



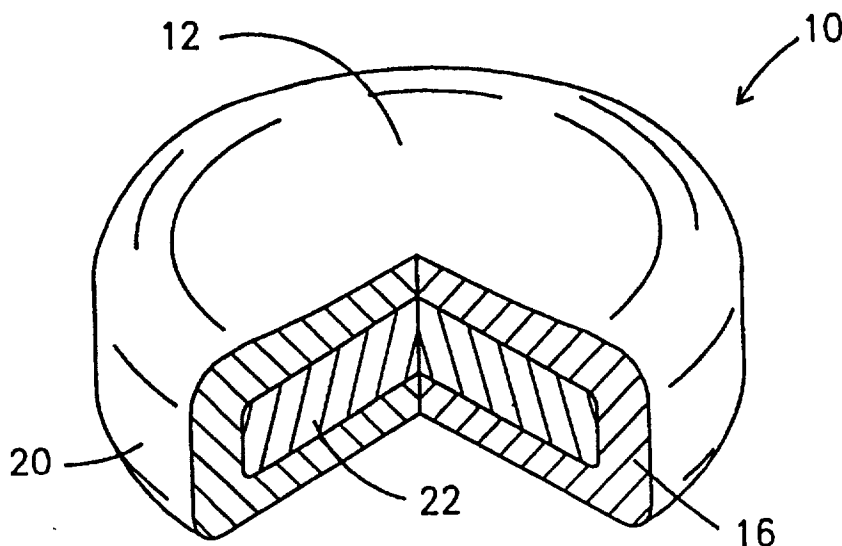
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(54) Title: FILLED BAGEL PRODUCT AND METHOD

(57) Abstract

A process of making a filled or composite dough product (10). The product (10) has an outer crust (20) and an inner crumb (16) which surrounds a disk shape of cream cheese (22). The process comprises the steps of mixing and kneading a quantity of bagel dough including yeast, sealing a cream cheese within the shell of the dough, proofing the dough, setting the dough by steaming or boiling and baking or frying the dough to brown it. The product can be frozen after the steaming or browning steps. The process can be carried out by a coextrusion process and can be filled with toppings. The product can have concealed or exposed cream cheese. The product can have conventional platelet shape, can be of large size or can be a bite-size fried product.



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FILLED BAGEL PRODUCT AND METHODBACKGROUND OF THE INVENTIONField of the Invention

The present invention relates to a unique food product comprising a bagel shell with materials conventionally used as bagel toppings, such as natural or imitation cream, partially or fully enclosed within the shell. The product provides enjoyment of the distinctive bagel and cream cheese taste, with no requirement for cutting or spreading cheese. The product may be frozen either prior to or after setting by steaming or boiling. The product is baked or fried prior to eating. The invention further relates to methods for the production of the filled bagel product.

Discussion of the Related Art

Bagels are a toroidally shaped bakery product having a hard outer crust and soft inner crumb portion which combine to provide a distinctive "bagel" taste and feel. Traditionally, the dough is worked on a flour board and set in a warm place to rise, then kneaded again before being formed into rings. The rings are formed from balls of risen dough, either by poking a hole through the center of each ball or by rolling each ball into a long strip, shaping the strip into a ring, and then pressing the ends together.

An important step in the traditional bagel making process is boiling the yeast dough in water in order to close the pores of the dough to form a skin. Boiling is followed by baking in a hot oven to turn the crust golden brown.

A favorite way of enjoying bagels is to slice them in half, and spread a topping, such as cream cheese, on the cut

surfaces. Bagels are characteristically cut open by slicing them across their width on a plane perpendicular to the axis of the toroid, and the topping is then spread on them. Because of the hard crust, the cutting process requires a sharp knife which can be hazardous. Further, due to the soft crumb interior, a slightly dull knife will crush the hard crust into the soft crumb interior, compacting the interior, which detracts from appearance and taste. Moreover, such planar cut is typically awkward and does not result in two planar halves.

Spreading the cream cheese on the bagel may also be tedious as the cream cheese is stored in a refrigerator and is very viscous until it warms.

It is known to include certain flavorings or fillers on or in bagel dough, such as unions, poppy seeds, salt, or raisins.

These are materials which have substantially the same handling characteristics as bagel dough: they can withstand the heat of cooking, and are relatively stable at room temperature for extended periods of time. These materials are not what one would consider a "topping".

Although bagels and cream cheese go together during consumption, bagels and cream cheese are very different chemically, and have different storage and handling requirements. Cream cheese is perishable, thermally sensitive, and easily contaminated, and is thus conventionally maintained in a chilled state until use. Cream cheese can not be frozen and thawed without separation of liquids and solids, nor can it be left exposed to air at room temperature for extended periods, nor can it be subject to the high temperatures at which bagel dough is cooked. Thus, for reasons of product preparation as well as for reasons of food storage and handling, it would be counter-intuitive to incorporate cream

cheese into a bagel dough shell.

U.S. Patent 5,236,724 entitled "Filled Bagel Dough Product and Method" which issued to the present inventor was first to describe a technique by which cream cheese could actually be incorporated into a bagel dough shell. However, the filled bagel dough product is disclosed as being in the shape of a ball. A ball-shaped product has inherent limitations, both in the cooking process and in the consumption process. A bagel dough ball product, while having advantages of being compact, relatively stable at room temperature, and easy to handle, is necessarily limited in size, since a cream cheese filled bagel ball, if too large, can not be easily eaten by a consumer. Further, a sphere has a minimal outer surface area and a dome shaped upper surface area. These two factors make it rather difficult to provide toppings on a bagel ball.

While there is no suggestion for the production of a filled bagel product in a shape other than a ball, the present inventor undertook to modify the shape, and discovered that there are significant problems with the handling of a raw bagel dough article filled with cream cheese. These problems included the problem of stretching the bagel dough shell, and the problem of joining a first bagel dough surface to a second bagel dough surface after one or both surfaces had been contacted by cream cheese to for a tight, non-leaking seal.

There is thus a need for a filled bagel dough product which represents an improvement over the bagel ball. There is also a need for methods for the production of such improved products.

SUMMARY OF THE INVENTION

It is an object of the present invention a cream cheese-filled bagel dough product which provides enjoyment of the

distinctive bagel and cream cheese taste, with no requirement for cutting or spreading the cheese. It is a further object of the invention to provide a cream cheese-filled bagel dough product which can be stored for long periods of time in a freezer.

It is yet a further object of the invention to provide a bagel dough product which has the shape and feel of a conventional toroidal bagel, yet which is provided with a cream cheese filling.

It is yet a further object of the invention to provide a bagel product in a shape which has advantages over a bagel ball.

It is also an object of the invention to provide a novel product which comprises cream cheese, wherein the cream cheese is partially exposed prior to setting as well as prior to baking or frying, wherein the set product is easily stored and transported, and wherein the set product can be readily baked or fried to provide a distinct party food, snack food, or breakfast food enjoyment. Further, the food product is compatible with a wide variety of seasonings and flavorings, and can be adapted to the local taste, e.g., hot Cajun style, herbal California style, lox New York style, etc.

Despite the apparent technical contradictions between the bagel preparation process and the cream cheese handling requirements, the present inventor discovered that a filled bagel dough product can be produced by a method comprising sealing a quantity of cream cheese within a quantity of bagel dough to form a shaped, filled bagel dough article (such as a toroid or a platelet), proofing the shaped product, optionally chilling the proofed, shaped product to reduce the filler core temperature, and then (1), steaming or boiling the product,

freezing the product for long term storage, and subsequently baking or frying or otherwise browning to form an appetizing crust; or (2) steaming or boiling the chilled product, and baking or frying or browning the product. Particularly in the case that the cream cheese is a thermally stable cream cheese, it is not necessary that the cream cheese be completely sealed in bagel dough, and part of the cream cheese may be exposed even during the setting and browning (baking or frying) processes.

In the case of forming the toroidal bagel product, the filled shape can be produced by any suitable technique such as co-extrusion, forming by hand, or by laminating an upper hemispherical bagel shell to a cream cheese filled lower hemispherical bagel shell.

In the case of forming a platelet shaped product, the filled shape can be produced by any suitable technique such as forming a filled ball or other shape and compressing the shape, preferably to a greater extent centrally than peripherally, to form a platelet, or by a laminating process wherein cream cheese is deposited onto a lower bagel shell layer, an upper shell layer is superposed and laminated to the lower bagel shell layer to seal cream cheese between the upper and lower layers, and if necessary, cutting or trimming the filled product to any desired pattern or shape.

The step of setting prior to cooking forms an external and an internal skin, sets the yeast, and forms a wet crust. That is, as the cheese inside the product gets hot it gives off steam which steams the inside wall of the bagel product.

Surprisingly, the product of the invention can be freezer stored, where traditional solid cream cheese could not be freezer stored because the uncooked cream cheese curdles.

Prior to being offered for sale the food product may be fully cooked (including baking to brown the outer crust) or may be partially cooked, and may be frozen for long periods of time. The frozen product may be put directly into an oven, and when removed, has the texture and taste of a traditional bagel, except that it is filled with cream cheese.

It the specific embodiments which follow may be readily utilized as a basis for modifying or designing other filled bread products for carrying out the same purposes of the present invention.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a partial cut-away perspective view of the filled bagel dough product formed by an extrusion process.

Fig. 2a is a side view of the open-ended hollow bagel dough ball before insertion of the filling.

Fig. 2b is a side view of the open-ended hollow bagel dough ball with the cream cheese filling placed within the hollow.

Fig. 3 shows a filled bagel ball prior to deformation.

Fig. 4 is a side sectional view of a platelet.

Fig. 5 is a top view of the platelet Fig. 4.

Fig. 6 is a cross-sectional view of Fig. 4, with the product receiving steam.

Fig. 7 is a cross-sectional view of Fig. 4, with the product receiving heat.

Fig. 8 is a schematic diagram showing the automated production of a cream cheese filled bagel dough product in a lamination process.

DETAILED DESCRIPTION OF THE INVENTION

The preferred ingredients to be used in the invention will be discussed in detail.

Filler

The term "cream cheese", as used herein, is intended to refer to any product which can be incorporated in a bagel dough and which gives off sufficient steam in the steaming or baking step of the processes discussed below for forming a skin on the interior surface of the filled bagel dough product. For ease of description the term "cream cheese" is used in the specification, but it is understood that substitutes such as tofu, artificial or imitation cream cheese, marmalade, egg, etc. may be used together with or in place of natural cream cheese.

The cream cheese most preferably used in the present invention is a substantially pure, high fat, heat stable (i.e., low water content) cream cheese. For example, Philadelphia Free Cream Cheese having 30 calories per 1 oz serving, of which 0 calories is from fat, is not a high fat heat stable cream cheese. Philadelphia Light Cream Cheese having 70 calories per 1 oz serving, of which 64 calories is from fat, is also not a high fat heat stable cream cheese. Philadelphia Cream Cheese having 100 calories per 1 oz serving, of which 90 calories is from fat, is a high fat heat stable cream cheese.

The cream cheese according to the present invention may be in admixture with other ingredients which do not materially alter the above characteristics of the cream cheese. For example, the cream cheese may be intimately mixed with heat stable ingredients such as pepper, dried onion, sausage, or dried fish. It may be displaced by jellies or jams or chocolate, i.e., these ingredients may be marbled into the

cream cheese without diluting or materially altering the cream cheese component, such that the cream cheese component is a discrete component recognizable as having the above characteristics.

The characteristics of the preferred cream cheese are as follows:

at least 75 fat calories per ounce, preferably 80 fat calories per ounce, most preferably 90 fat calories per ounce;

water content less than 15% prior to cooking, preferably less than 10% prior to cooking, most preferably less than 5% prior to cooking;

heat stable - a one ounce cube will not deform or denature when exposed to 550°F dry heat or 212°F steam for 2 minutes, reaching a core temperature of at least 140°F, preferably heat stable at core temperatures below 170°F, most preferably heat stable to core temperatures of 200°F.

Preparing bagel dough

Although the present invention is not limited to bagel dough, bagel dough is preferred and the invention will be illustrated with examples using bagel dough. The term "bagel dough" as used herein refers to a very turgid, high protein dough, such as known to make bagels using conventional bagel-making techniques. Such dough is similar to a lean French bread dough, being firm to the touch and easily rolled upon a floured surface. The dough is comprised of a mixture of flour, water, yeast, salt, and, sometimes, sugar. The flour should be a high gluten flour, such as a good clear spring wheat flour with protein content of typically 13.5-14% of flour weight. Water should be added in a quantity of typically 48-53% of flour weight. Salt content should typically be 1.5-2.2% of

flour weight. Yeast should be added in a quantity of typically 0.5-2% of flour weight. Sugar, which serves as a food for the yeast and not as a contributor to the final product, should be a dextrose, corn syrup, high fructose or other fermentable sugar, and can be added up to 4% of flour weight. Residual sugar contributes to the browning of the crust during baking.

Shaping the product

In accordance with the invention, a filled bagel dough product may be produced by any number of processes.

The process may begin with a hollow spherical cup or other shape of stiff, high gluten yeast dough. A quantity of cream cheese is deposited within the cup. The dough edges are brought up and over and sealed around the cream cheese to form a filled ball. This ball forming step may be a manual step or may be a mechanical step as exemplified by, for example, U.S. Patent Nos. 4,334,464, 4,446,160 and 4,515,819 to Shinriki, wherein a ball-shaped encrusted bakery product is automatically formed by depositing a ball of sticky edible paste material (e.g. jam) onto a starch film. Thereafter, a dough sheet is gathered around the ball to enclose it with dough. In accordance with the present invention, this filled shape is proofed, set and frozen for shipment to fast food outlets where it is fried, seasoned, and served hot.

For forming a torroidal bagel or small bite sized bagel bits, coextrusion is particularly preferred. Such a tube with a cream cheese center and a bread product exterior can be shaped into a bagel shape or can be sliced into bite-sized bits which can be further processed. Coextrusion is well known in the bakery product art. For example, U.S. Patent No. 4,251,201 to Krysiak illustrates an apparatus for the preparation of a

filled pretzel. Such filled shapes are also within the contemplation of the invention. Further, U.S. Patent No. 4,882,185 to Hayashi, a vertical tubular extrusion of bread dough crust material and jam or cream core material is cut and formed into two-layered balls without exposure of the core material. Other methods of production of filled dough products are described in U.S. Patent Nos. 4,794,009 and 4,882,185.

The preferred form of the filled bagel dough product of the present invention, shown in Fig. 1, may be made by hand or may be made in an automated fashion, using suitable machinery, such as shown in Fig. 8.

As shown in Fig. 1, the filled bagel dough product 10 is platelet shaped, possibly having a shallow recess 12 inside the edges. The finished bagel product 10 is a steamed and browned bagel dough product having an outer crust 20 and an inner crumb 16 which surrounds a disk shape of cream cheese 22.

The invention also pertains to ball shaped bagels, and to products using ball shaped bagels as intermediate shapes in the forming of the final products. As shown in Fig. 2a, after the bagel dough is mixed and kneaded to develop the gluten, it is shaped into a cup 11, open on one end 14, exposing a hollow 18.

As illustrated in Fig. 2b, a scoop of cream cheese 22, such as PHILADELPHIA BRAND (TM) at about 4-16°C is inserted into the hollow 18 through the open end 14. The open end 14 is then closed to hermetically seal the cream cheese 22 within the dough ball 11 as shown in Fig. 3. The round sealed ball 11 may be about the size of a nickel prior to proofing. Such a starting product will form a food product approximately the size of a golf ball following proofing and steaming. The size of the food product may vary depending upon intended use. In one form, the final food product may be the size of popcorn,

and may be consumed in a single bite. In the case that the food product is the size of a golf ball, two or more bites may be sufficient to ingest the food product.

In the case of platelet shaped food products as discussed below, the product may also be rather large, such as 1-2 Kg., in which case a single food product may serve as a meal, and may be sliced in the manner of a pizza prior to consumption.

The dough ball 11 as shown in Fig. 3 may then be subject to a further forming step. It may be flattened to form a platelet as shown in Fig. 1.

The process for forming the shaped bagel products according to the invention may be as varied as the products themselves. The products may be in any of a variety of shapes and sizes. The product may be elongated, circular, diamond shaped, hexagonal, or even in the shape of a pretzel. The product may be anywhere from about 5 gm. to about 1 Kg., and from about 1 cm in diameter to about 20 cm in diameter for a single serving size, or larger for a multi-serving "pizza" type product.

Proofing

The filled bagel product is then placed to proof within a warm cabinet or unheated oven for 25-90 minutes, preferably 45-60 minutes at approximately 27-50°C, preferably 32-45°C, which permits the yeast to raise the dough.

Chilling

Subsequent to proofing, the product may be chilled before steaming. Chilling is not necessary, particularly when using low water content cream cheese which has been discovered to be thermally stable, but chilling provides the cream cheese with a

cool internal temperature which helps protect the cream cheese during steaming, i.e., the chilling step should cool the internal cream cheese enough to prevent denaturalization of the cream during steaming, while effectively pasteurizing the cream cheese and giving the cream cheese freezable characteristics as discussed above.

The product 10 is chilled until the cream cheese 22 is about 4-10°C. This step prevents the cream cheese 22 from becoming denaturalized by the heat of the steaming process, thus, preserving texture and taste.

Steaming/Boiling

The filled, shaped, proofed and chilled bagel dough product may be steamed for approximately 3-10 minutes, preferably about 5 minutes, or boiled for a few minutes, in a cooking step to provide a wet crust.

As shown in Fig. 6, the product 10 is placed in a steamer preferably for about 5 minutes to enable the hot steam 26 to set the yeast of the crust 20 sufficiently to skin the outside crust 20. The cream cheese 22 contributes to this step as it provides steam within the bagel shell which causes the inner surface of the bagel product 10 to form a skin 17. During this steaming step the product 10 may be supported by a hollow mold, preferably of a porous material, to maintain its shape.

The step of steaming the cheese-filled dough ball acts chemically to modify the cream cheese and enable the cheese to be frozen, together with the bagel shell, so that the texture of the cheese, upon reheating, is the same as if it had never been frozen. Thus, not only does the process of the invention provide a novel bakery product that provides both bagel and cream cheese in a conveniently packaged, prepared combination,

but it enables lengthening of the cream cheese shelf-life over what would normally be available for separately sold bagels and cream cheese.

Chilling

Prior to placing in an oven, the product is preferably, but not necessarily, slightly chilled. Chilling the product after the outside had been set by steaming cools the cream cheese filling enough to prevent denaturalization of the cream during baking, while effectively pasteurizing the cream cheese and giving the cream cheese freezable characteristics as discussed above. The product 10 is chilled until the cream cheese 22 is about 4-10°C. This step prevents the cream cheese 22 from becoming denatured by the heat of the baking process, thus, keeping its texture and taste.

However, in the case of using a heat stable cream cheese, this chilling step prior to baking or frying is usually not necessary.

Egg wash

The product 10 may be glazed with egg wash prior to the baking step and may be filled with other products, such as poppy seeds, onion, etc., to enhance the flavor and to accommodate the tastes and specific desires of individual consumers.

Toppings

At any time subsequent to proofing, toppings such as cheese, tomatoes, spinach, etc. may be applied to the top of the bagel dough product, particularly the platelet shaped product. Topping prior to baking results in the topping being

more firmly adhered to the bagel product, which facilitates handling, transporting, packaging, and consumption.

Impinger Conveyor Oven

The steamed and optionally chilled product may next be placed in an oven for approximately 1-10 minutes, preferably about 2 minutes, of browning (depending upon temperature, type oven, and size of filled product).

As shown in Fig. 7, the product 10 is browned through applied heat 28 in an impinger conveyor oven (similar to a commercial pizza oven) for approximately 2 minutes.

The yeast is most likely fully deactivated prior to the browning step, but any remaining active yeast may continue to ferment within the crumb 16 for a short period to reduce the size of gas cells in the annular interior of the baked product 10. The finished dough texture becomes compacted, since the crusts 16, 17 have already been set during the steaming step.

It is yet a further surprising discovery that a filled bagel product prepared in accordance with the present invention may be baked for an extended period of time to produce a product with a low moisture content, providing a non-traditional bagel dough product which can be stored for long periods without freezing or refrigeration. This dried product is an ideal snack food.

Frying

Another option is to take the filled bagel product and, instead of baking in an oven, frying in a conventional manner and then dipping the product in sugar to make a confectionery type of bagel product or coating with a seasoning to serve as a snack food. The cream cheese may either be encased completely

in dough, or, in the case of using a heat stable cream cheese, the cream cheese may be partially exposed during the steaming and baking or frying steps. A product made by simultaneously frying both the exposed bread dough and exposed cream cheese is completely unique.

Blast Freezer

The product 10 may be frozen at any time after proofing and steaming or boiling. For home consumption, for the convenience of the consumer, the dough preferably frozen after the partial or complete browning step. For retail outlets such as fast food establishments in the business of serving fried foods, the proofed set product is preferably frozen immediately after setting. The product may be stored in a freezer for up to one year without deterioration, or up to one month in a refrigerator without deterioration.

The inventive process produces freezable cream cheese 22 which ordinarily would curdle if frozen, or from which liquids would separate from solids during thawing. The steaming step, as shown in Fig. 18, acts chemically to enable the cream cheese 22 to be frozen, together with the bagel shell. Further, upon reheating within the bagel shell, the cream cheese 22 is restored to its original texture and flavor. Thus, the product 10 not only provides a freezable, cream cheese 22 filled bagel product which, upon reheating, is extremely tasty and provides the same enjoyment as conventional heated bagels which are cut open and filled with cream cheese, the product 10 also allows the lengthening of the shelf-life of the cream cheese 22 through allowing it to be frozen. The one year period of storage far exceeds the storage capability of separately sold conventional bagels and cream cheese.

Packaging

Any conventional packaging process may be used.

Consumption

The resulting product is a cream cheese-filled or bearing bagel dough product which can be fried or defrosted or heated to provide enjoyment of the distinctive bagel and cream cheese taste, with no requirement for cutting or spreading the cheese.

The process of the invention enables the steamed product to be frozen, including the cream cheese, for extended periods with no deterioration in quality.

The proofed, steamed product may be sold to consumers in a frozen state, and may be thawed, micro-waved or, preferably, fried, baked or otherwise browned by the consumer prior to consumption. The product need not be thawed prior to baking, and may be microwaved or baked while still frozen. The thawed or frozen product is placed in a hot oven for approximately 1-10, preferably about 2 minutes, of browning (the time varying according to the mass of the individual products). During browning the steam given off by the filling steams and forms a skin on the inside of the shell. The resulting product is a cream cheese-filled bagel dough product which provides enjoyment of the distinctive bagel and cream cheese taste, with no requirement for cutting or spreading the cheese.

In an alternative embodiment of the invention, the product may be proofed and frozen prior to steaming, and may be steamed subsequent to prolonged storage.

Further, the product may even be grilled in much the same way that a grilled cheese sandwich is prepared. Such a product is crunchy outside, warm and soft inside, low-fat, and can be

sold directly to the consumer in much the same way that slices of pizza are currently being sold.

In yet a further embodiment, the filled balls or other shapes may be baked to the point that the bagel shell and cream cheese are dehydrated, forming a dry product which may be stored without requiring freezing. This dried product has a crunchy mouth-feel and can compete with potato chips, nachos, etc.

The product may have been baked or browned prior to being frozen and sold to the consumer, or may have been frozen without baking or with only partial baking.

In the case that the product is frozen without having been baked, the frozen or thawed composite is placed in a heated oven by the consumer, and during baking the steam given off by the filling steams and forms a skin on the inside of the shell.

In the case that the product is browned or partially baked prior to freezing and selling to the consumer, the filling in the filled bagel product gives off steam during the baking process, which forms a skin in the inside wall of the bagel dough shell. This skin allows for cold storage of the composite, and for secondary baking by the consumer to further form a crust on the outside of the shell.

Thus, not only does the process provide a novel bakery product that provides both bagel and cream cheese in a conveniently packaged, prepared combination, but it enables lengthening of the cream cheese shelf-life over what would normally be available for separately sold bagels and cream cheese.

Variations

The filled dough product, in addition to being filled with

cream cheese, may also be filled with other traditional bagel topping, such as onions, poppy seeds, or lox. The surface may be shined or glazed, if desired, with an egg or other wash.

Lamination process

The invention further includes a process which can be used to produce a platelet shaped filled bagel dough product, and preferably a relatively large (half pound) platelet shaped filled bagel dough product.

In accordance with this process, as shown in Fig. 8, a sheet of bagel dough 80 is conveyed along conveyor belt 81 in the direction from left to right as shown in Fig. 8. A quantity of cream cheese or other filler is deposited from reservoir 82 through outlet 83 onto the lower sheet of bagel dough 80, preferably in the shape of circular paddies about 0.5 cm high and 10 cm in diameter. These paddies may be formed by any technique, such as wire cutting of a solidified elongate tubular 10 cm diameter cream cheese feed. As the dough advances further to the right a top sheet or layer of bagel dough 85 is conveyed by conveyor belt 86 and deposited over the lower sheet of bagel dough 80 and filler 84. A drum shaped cookie-cutter type cutting device 87 is used to cut around the perimeter of the filling, and at the same time to laminate the upper and lower sheets of bagel material to each other at the circumferential area of contact. The material around the cut out area is removed, and the cut out laminated products are further processed as discussed above. As the relatively planar shape proofs, it tends to grow upwardly rather than outwardly, so that a 12 cm diameter dough product will rise while proofing but will remain close to 12 cm in diameter.

The advantage of the lamination technique is the ease of

forming products of any desired shape, such as squares, hexagons, or decorative ornamental shapes.

The end product for consumption is an approximately 12 cm in diameter, approximately 0.25 Kg. novel food item which has all the desirable characteristics described above, and permits toppings to be easily applied and retained to the upper surface, and which further can serve as a snack or meal for one or more people.

In order to permanently adhere the toppings to the upper surface, it is possible to add a quick baking or melting step.

Although the filled bread product was described herein with great detail with respect to an embodiment comprising cream cheese filled in a bagel shell, it will be readily apparent that the combination is capable of use in a number of other applications. Although this invention has been described in its preferred form with a certain of particularity with respect to a cream cheese filled bagel dough product, it is understood that the present disclosure of the preferred form has been made only by way of example and that numerous changes in the details of structures and the composition of the combination may be resorted to without departing from the spirit and scope of the invention.

Now that the invention has been described,

I claim:

1. A process for making a filled dough product, comprising the steps of:

mixing and kneading flour, salt, yeast and water to form a yeast dough;

forming a composite product comprising cream cheese and yeast dough;

proofing the composite product to activate said yeast to raise said dough through fermentation;

setting the proofed product by boiling or steaming to form a set product; and

baking or frying the set product.

2. A process as in claim 1, wherein said composite product is formed by co-extrusion.

3. A process as in claim 1, wherein the product produced by said process is in the shape of a traditional toroidal bagel.

4. A process as in claim 1, wherein said dough is a bagel dough.

5. A process as in claim 1, further comprising baking said product under conditions to produce a substantially dehydrated product.

6. A process as in claim 1, comprising the steps of:
mixing and kneading flour, salt, yeast and water to form a yeast bagel dough;

forming a composite product by forming product a shell of

said yeast bagel dough around and completely enclosing a quantity of cream cheese, said quantity of cream cheese forming a cream cheese filler material core, said bagel shell having an outer surface and an inner surface;

proofing the composite product to activate said yeast to raise said dough through fermentation;

setting the proofed product by boiling or steaming to form a set product; and

baking or frying said set product.

7. A process as in claim 1, comprising the steps of:
mixing and kneading flour, salt, yeast and water to form a yeast dough;

forming a first layer of dough from said dough;

depositing a cream cheese filler material on said first layer of dough;

depositing a second layer of said dough over said first layer and filler material;

pressing said first and second layers together to laminate said first and second layers together in the area adjacent the deposited filler material and to seal said filler material between said first and second layers to form a laminated product;

proofing said laminated product to activate said yeast to raise said dough through fermentation and to form a proofed product; and

setting said proofed product by steaming or boiling.

8. A process as in claim 7, wherein said second layer is formed on said first layer by folding at least part of said first layer over said second layer.

9. A process as in claim 1, said process comprising:
- (a) selecting a high-fat, heat-stable cream cheese;
 - (b) preparing a raw dough selected from the group consisting of bagel dough, pizza dough, and bread dough;
 - (c) forming a composite comprising raw dough and a quantity of high-fat, heat-stable cream cheese, said cream cheese being completely or partially sealed by said dough;
 - (d) steaming the composite product to set the dough; and
 - (e) frying or baking.
10. A process as in claim 1, further comprising a step of freezing at any time prior to baking or frying.
11. A process as in claim 1, further comprising a step of chilling the product to cool the core temperature of the product at any time prior to any of steaming, boiling, baking or frying.
12. A process as in claim 1, further comprising applying sugar or a spice coating to said product following frying.
14. A product produced by any of claims 1-12.
15. A product as in claim 14, wherein said product has exposed cream cheese.
16. A product as in claim 14, wherein said product is fried.
17. A product as in claim 14, wherein said product has the shape and appearance of a traditional bagel.

18. A process as in claim 1, wherein said composite product is formed by co-extrusion, and wherein said composite article is divided after proofing and before setting.

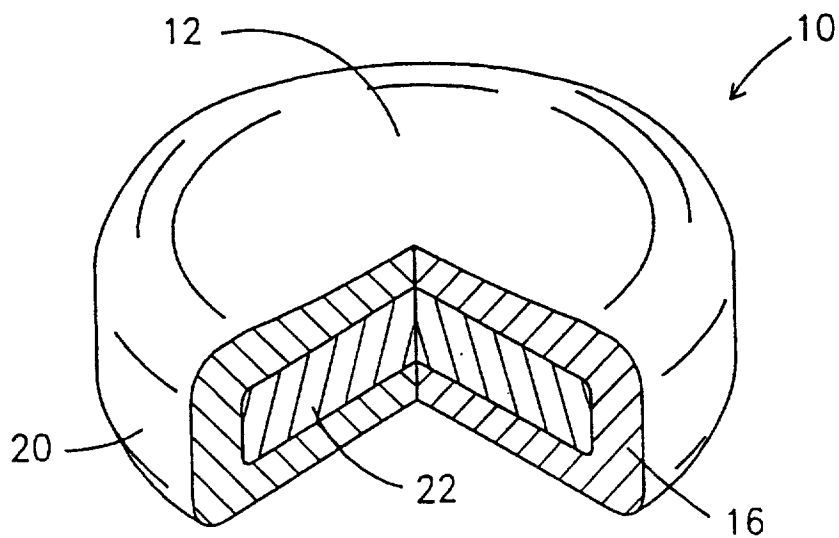


Fig. 1

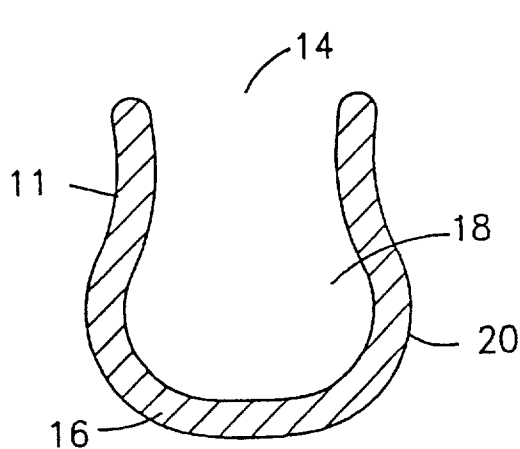


Fig. 2a

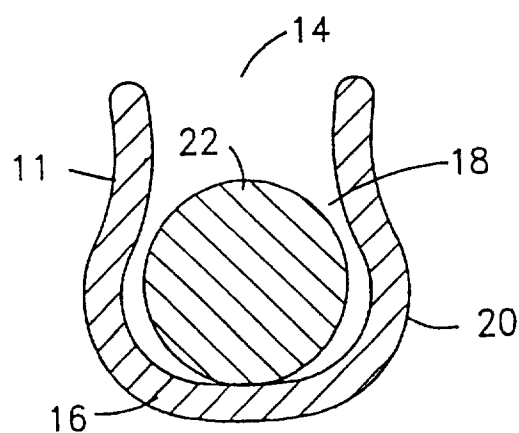


Fig. 2b

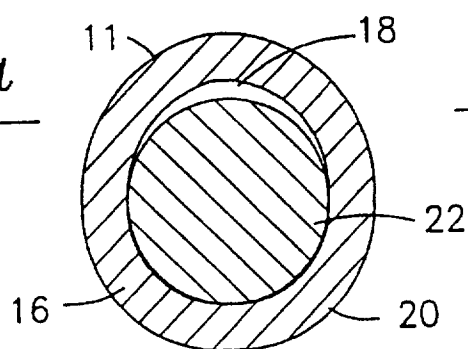


Fig. 3

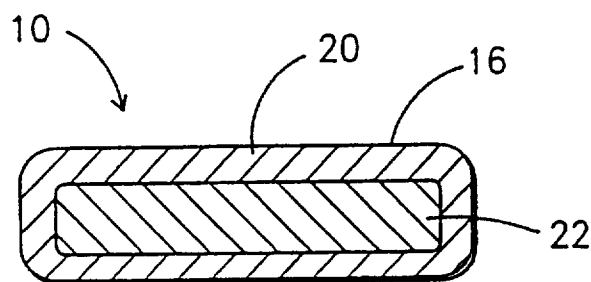


Fig. 4

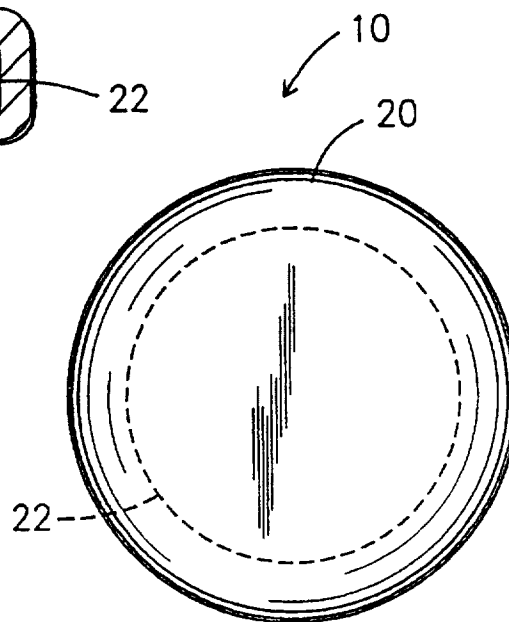


Fig. 5

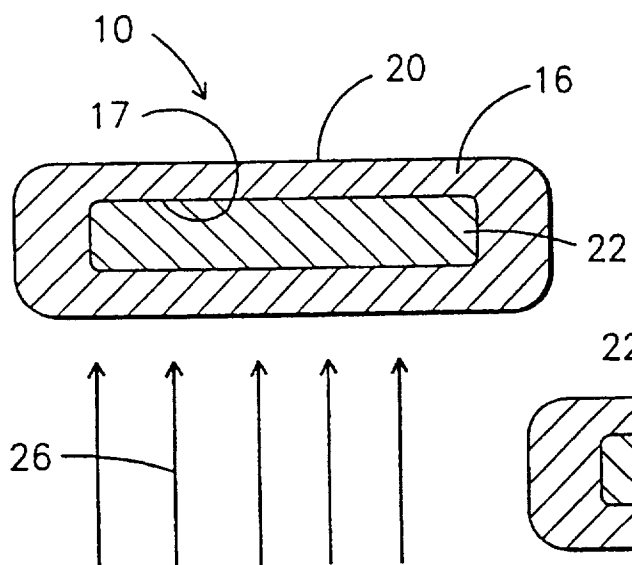


Fig. 6

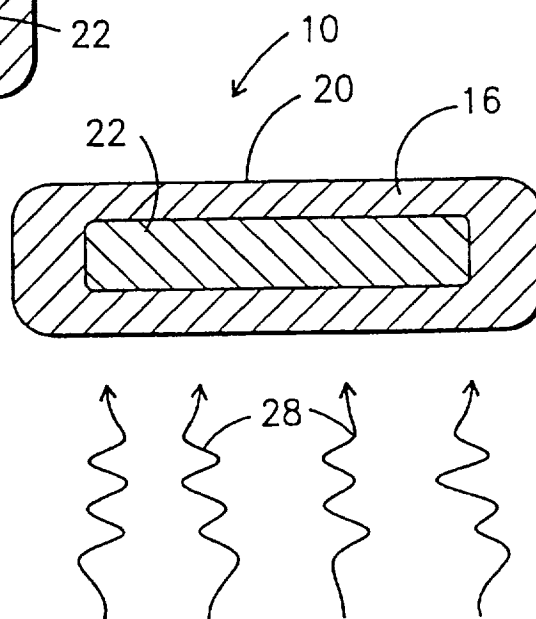


Fig. 7

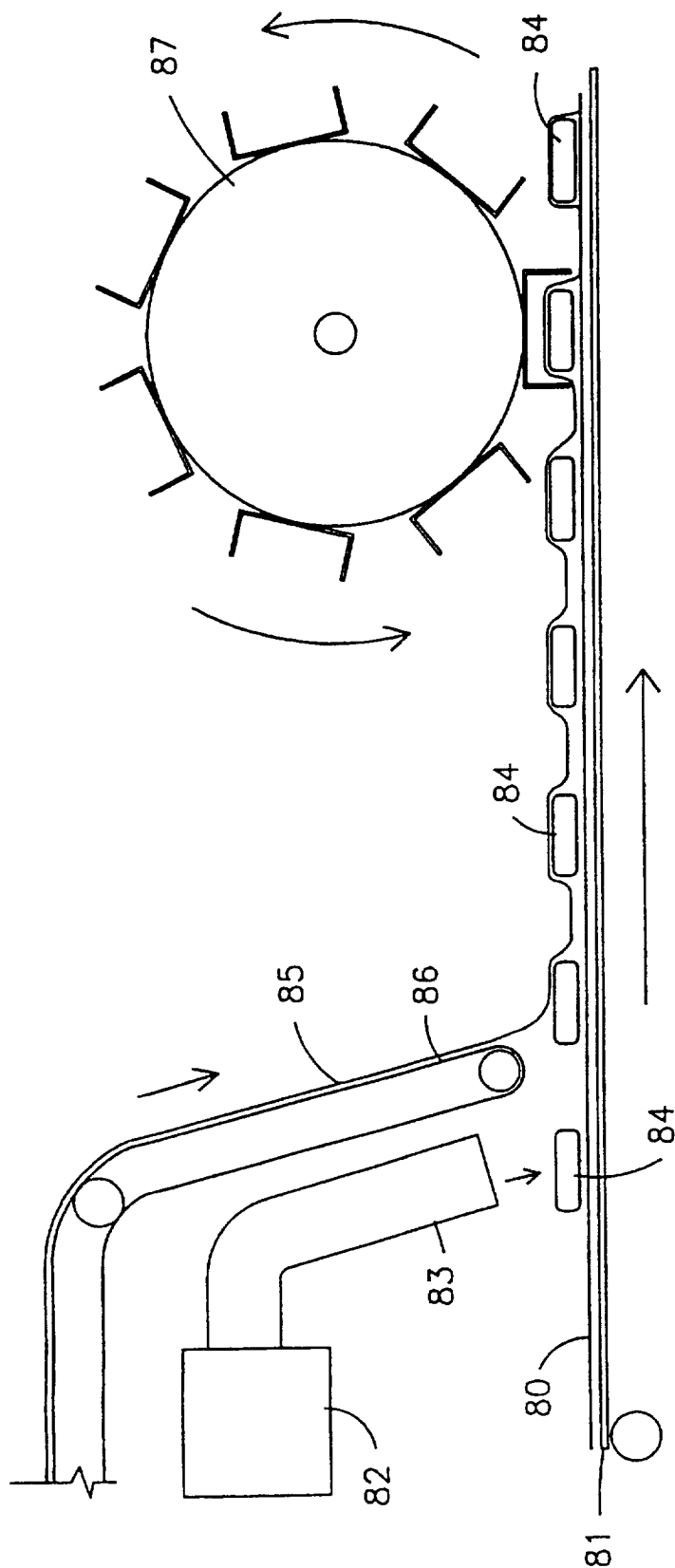


Fig. 8

INTERNATIONAL SEARCH REPORT

 International application No. --
 PCT/US97/10090

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : A21D 10/00

US CL : 426/94

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 426/94, 19, 21, 499, 549

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
noneElectronic data base consulted during the international search (name of data base and, where practicable, search terms used)
none

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ---- Y	US, A, 5,236,724 (BURGER) 17 August 1993 (17.08.93), see column 2, lines 50-68 and column 3, lines 1-62.	1, 4-6, 10, 12 , 13 ----- 2- 3, 7-9, 11, 14-17

☐ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

18 JULY 1997

Date of mailing of the international search report

28 AUG 1997

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