cone provided with the covering into a wafer.

A person skilled in the art can then foresee, within the limits of the invention, several variations.

Both these variations and other possible ones are all considered to be comprised in the field of this invention.

CLAIMS

1. A method of making a composite ice-cream cone comprising:
preforming a closed-bottomed wafer shell having an inner surface, a length, an outer surface, and an upper edge;
preforming a separate, closed-bottomed chocolate shell having a lower portion and an upper portion;
insertedly nesting said lower portion of said chocolate shell into said wafer shell with said lower portion having
10 a form complementary to the inner surface of said wafer shell such that said lower portion extends over both the entire inner surface of said wafer shell and the length of said wafer shell; and
before or after the nesting step, filling and freezing a product into both said lower and upper portions of said chocolate shell;
said upper portion of said separate frozen product filled chocolate shell extending above the upper edge of said wafer shell;
20 said upper portion of said separate frozen product filled chocolate shell having a greater diameter than said lower portion such that the upper portion is in line with the outer surface of said wafer shell.
2. A method according to claim 1, further comprising wrapping a paper wrapping onto said wafer shell and said upper portion of said chocolate shell, and associating a lid with the paper wrapping that extends over said upper portion of said chocolate shell.

3. A composite ice-cream cone comprising: a preformed, closed-bottomed wafer shell having an inner surface, a length, an outer surface, and an upper edge; a separate, preformed, closed-bottomed chocolate shell having a lower portion and an upper portion; and a filling of a frozen product contained in both said lower and upper portions of said chocolate shell; said lower portion of said separate frozen product filled chocolate shell being insertedly nested within said wafer shell with said lower portion
10 having a form complimentary to the inner surface of said wafer shell such that said lower portion extends over both the entire inner surface of said wafer shell and the length of said wafer shell; said upper portion of said separate frozen product filled chocolate shell extending above the upper edge of said wafer shell; said upper portion of said separate frozen product filled chocolate shell having a greater diameter than said lower portion such that the upper portion is in line with the outer surface of said wafer shell.

20 4. A composite ice-cream cone according to claim 3, further comprising a paper wrapping covering said wafer shell and said lower portion of said chocolate shell, and a lid associated with the paper wrapping and extending over said upper portion of said chocolate shell.

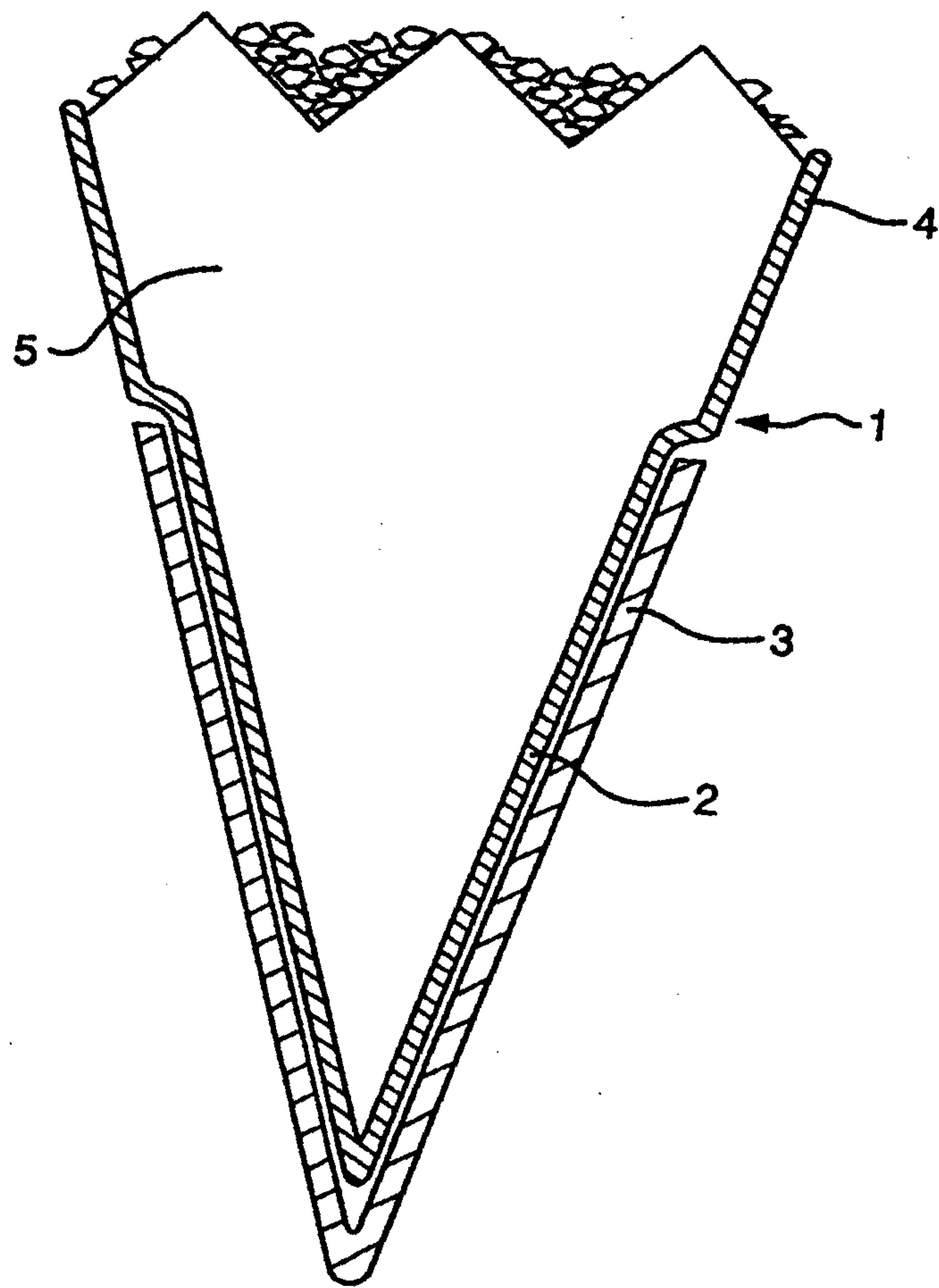


FIG. 1

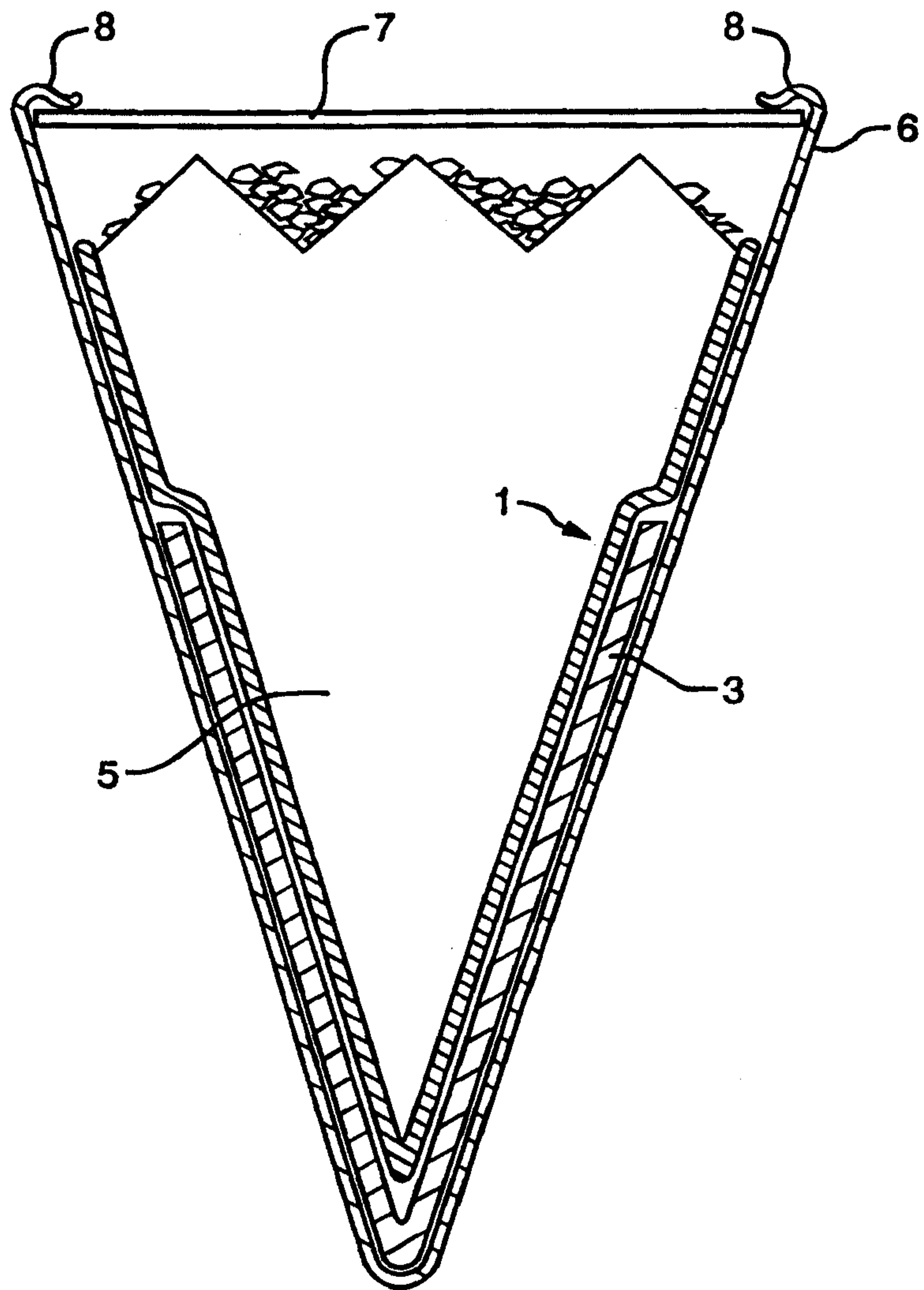


FIG. 2

