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(54) Title: CONFECTIONERY PRODUCTS WITH FILLED PORTIONS

(57) Abstract: The invention provides a confectionery product comprising a main confectionery body formed around at least one removable portion defined by one or more areas of weakness in the main confectionery body, wherein the or each removable portion comprises at least one enclosed and at least partially filled cavity.

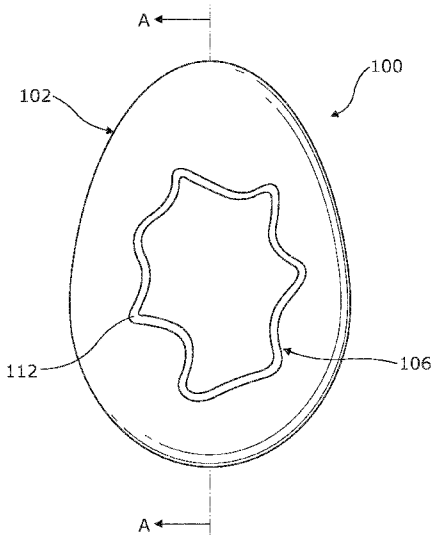


Fig. 1a

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Confectionery Products with Filled Portions

Technical Field of the Invention

The present invention relates to confectionery products comprising filled portions, particularly to confectionery products comprising removable filled portions and to confectionery shells comprising filled portions, and methods of manufacturing the same.

Background to the Invention

It is common in the confectionery industry to provide solid chocolate tablets and shells.

Some chocolate tablets can be made to have removable centre-filled chunks, for example caramel-filled blocks/pieces, which comprise an enclosed and at least partially filled cavity therein and which can be broken off from around the periphery of the tablet and consumed individually. However, such tablets do not allow a consumer to break off or push through such centre-filled chunks which do not form part of the periphery of the tablet, and each piece which is broken off must be removed from around the edge of the tablet.

There is therefore a need to provide a confectionery product, including a chocolate tablet or shell, which comprises a main confectionery body and one or more removable portions surrounded by the main body, each removable portion comprising at least one enclosed and at least partially filled cavity.

It would be further advantageous to provide such a confectionery product where the or each removable portion can be pushed through or out of the main confectionery body, thus leaving a corresponding gap or hole in the main confectionery body.

Chocolate shells, such as chocolate Easter eggs, tend to be limited to a single, solid chocolate composition of a particular shape, and thus are very limited in the variety of consumer experience which they offer, such as visual variety, taste profile, mouthfeel, and number of different portions or sections which vary in some identifiable

way (typical Easter eggs only comprise a single portion), such as varying structure or type of confectionery material. Such shells can also only be eaten in a limited number of ways, for example biting the edge or breaking or smashing it up into lots of pieces and eating the pieces individually.

There is therefore a need to provide a confectionery shell which offers a consumer a more varied experience to traditional confectionery shells, such as Easter eggs.

It would therefore be advantageous to provide a confectionery shell which comprises at least one enclosed and at least partially filled pocket formed within the shell wall.

It would be further advantageous to provide such a confectionery shell wherein the or each removable portion is removable from the shell or shell wall.

It would be yet further advantageous to provide such a confectionery shell wherein the or each removable portion can be pushed through or out of the shell or shell wall, thus leaving a corresponding gap or hole in the shell or shell wall.

It is therefore an aim of embodiments of the invention to overcome or mitigate at least one problem of the prior art, whether described herein or not.

Summary of the Invention

According to a first aspect of the invention there is provided a confectionery product comprising a main confectionery body formed around at least one removable portion defined by one or more areas of weakness in the main confectionery body, wherein the or each removable portion comprises at least one enclosed and at least partially filled cavity.

By a “removable” portion, it is meant a portion which can be removed from the main confectionery body by virtue of the one or more areas of weakness located around its perimeter. The or each removable portion may be removed for example by applying a force to its surface (for example with a finger) in order to push or pull the portion out

of the body, or by striking it (in order to break at least a portion of the area(s) of weakness) and shaking it out of the body.

An "enclosed cavity" includes a fully sealed cavity, but also includes a cavity which may not be fully sealed, but which is sufficiently enclosed so as to retain the one or more fillings located therein, no matter the orientation of the product.

In some embodiments, the or each removable portion may be surrounded by the one or more areas of weakness.

The product may be configured such that removal of a removable portion from the main confectionery body creates a gap or hole through the main confectionery body.

The main confectionery body and/or the or each removable portion may independently comprise chocolate, such as white chocolate, milk chocolate, dark chocolate, plain chocolate and/or compound chocolate. In some embodiments, at least one removable portion may comprise the same confectionery material as the main confectionery body and/or at least one removable portion may comprise a different confectionery material to the main confectionery body.

The main confectionery body and the one or more removable portions may comprise the same or different type of chocolate, or chocolate composition. The one or more removable portions may comprise substantially similar or identical percentage weights of milk and/or cocoa solids as the main confectionery body composition, for example. When the confectionery product comprises more than one removable portion, each removable portion may comprise the same or different type of chocolate, or chocolate composition. The one or more removable portions may comprise substantially similar or the same chocolate composition, but the main confectionery body may comprise a different chocolate composition.

In some embodiments, the main confectionery body and one or more removable portions both comprise milk chocolate, white chocolate, dark chocolate, plain chocolate or compound chocolate, for example.

In preferred embodiments the main confectionery body and all of the removable portions comprise the same confectionery composition, preferably chocolate or a chocolate composition.

The main confectionery body and the one or more removable portions may be integrally formed, and are preferably integrally formed as a single confectionery piece or product.

The main confectionery body may comprise any suitable shape which may be geometric or irregular. The main confectionery body may comprise a triangular prism, a cuboid, a pentagonal prism, a hexagonal prism, a heptagonal prism, an octagonal prism, a nonagonal prism or a decagonal prism, a sphere, an ellipsoid or an ovoid shape, for example.

In preferred embodiments, the main confectionery body may comprise an enclosed confectionery shell such as a hollow confectionery product, for example a hollow egg, or an open confectionery shell, such as a half-egg shell, for example.

The main confectionery body may comprise a cuboid shape and may define a substantially rectangular tablet. The main confectionery body may comprise a rectangular cuboid comprising a length greater than the width, and a width greater than the depth. The main confectionery body may be in the form of a slab, tablet or sheet, for example. The main confectionery body may comprise a rectangular cross-section that remains substantially similar along the length of the body. The length and width of the main confectionery body may be independently less than or equal to 10 mm, or at least 10 mm, 20 mm, 30 mm, 40 mm, 50 mm, 75 mm, 100 mm, 200 mm or 300 mm, for example.

The maximum depth or thickness, or average depth or thickness, of the main confectionery body may be less than or equal to 5 mm. The minimum depth or thickness, or average depth or thickness, of the main confectionery body may be at least 5 mm, 10 mm, 15 mm, 20 mm, 25 mm, 30 mm, 35 mm, 40 mm, 45 mm or 50 mm, for example.

At least one removable portion may comprise a plurality of enclosed cavities located therein, such as at least 2, 3, 4 or 5 cavities, or may comprise a single cavity. The or each cavity of the or each removable portion may alone or collectively occupy at least 10% of the volume and/or area (i.e. the area defined within the one or more areas of weakness which define the or each removable portion) defined by the or each removable portion, or at least 20%, 30%, 40%, 50%, 60%, 70%, or at least 75%. In preferred embodiments, at least one removable portion comprises a single enclosed cavity therein, which preferably occupies at least 50% of the area and/or volume defined by the or each removable portion.

Substantially the entire area and/or volume of one or more removable portions may comprise a cavity or cavities, or only a portion thereof, such as no more than 90%, 80%, 70%, 60% or no more than 50% of the area and/or volume. In some embodiments, at least 50%, 60%, 70%, 80%, 90% or at least 95% of the area and/or volume of one or more removable portions may comprise a cavity or cavities.

The or each cavity may independently span or fill at least 1%, 2%, 3%, 4%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% or at least 95% of the area and/or volume of one or more removable portions, and/or no more than 1%, 2%, 3%, 4%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% or no more than 95% of the area and/or volume.

In some embodiments, at least one removable portion may comprise one or more major cavities, such as a single major cavity or at least 2, 3, 4, or 5 major cavities, for example, and one or more minor cavities, the or each minor cavity being disposed within a major cavity and comprising an area and/or volume less than that of the major cavity in which it/they is/are disposed. At least one major cavity may comprise a single minor cavity disposed therein, or at least 2, 3, 4 or 5 minor cavities disposed therein, for example.

The incorporation of a major and minor cavity(ies) allows for the incorporation of a plurality of distinct and different fillings in such removable portions, which allows for greater variety in the final product(s).

The or each cavity may independently be at least partially filled with one or more food-stuffs, which may independently be selected from confectionery chocolate, fondant, marshmallow, caramel, aerated fat-based filling such as mousse, fruit, nut, baked goods such as cake or biscuit, chewing gum, boiled candy, jelly or gummy candy, for example.

In some embodiments, at least one cavity of at least one removable portion may comprise a non-foodstuff, such as a novelty item or child's toy, for example.

At least 50%, 60%, 70%, 80%, 90%, 95%, or substantially 100% of the volume of a cavity may be occupied by a filling.

In especially preferred embodiments, at least one removable portion comprises a single cavity which occupies at least 70% of the volume and/or area defined by the or each removable portion and which is at least 70% filled, and preferably at least 80%, 90%, 95% or 100% filled.

The or each removable portion may be formed integrally with the main confectionery body. At least a portion of at least one removable portion may be an integral continuation of the main confectionery body, via one or more integral areas of weakness.

The one or more areas of weakness may comprise one or more lines of weakness. For example, the one or more areas of weakness may comprise an area(s) or line(s) at least partially surrounding (such as fully surrounding) the or each removable portion, said area(s) or line(s) having reduced thickness relative to the bulk thickness of the main confectionery body and/or to areas of the main confectionery body adjacent to the removable portion.

The one or more areas of weakness may be configured to hold the removable portion(s) within the main confectionery body during transport and storage of the product. The one or more areas of weakness may be configured to allow the or each removable portion to be detached from the main confectionery body and removed when pressure is applied, for example by hand, in use. A removable portion may be removed

by a consumer holding the main confectionery body with one hand, and applying a force directly to the removable portion with the other hand so that the removable portion detaches from the main confectionery body, in use, for example.

The one or more areas of weakness may allow the or each removable portion to be detachable from the main confectionery body without removing any other part of the main confectionery body and/or without significantly fracturing, breaking up, damaging or destroying the rest of the main confectionery body, and/or without affecting the overall structure or shape of the main confectionery body or confectionery product. It is to be understood that minor breakage to the area around a removable portion when it is removed is allowable, so long as the vast majority of the material removed from the product or main confectionery body comprise(s) the removable portion.

The or each removable portion may be connected to the main confectionery body by means of a single line or area of weakness surrounding the removable portion, or by a separate line(s) or area(s) of weakness extending along each side of the removable portion. The line(s) or area(s) of weakness may extend along the entire border between the one or more removable portions and the main confectionery body, and thus may be a continuous unbroken line(s) or area(s) of weakness. Alternatively, the one or more removable portions may be connected to the main confectionery body by one or more intermittent or discontinuous areas or lines of weakness, such as one or more lines of perforations, for example. The one or more removable portions may be set in from the perimeter of the main confectionery body (in embodiments where the main confectionery body comprises a perimeter, for example a chocolate sheet, slab, tablet or open shell) and in some embodiments may be located substantially centrally within the perimeter of the main confectionery body. When the confectionery product comprises a single removable portion, the geometric centre of the removable portion may be located substantially near to, or at, the geometric centre of the main confectionery body, in some embodiments.

The one or more removable portions may be located off-centre within the main confectionery body, such as towards a perimeter edge of the main confectionery body.

One or more removable portions may be located closer to a single edge or surface area than the other edges or surface areas of the main confectionery body.

When the confectionery product comprises a plurality of removable portions, a removable portion may be located towards each of the edges of the main confectionery body. The removable portions may be distributed evenly within the main confectionery body, or irregularly within the main confectionery body or randomly within the main confectionery body.

When the confectionery product comprises a single removable portion, the removable portion may be located near to an edge, or near to a corner region, of the main confectionery body.

The one or more removable portions may be substantially closer to any one or more edges than any other edge.

In some embodiments, the main confectionery body may be substantially continuous such that it does not comprise a perimeter edge or periphery, such as in embodiments where the main confectionery body or product is an enclosed confectionery shell (such as a chocolate shell), such as a hollow confectionery shell, for example a hollow egg. In such embodiments, the or each removable portion may be located at any suitable position on/in the main confectionery body. In embodiments where an enclosed confectionery shell comprises a join line or seam resulting from the joining and/or sealing of two open shells, the or each removable portion may be set in from the join line or seam and may be located substantially at the geometrical centre of the corresponding open shell, or anywhere else in/on the open shell(s).

In embodiments where the confectionery product and/or main confectionery body comprises an enclosed chocolate shell such as a hollow chocolate egg, or an open chocolate shell, the or each removable portion may be removable from the main confectionery body without disrupting the overall shell shape, such as the overall egg or half-egg shape. In preferred embodiments, the chocolate shell retains its overall shape when one or more removable portions are removed, and therefore becomes a

chocolate shell, such as a chocolate egg or half-egg, with one or more gaps or holes formed through the wall(s) thereof.

The one or more removable portions may comprise any desired shape. The one or more removable portions may comprise any regular or irregular shape. At least one removable portion may comprise a heart-shaped portion or a splat-shaped portion, for example. All of the removable portions may comprise the same shape, or one or more removable portions may comprise a different shape.

At least one removable portion may comprise substantially the same thickness as at least a portion of the main confectionery body. At least one removable portion may comprise a thickness substantially similar or identical to the adjacent areas of the main confectionery body abutting or surrounding the removable portion(s).

Each removable portion may comprise substantially the same thickness. The main confectionery body may comprise one or more substantially planar or uniform regions surrounding the one or more removable portions, and the removable portions may have a thickness the same or different from the surrounding planar or uniform regions.

At least one removable portion may comprise a thickness less than that of the main confectionery body, and/or adjacent or abutting areas of the main confectionery body.

At least one removable portion may comprise a thickness greater than that of the main confectionery body and/or adjacent or abutting areas of the main confectionery body, and may protrude from one or more surfaces of the main confectionery body, such as the top/front and/or bottom/back surface. Such embodiments are useful as they allow more filling to be located within the enclosed cavity(ies) of such removable portions.

In preferred embodiments wherein the product comprises an enclosed or open confectionery or chocolate shell, such as an egg or half-egg, at least part of the or each removable portion may protrude from the outer surface and/or the inner surface of the

shell. It may be advantageous for at least part of the or each removable portion to protrude only from the inner surface of the shell, as this allows for more filling to be located within the cavity(ies) of the or each removable portion without affecting the overall outer appearance/shape (such as egg shape) of the shell. However it may also be advantageous for the or each removable portion to additionally or alternatively protrude from the outer surface of the shell, as this may be more visually interesting, appealing or enticing to a consumer, who may be able to see that there is filling located within the or each removable portion.

At least one removable portion may comprise one or more rims or lips (corresponding to the shape of one or more wells), which may in some embodiments travel around the perimeter of the or each removable portion, and one or more backing or cover layers extending across the or each well and/or sealing the or each well, rim or lip to form the or each cavity. Each well, cavity, rim or lip may comprise its own backing or cover layer, or two or more may share a common backing or cover layer. The or each well, cavity, rim, lip and/or backing or cover layer may comprise confectionery material, preferably chocolate.

Any number of the one or more removable portions may comprise any number of further removable sub-portions. One or more removable portions may comprise one or more removable sub-portions comprising one or more areas of weakness, as described herein above, and therefore one or more removable portions may comprise one or more sub-removable portions.

The main confectionery body may comprise a plurality of chunks or consumable units, separated by one or more areas or lines of weakness. The one or more areas or lines of weakness separating the chunks of the main confectionery body are different to the one or more areas or lines of weakness surrounding the removable portion(s), and may be lines or areas of reduced thickness separating chunks or consumable units in a solid chocolate tablet, for example. The one or more areas or lines of weakness surrounding the removable portion(s) may be configured such that the pressure on a removable portion or portions will remove the removable portion or portions from the main confectionery body (e.g. by breaking areas or lines of weakness surrounding the

removable portion) without affecting the perimeter of the main confectionery body (in embodiments where the main confectionery body comprises a perimeter) and/or without requiring removal of any other part of the product of main confectionery body and/or without significantly fracturing, breaking up, damaging or destroying the rest of the main confectionery body, and/or without affecting the overall structure or shape of the main confectionery body or confectionery product, whilst any other areas or lines of weakness separating chunks or consumable units will remain intact and unbroken.

The confectionery product, the main confectionery body and/or the or each removable portion may comprise moulded chocolate.

At least one removable portion may comprise surface detailing on one or more surfaces thereof, for example engraving/debossing, embossing, or applied detail such as confectionery laces or piped icing or other confectionery (such as chocolate), for example. At least one removable portion may comprise surface detail branding, which may in some embodiments inform a consumer as to the type of filling located therein.

According to a second aspect of the invention there is provided a method of forming a removable portion in a confectionery body comprising the steps of;

a) forming a confectionery body comprising one or more removable portions defined by one or more areas of weakness around the perimeter of the or each removable portion, wherein the or each removable portion comprises one or more cavities; and

b) at least partially filling the or each cavity in the or each removable portion and then sealing the or each at least partially filled cavity to form one or more enclosed and at least partially filled cavities in the or each removable portion.

The removable portion may be a removable portion substantially as described in relation to the first aspect of the invention.

The confectionery body may comprise a main confectionery body substantially as described in relation to the first aspect of the invention.

Step a) may comprise moulding, preferably integrally moulding, the confectionery body and the or each removable portion.

Step b) may comprise locating one or more fillings within said perimeter and enclosing the or each filling to form one or more enclosed and at least partially filled cavities. The or each filling may be located within the perimeter in any suitable form or state, such as solid, semi-solid or liquid, for example.

Step a) may comprise forming one or more wells within the perimeter corresponding to the shape of the cavity or cavities and step b) may comprise at least partially filling the or each well.

The method of the second aspect of the invention is especially useful when using less viscous fillings (such as semi-solid or liquid fillings), as the one or more wells act to retain such fillings, so that they can be more easily incorporated into the cavity(ies). Step b) may further comprise substantially sealing the or each well during or after at least partially filling it/them, such that the or each substantially sealed well forms an enclosed and at least partially filled cavity. Sealing and filling simultaneously may be performed by co-deposition of filling and sealing material, for example, but in preferred embodiments filling is started and preferably completed, before sealing.

In some embodiments, the method comprises forming a single cavity within the perimeter. In such embodiments, the method may comprise forming a single cavity which covers/spans the entire area of the removable portion.

In some embodiments, the method may comprise forming a plurality of cavities within the perimeter, such as an array of spaced apart cavities.

In some embodiments the method comprises forming one or more major cavities within the perimeter, and forming one or more minor cavities within at least one major cavity. In such embodiments, the method may comprise forming one or more major wells, and forming one or more minor wells within at least one major well. The minor and major well(s) and/or cavity(ies) may be filled, left unfilled and sealed in any suitable order.

The method may comprise enclosing the entire area defined by the perimeter, or only a portion thereof, such as no more than 90%, 80%, 70%, 60% or no more than 50% of the area defined by the perimeter. The method may comprise enclosing at least 50%, 60%, 70%, 80%, 90% or at least 95% of the area defined by the perimeter.

The method may comprise forming one or more cavities wherein the or each cavity may independently cover at least 1%, 2%, 3%, 4%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% or at least 95% of the area defined by the perimeter, and/or wherein the or each cavity may independently cover no more than 1%, 2%, 3%, 4%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% or no more than 95% of the area defined by the perimeter.

The or each cavity, well and/or the area defined by the perimeter of the or each removable portion (or a portion or portions thereof) may be sealed or enclosed in any suitable way, for example by applying a cover of molten confectionery material followed by cooling, or by applying a sealing member, such as a confectionery sealing member, for example a piece or chunk of chocolate, as a backing or cover layer, which may be carried out by heating the point(s) of contact between them and then cooling the join.

In some embodiments, the method comprises cold-stamping. In such embodiments, step a) may comprise forming a confectionery body and simultaneously forming the one or more areas of weakness, for example by utilising one or more grooves and/or protrusions in the stamp(s) and/or mould to form said area(s). Any cavity(ies) and/or well(s), as described above, may also be cold-stamped at the same time as the confectionery body and area(s) of weakness, for example by utilising such grooves and/or protrusions.

According to a third aspect of the invention there is provided a method of manufacturing a confectionery product of the first aspect of the invention comprising the steps of;

a) forming a main confectionery body; and

b) forming one or more removable portions in the main confectionery body, wherein the or each removable portion is formed by the method of the second aspect of the invention.

The method may comprise cold-stamping. In such embodiments, step a) and at least part of step b) may be performed substantially simultaneously.

In embodiments wherein the method comprises forming a plurality of removable portions, the perimeters (comprising one or more areas of weakness) of each removable portion, and any cavities and/or wells associated with the respective removable portions, may be formed substantially simultaneously with each other and with step a), preferably by cold-stamping.

According to a fourth aspect of the invention there is provided an enclosed or open confectionery shell comprising a confectionery wall, the shell comprising at least one enclosed and at least partially filled pocket formed within the confectionery wall.

An "enclosed shell" is defined herein as a substantially continuous shell that has no terminal rim, for example a sphere or egg. An enclosed confectionery shell may therefore be substantially hollow, for example an Easter egg. An "open shell" is defined herein as a shell which has a terminal rim. By way of example, a hemispherical or half-egg shell may be considered an open shell, with the circular or ovoid rim being the "terminal" rim. Two identical open shells may therefore be joined at their terminal rims to form an enclosed shell for example.

The confectionery wall may be a non-planar wall.

The enclosed confectionery shell or open confectionery shell may comprise a main confectionery body substantially as described in relation to the first aspect of the invention, and may therefore possess any suitable combination of features as discussed in relation thereto.

An "enclosed pocket" includes a fully sealed pocket, but also includes a pocket which may not be fully sealed, but which is sufficiently enclosed so as to retain the one or more fillings located therein, no matter the orientation of the product.

At least one pocket may comprise a bulge in the confectionery wall, which may protrude from the inside surface of the confectionery wall and/or from the outside surface of the confectionery wall. The inner and outer surfaces may comprise concave and convex surfaces, respectively. Such embodiments are useful as they allow more filling to be located within the enclosed pocket(s). It may be advantageous for the or each bulge to protrude only from the inner surface of the confectionery wall, as this allows for more filling to be located within the pocket(s) without affecting the overall outer appearance/shape (such as egg or half-egg shape) of the shell. However it may also be advantageous for the or each bulge to additionally or alternatively protrude from the outer surface of the confectionery wall, as this may be more visually interesting, appealing or enticing to a consumer, who may be able to determine that there is something located within the or each bulge.

Substantially the entire confectionery wall may comprise a pocket or pockets, or only a portion thereof, such as no more than 90%, 80%, 70%, 60% or no more than 50% of the confectionery wall. In some embodiments, at least 50%, 60%, 70%, 80%, 90% or at least 95% of the confectionery wall may comprise a pocket or pockets.

The or each pocket may independently span at least 1%, 2%, 3%, 4%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% or at least 95% of the confectionery wall, and/or no more than 1%, 2%, 3%, 4%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% or no more than 95% of the confectionery wall.

The or each pocket may independently be at least partially filled with one or more food-stuffs selected from confectionery (such as chocolate or compound chocolate), fondant, marshmallow, caramel, aerated fat-based filling such as mousse, fruit, nut, baked goods such as cake or biscuit, chewing gum, boiled candy, jelly or gummy candy, for example.

In some embodiments, at least one pocket may comprise a non-foodstuff, such as a novelty item or child's toy, for example.

At least 50%, 60%, 70%, 80%, 90%, 95%, or substantially 100% of the volume of a pocket may be occupied by a filling.

In some embodiments, at least one pocket may comprise one or more sub-pockets disposed therein which (each) comprise an area and/or volume less than that of the pocket in which it/they is/are disposed. At least one pocket may comprise a single sub-pocket disposed therein, or at least 2, 3, 4 or 5 sub-pockets disposed therein, for example.

The incorporation of sub-pockets allows for the incorporation of a plurality of distinct and different fillings in such pockets, which allows for greater variety in the final product(s).

At least one pocket may be set in from the rim of the confectionery wall in embodiments where the confectionery wall comprises a rim, i.e. when the confectionery wall forms an open shell, and may be located substantially centrally within the open shell confectionery wall. When the open confectionery shell comprises a single pocket, the geometric centre of the pocket may be located substantially near to, or at, the geometric centre of the confectionery wall.

The one or more pockets may be located off-centre within the confectionery wall, such as towards a perimeter edge of the confectionery wall. One or more pockets may be located closer to a single edge or surface area than the other edges or surface areas of the confectionery wall.

When the confectionery wall comprises a plurality of pockets, a pocket may be located towards each of the edges of the confectionery wall. The pockets may be distributed evenly around the confectionery wall, or irregularly around the confectionery wall or randomly around the confectionery wall.

When the confectionery wall comprises a single pocket, the pocket may be located near to an edge, or near to a corner region, of the confectionery wall.

The one or more pockets may be substantially closer to any one or more edges of the confectionery wall than any other edge.

In embodiments wherein the confectionery wall does not comprise a rim (i.e. when the confectionery wall forms an enclosed confectionery shell), the or each pocket

may be located at any suitable position in the confectionery wall. In embodiments where a confectionery shell (and therefore the confectionery wall) comprises a join line or seam resulting from the joining and/or sealing of two open shells, the or each pocket may be set in from the join line or seam and may be located substantially at the geometrical centre of the corresponding open shell, or anywhere else in/on the open shell(s).

The confectionery wall may comprise an array of pockets.

The confectionery wall may comprise 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 or more than 10 pockets.

At least one pocket, and preferably all the pockets, may be formed integrally with the confectionery material of the confectionery wall.

The one or more pockets may comprise any desired shape. The one or more pockets may comprise any regular or irregular geometric shape comprising straight or curved edges. At least one pocket may comprise a heart-shaped cavity or a splat-shaped pocket, for example. All of the pockets may comprise the same shape, or one or more pockets may comprise a different shape. The shape of a pocket may be visible from the outside, for example when it comprises a bulge in the confectionery wall.

In embodiments wherein at least one pocket comprises a bulge in the confectionery wall, at least one bulge may comprise surface detailing on one or more surfaces thereof, for example engraving/debossing, embossing, or applied detail such as confectionery fondant or piped icing or other confectionery (such as chocolate), for example. At least one bulge may comprise surface detail branding, which may in some embodiments inform a consumer as to the type of filling located therein.

One or more pockets may form part of one or more removable portions as described in the first aspect of the invention. In such embodiments, the enclosed confectionery shell or open confectionery shell may comprise any appropriate combination of features relating to removable portions as described in relation to the first aspect of the invention, but wherein the “main confectionery body” as described therein is limited to an enclosed confectionery shell, open confectionery shell or

confectionery wall (and wherein "cavity" or "cavities" therein is to be interpreted as "pocket" or "pockets" in this aspect of the invention).

In preferred embodiments, the enclosed confectionery shell or open confectionery shell comprises a confectionery egg or half-egg, preferably a chocolate egg or half-egg.

The shell is preferably formed from chocolate or compound chocolate, preferably moulded chocolate.

According to a fifth aspect of the invention there is provided a method of forming at least one enclosed and at least partially filled pocket within or on the confectionery wall of an enclosed or open confectionery shell, comprising the steps of;

a) providing a confectionery wall; and

b) forming at least one enclosed and at least partially filled pocket within or on the confectionery wall.

The pocket(s) may be substantially as described in relation to the fourth aspect of the invention.

The confectionery wall, enclosed confectionery shell and/or open confectionery shell may be substantially as described in relation to the fourth aspect of the invention.

Step a) may comprise providing a confectionery wall with at least one well, indent, or other cavity formed in the wall. In such embodiments the well, indent or cavity may be formed by a protruding rim defining the well, indent or cavity, which may protrude from the internal surface or external surface of the wall, preferably the internal surface. In other embodiments the well, indent or cavity may be formed by a bulge protruding from the confectionery wall.

Such embodiments may be advantageous for less viscous fillings (such as semi-solid or liquid fillings), as the well(s), indent(s) or cavity(cavities) may act to retain such fillings, so that they can be more easily incorporated into the pocket(s)

Step a) may comprise moulding the confectionery wall and may comprise cold-stamping the wall.

Step b) may comprise locating one or more fillings on the confectionery wall or within any well, indent or cavity in the confectionery wall, and enclosing the or each filling to form one or more enclosed and at least partially filled pockets. The or each filling may be located on or in the confectionery wall in any suitable form or state, such as solid, semi-solid or liquid, for example.

Step b) may comprise providing or forming one or more wells within or on the confectionery wall and at least partially filling the or each well. Such embodiments may be advantageous for less viscous fillings (such as semi-solid or liquid fillings), as the well(s) may act to retain such fillings, so that they can be more easily incorporated into the pocket(s). Step b) may further comprise substantially sealing the or each well after at least partially filling it/them, such that the or each substantially sealed well forms the or each enclosed and at least partially filled pocket.

In some embodiments the method comprises forming one or more sub-pockets within at least one pocket. In such embodiments, the method may comprise forming one or more wells on or in the confectionery wall, and forming one or more sub-wells within at least one well. The well(s) and sub-well(s) and/or pocket(s) and sub-pocket(s) may be filled, left unfilled and sealed in any suitable order.

The method may comprise forming one or more pockets which cover(s) the entirety of one or both surfaces of the confectionery wall, or only a portion thereof, such as no more than 90%, 80%, 70%, 60% or no more than 50% of one or both surfaces of the confectionery wall. The method may comprise forming one or more pockets which cover(s) at least 50%, 60%, 70%, 80%, 90% or at least 95% of one or both surfaces of the confectionery wall.

The method may comprise forming at least one pocket that spans at least 1%, 2%, 3%, 4%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% or at least 95% of the confectionery wall, and/or no more than 1%, 2%, 3%, 4%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% or no more than 95% of the confectionery wall.

Sealing may be performed in any suitable way, for example with an applied sealing member, such as a confectionery sealing member, for example covering with molten confectionery followed by cooling, or applying a sealing member such as a confectionery sealing member such as a piece or chunk of chocolate, which may be sealed to the confectionery wall by heating the point(s) of contact therebetween and cooling the join. In preferred embodiments sealing comprises applying a confectionery backing or cover layer of molten chocolate or compound chocolate, followed by cooling.

In some embodiments, the method comprises cold-stamping. In such embodiments, step a) may comprise cold-stamping a confectionery wall and simultaneously forming one or more wells in or on the confectionery wall, for example by utilising one or more indents and/or protrusions in the stamp(s) and/or mould to form said well(s). The or each well may then be filled and covered during step b) to form the enclosed and at least partially filled pocket(s) within the wall.

In some embodiments, the method may comprise forming at least one pocket as part of a removable portion. Such removable portions may be substantially as described in the first aspect of the invention (but where the "main confectionery body" as described therein is limited to an enclosed confectionery shell, open confectionery shell or confectionery wall), and thus the method may comprise any appropriate combination of features in relation thereto as described in the second aspect of the invention, wherein the "main confectionery body" as described therein is limited to an enclosed confectionery shell, open confectionery shell or confectionery wall. "Cavity" and "cavities" as described therein should be interpreted as akin to "pocket" or "pockets" in this aspect.

The enclosed confectionery shell or open confectionery shell is preferably a confectionery egg or half-egg, which may be hollow or filled.

The method may comprise forming at least one well on the convex and/or concave face of the confectionery wall, preferably during step a).

According to a sixth aspect of the invention there is provided a method of manufacturing an enclosed confectionery shell of the fourth aspect of the invention comprising sealing an open confectionery shell of the fourth aspect of the invention.

The method of the sixth aspect of the invention may comprise sealing the open confectionery shell with another open confectionery shell, which may be an open confectionery shell of the fourth aspect of the invention, and/or which may be obtainable or obtained by the method of the fifth aspect of the invention, for example.

The confectionery shell is preferably a confectionery egg and the method comprises sealing together two confectionery half-eggs, one or both of which are confectionery half-eggs of the fourth aspect of the invention, obtainable or obtained by the method of the fifth aspect of the invention.

Detailed Description of the Invention

In order that the invention may be more clearly understood one or more embodiments thereof will now be described, by way of example only, with reference to the accompanying drawings, of which:

Figure 1a illustrates a front view of an embodiment of a confectionery product of the first aspect of the invention and of an open confectionery shell of the fourth aspect of the invention;

Figure 1b is a cross-section through the product/shell of Figure 1a, along the line A in Figure 1a;

Figures 2a illustrates an interior view of the product/shell of Figure 1 during its manufacture, showing an empty well formed therein;

Figure 2b illustrates an interior view of the product/shell of Figure 1 during its manufacture, showing the well filled with fondant;

Figure 2c illustrates an interior view of the product/shell of Figure 1 after having been manufactured, showing the filled well backed off with chocolate; and

Figure 3 illustrates an embodiment of an enclosed confectionery shell of the fourth aspect of the invention, which has been manufactured by an embodiment of the method of the sixth aspect of the invention

Referring to Figures 1a, 1b, 2a, 2b and 2c, an embodiment of a confectionery product of the first aspect of the invention and of an open confectionery shell of the fourth aspect of the invention is shown, in the form of a chocolate half-egg 100. The half-egg 100 comprises a main confectionery body/confectionery wall in the form of an egg-shaped milk chocolate shell body 102 having a terminal rim 104. The chocolate body 102 comprises a removable portion in the form of a removable centre-filled milk chocolate chunk 106 comprising a cavity/pocket formed therein which contains two different fondants 108, 110. The cavity/pocket is formed by a well 114 defined by a continuous raised chocolate lip 116 formed integrally with the chocolate body 102 and extending into the interior of the shell body 102, and a chocolate backing layer 118 laid on top of, and sealed to, the lip 116. The perimeter of the centre-filled chunk 106 is defined by a continuous line of weakness 112 in the chocolate body 102. The line of weakness 112 is formed from milk chocolate, is integral with the chocolate body 102 and the removable portion 106, and comprises an area of reduced thickness relative to these two components.

Figures 2a-c illustrate the sequential manufacture of the chocolate half-egg 100 of Figure 1 (and Figure 2c) by an embodiment of the methods of the second, third and fifth aspects of the invention. As can be seen in Figure 2a, first a chocolate body 102 is manufactured which comprises a centrally-disposed well 114. The well 114 is defined by a continuous raised chocolate lip 116 which is formed integrally with the chocolate body 102 and is substantially aligned with the line of weakness 112 (visible in Figures 1a and 1b). The chocolate body 102 may be formed in any suitable way, such as by moulding, but is preferably cold-stamped. By utilising a stamp and/or mould with at least one protrusion and/or recess, the chocolate body 102, the lip 116 of the well 114, and the line of weakness 112 may be formed simultaneously in a single stamping action.

As can be seen in Figures 2b and 2c, the well 114 is then filled with, for example, white fondant 108 and orange fondant 110 (which may replicate the filling of a Cadbury

Crème Egg (RTM)) and backed off/sealed with a chocolate backing layer 118 that forms the back wall of the removable centre-filled chunk 106, and thus creates the enclosed cavity/pocket therein, within which resides the fondants 108, 110. The chocolate backing layer 118 may be added as a solid piece which is sealed to the lip 116 of the well 114, or may be deposited on top of the well 114 and lip 116 in a molten state and then allowed to cool.

The removable centre-filled chunk 106 can be removed from the chocolate body 102 by a consumer by applying pressure to its surface and pushing it through (facilitated by relatively easier breakage of the continuous line of weakness 112 relative to the rest of the chocolate body 102), thus leaving a hole or gap through the body 102. The line of weakness 112 also ensures that the chunk 106 can be removed without significantly damaging or destroying the rest of the half-egg 100 and/or without affecting the overall shape of the half-egg 100. Once removed, the consumer can consume the chunk 106 as a distinct, centre-filled item, and can also continue to consume the rest of the chocolate body 102 as they see fit.

In other embodiments, the half-egg 102 may comprise one or more sub-cavities/sub-pockets located within the main cavity/pocket, which may be formed from one or more filled and sealed sub-wells/minor wells located inside the main well/major well 114. Such sub-wells/minor wells may be filled with a different filling to the main well/major well 114 and may be formed simultaneously to the main well/major well 114 and the chocolate body 102, for example by cold-stamping.

Figure 3 illustrates another embodiment of a confectionery product of the first aspect of the invention and of an enclosed confectionery shell of the fourth aspect of the invention, in the form of a hollow chocolate egg 200. The chocolate egg 200 comprises two of the chocolate half-eggs of Figure 1, 100, 100' which have been sealed together, each half-egg 100, 100' therefore comprising a removable centre-filled chunk 106, 106' surrounded by a line of weakness 112, 112'. The egg 200 comprises a join line 202 corresponding to where the two half-eggs 100, 100' have been sealed together.

Sealing of the two half-eggs 100, 100' by an embodiment of the method of the sixth aspect of the invention can be carried out by heating the respective rims (see 104 in Figures 1b and 2a-c) of the half-eggs 100, 100', bringing them into contact, and then allowing the join to cool such that the half-shells 100, 100' are sealed together to form the egg 200. A consumer can therefore remove the two removable centre-filled chunks 106, 106' from the egg 200, in the same manner as described for the half-egg 100 of Figures 1a-b and 2a-c, and consume them as distinct, centre-filled items, and can also continue to consume the remainder of the egg 200 as they see fit.

The one or more embodiments are described above by way of example only. Many variations are possible without departing from the scope of protection afforded by the appended claims.

CLAIMS

1. A confectionery product comprising a main confectionery body formed around at least one removable portion defined by one or more areas of weakness in the main confectionery body, wherein the or each removable portion comprises at least one enclosed and at least partially filled cavity.

2. A confectionery product as claimed in claim 1 wherein the main confectionery body and/or the or each removable portion comprises chocolate.

3. A confectionery product as claimed in claim 1 or claim 2 wherein the main confectionery body comprises an enclosed or open confectionery shell.

4. A confectionery product as claimed in any preceding claim wherein the or each cavity of the or each removable portion alone or collectively occupies at least 50% of the volume and/or area defined by the or each removable portion.

5. A confectionery product as claimed in any preceding claim wherein the or each removable portion is formed integrally with the main confectionery body.

6. A confectionery product as claimed in any preceding claim wherein at least one removable portion comprises a thickness greater than that of the main confectionery body and/or adjacent or abutting areas of the main confectionery body, and/or protrudes from one or more surfaces of the main confectionery body.

7. A method of forming a removable portion in a confectionery body comprising the steps of;
   a) forming a confectionery body comprising one or more removable portions defined by one or more areas of weakness around the perimeter of the or each removable portion, wherein the or each removable portion comprises one or more cavities; and

b) at least partially filling the or each cavity in the or each removable portion and then sealing the or each at least partially filled cavity to form one or more enclosed and at least partially filled cavities in the or each removable portion.

8. A method as claimed in claim 7 wherein step a) comprises integrally moulding the confectionery body and cavity of the or each removable portion, preferably cold-stamping.

9. A method as claimed in claim 7 or claim 8, wherein step a) comprises forming one or more wells within the perimeter of the or each removable portion, and step b) comprises at least partially filling the or each well, and substantially sealing the or each well during or after at least partially filling the or each well, such that the or each substantially sealed well forms an enclosed and at least partially filled cavity.

10. A method as claimed in any one of claims 7 to 9, wherein sealing comprises applying a cover of molten confectionery material followed by cooling of the molten confectionery material, or applying a confectionery sealing member to the main confectionery body, heating the points of contact between them and then cooling the join.

11. A method of manufacturing a confectionery product as claimed in any one of claims 1 to 6 comprising forming a main confectionery body with one or more removable portions in or on the main confectionery body, wherein the or each removable portion is formed by the method as claimed in any one of claims 7 to 10.

12. An enclosed or open confectionery shell comprising a confectionery wall, the shell comprising at least one enclosed and at least partially filled pocket formed within or on the confectionery wall.

13. An enclosed or open confectionery shell as claimed in claim 12 wherein the confectionery wall comprises chocolate.

14. An enclosed or open confectionery shell as claimed in claim 12 or claim 13 wherein at least one pocket comprises a bulge in the confectionery wall.

15. An enclosed or open confectionery shell as claimed in any one of claims 12 to 14 wherein one or more pockets forms part of one or more removable portions, the or each removable portion being defined by one or more areas of weakness in the confectionery wall.

16. A method of forming at least one enclosed and at least partially filled pocket within or on a wall of an enclosed or open confectionery shell, comprising the steps of;
    a) providing a confectionery wall; and
    b) forming at least one enclosed and at least partially filled pocket within or on the confectionery wall.

17. A method as claimed in claim 17 wherein step a) comprises moulding the confectionery wall, preferably cold-stamping.

18. A method as claimed in claim 16 or claim 17, wherein step a) comprises providing a confectionery wall with at least one well, indent, or other cavity formed in the wall.

19. A method as claimed in claim 18 wherein step b) comprises at least partially filling the or each well, indent or cavity and substantially sealing the or each well, indent or cavity during or after at least partially filling the or each well, indent or cavity, such that the or each substantially sealed well, indent or cavity forms an enclosed and at least partially filled pocket.

20. A method as claimed in claim 18 or claim 19, wherein the or each well, indent or cavity is formed by a protruding rim defining the perimeter of each well, indent or cavity.

21. A method as claimed in any one of claims 18 to 20, wherein the or each well, indent or cavity is formed by a bulge protruding from the confectionery wall.

22. A method as claimed in any one of claims 19 to 21, wherein sealing comprises applying a cover of molten confectionery material followed by cooling of the molten confectionery material, or applying a confectionery sealing member to the confectionery wall, heating the points of contact between them and then cooling the join.

23. A method of manufacturing an enclosed confectionery shell as claimed in any one of claims 12 to 15 comprising sealing an open confectionery shell as claimed in any one of claims 12 to 15.

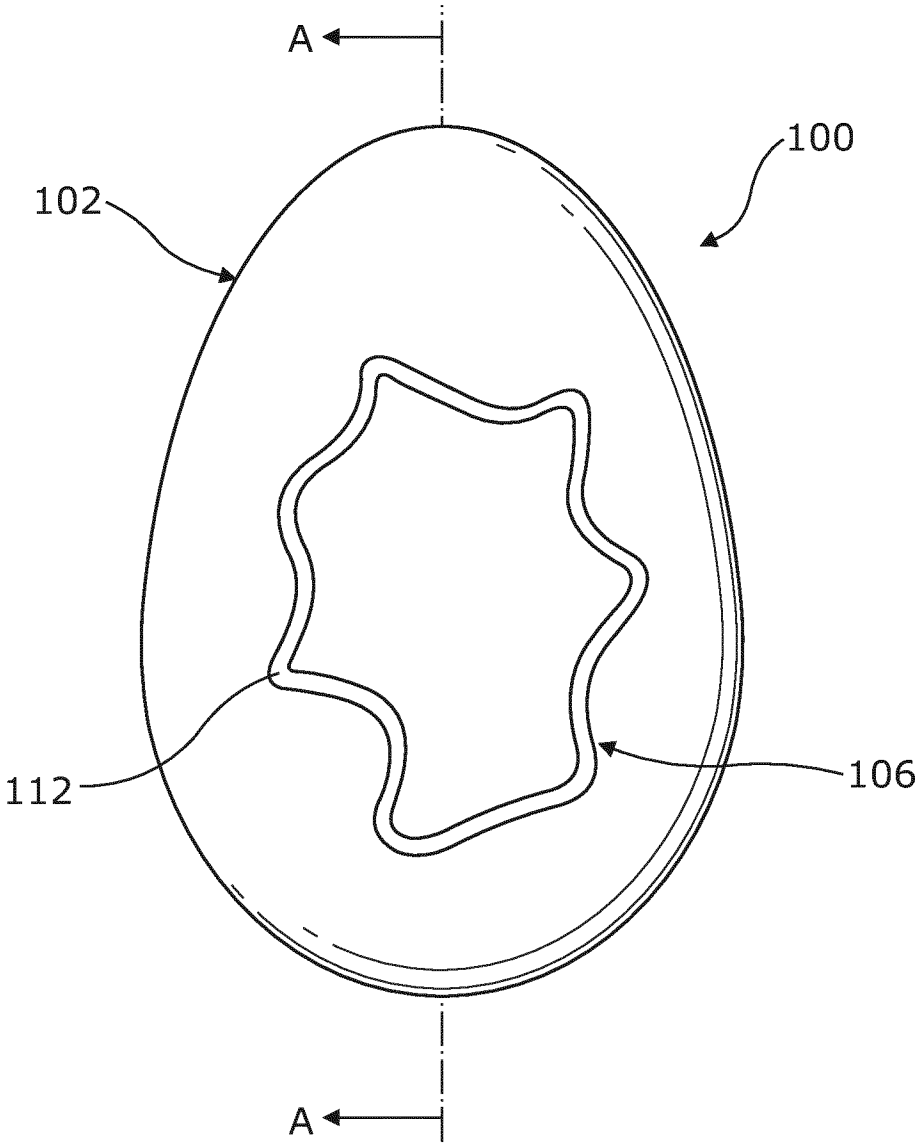


Fig. 1a

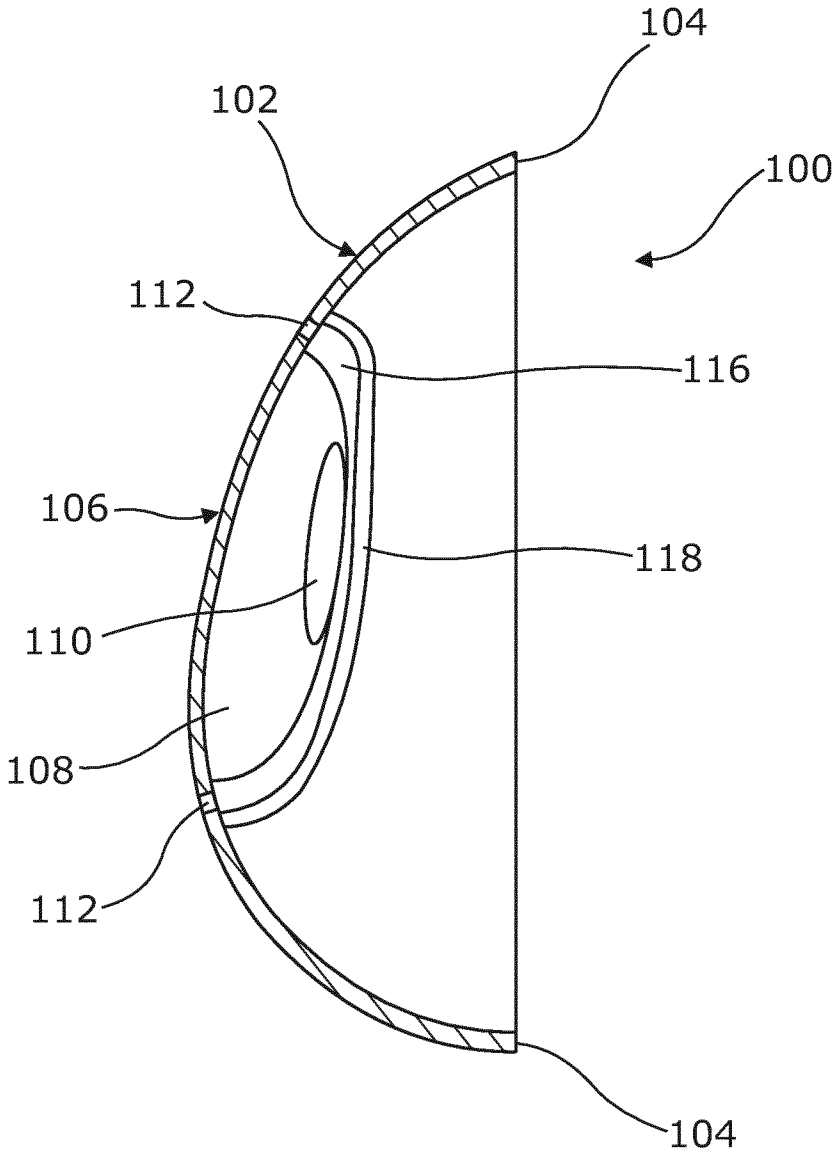


Fig. 1b

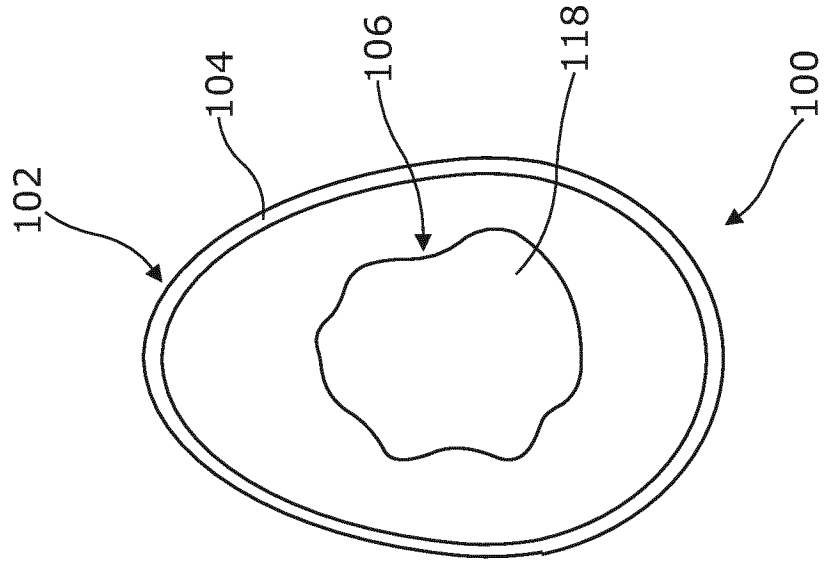


Fig. 2c

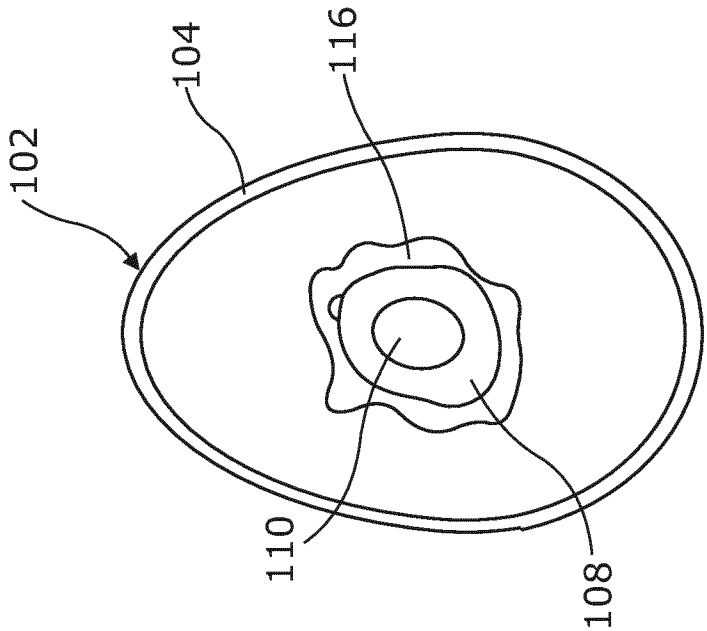


Fig. 2b

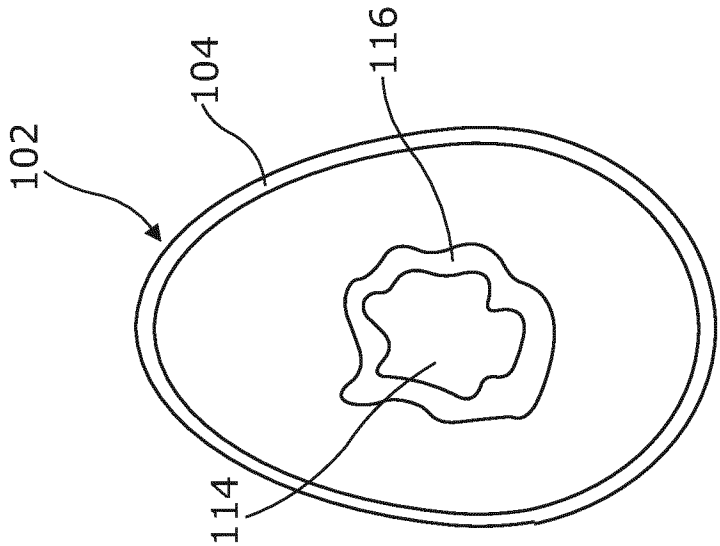


Fig. 2a

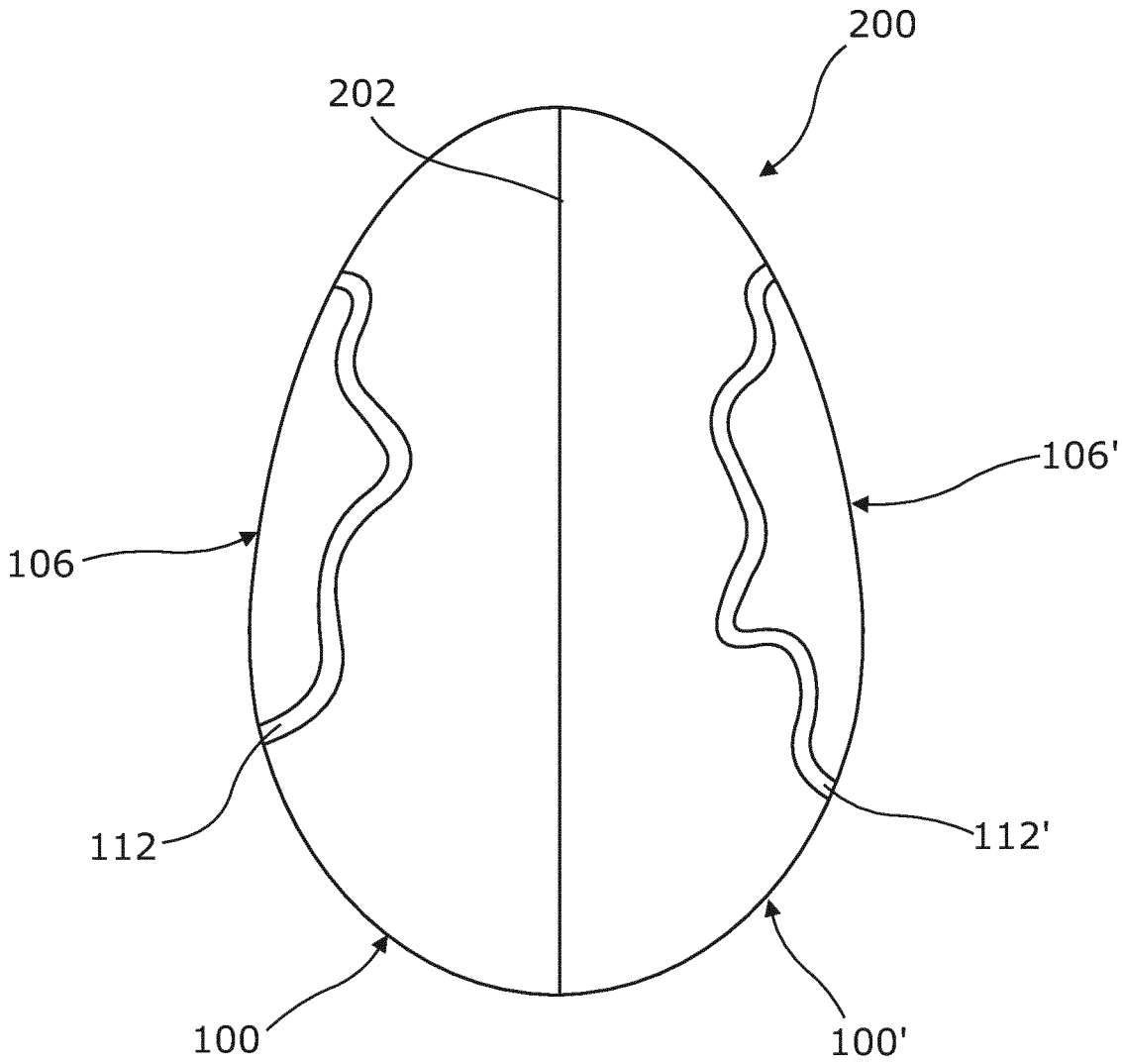


Fig. 3

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2020/061099

A. CLASSIFICATION OF SUBJECT MATTER
INV. A23G1/54 A23G3/54 A23G9/48
ADD.

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)
A23G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, FSTA, WPI Data

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[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents :

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"E" earlier application or patent but published on or after the international filing date

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"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

"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

"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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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
31 July 2020	12/08/2020

Name and mailing address of the ISA/	Authorized officer
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Form PCT/ISA/210 (second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

International application No
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