(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
25 September 2014 (25.09.2014)

WIPO | PCT

(10) International Publication Number
WO 2014/153573 A1

(51) International Patent Classification:
A47J 37/06 (2006.01)

(21) International Application Number:
PCT/ZA2014/000010

(22) International Filing Date:
19 March 2014 (19.03.2014)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

2013/02096	20 March 2013 (20.03.2013)	ZA
2013/03143	30 April 2013 (30.04.2013)	ZA
2013/04106	5 June 2013 (05.06.2013)	ZA

(72) Inventor; and
(71) Applicant : **MALOPE-MATSHIKA, Maphefo Coronation** [ZA/ZA]; 12824 Tau Street, Daveyton 1520 (ZA).

(74) Agent: **SIBANDA & ZANTWIJK**; PO Box 1615, Houghton 2041, Johannesburg, Gauteng (ZA).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *of inventorship (Rule 4.17(iv))*

Published:

— *with international search report (Art. 21(3))*

— *with amended claims (Art. 19(1))*

WO 2014/153573 A1

(54) **Title**: COOKING DEVICE

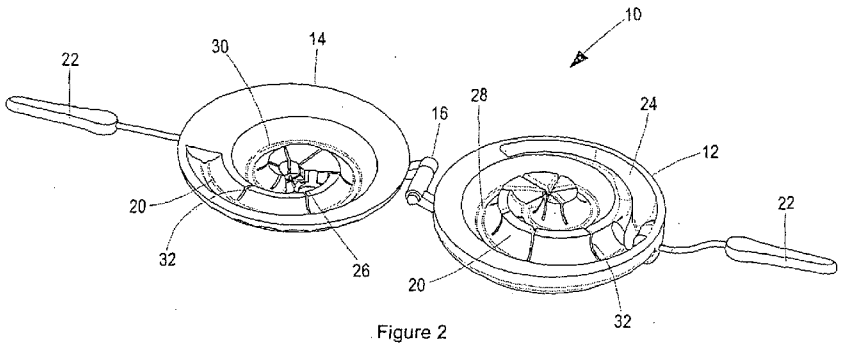

Figure 2

(57) **Abstract**: Cooking device (10) for cooking coiled foodstuff (1 8), includes: (i) a first cooking plate (12); (ii) a second cooking plate (14); and (iii) a hinge (16) that guides the cooking plates between a closed position in which the cooking plates are substantially in overlapping configuration relative to each other and an open position in which the cooking plates diverge, in use, to permit a user access to foodstuff (18) located between the cooking plates, characterized in that each cooking plate defines a spiral groove (20) such that, when the cooking plates are in the closed position, the spiral groove (20) defined by the first cooking plate (12) is aligned with the spiral groove (20) defined by the second cooking plate (14).

COOKING DEVICE

BACKGROUND

The present invention relates to a cooking device. More specifically, the present invention relates to a cooking device for cooking a coiled sausage.

Cooking / grilling devices are known. The most popular grilling device is marketed under the brand GEORGE FOREMAN GRILL and patented as US5,606,905 "Device for cooking Foodstuffs" by Boehm *et al*. It is known for a cooking plate to define cavities or grooves for receiving foodstuff of a specific shape. For instance, US8,232,510 "Grilling device for properly and uniformly cooking foodstuffs" by Addresso *et al* describes a grill with upper and lower cooking plates, each cooking plate defining a series of elongate, slightly curved cavities for partially receiving a frankfurter therein. Similarly, US2,044,615 "Combined roll and frankfurter electric toasting device" to Kennedy describes a grill with a first series of linear cavities for receiving frankfurters therein and a second series of larger diameter linear cavities for receiving rolls therein.

A drawback of known grills with cooking plates that define cavities is that they are not suited to receive and cook a coiled sausage.

It is an object of the present invention to provide a cooking device that is specifically suited to cooking a coiled sausage, and that drains away fats and oils expressed by the sausage during the cooking process.

SUMMARY OF THE INVENTION

According to a preferred embodiment of the present invention, a cooking device includes:

first cooking plate;

a second cooking plate; and

a hinge that guides the cooking plates between a closed position in which the cooking plates are substantially in overlapping configuration relative to each other and an open position in which the cooking plates diverge, in use, to permit a user access to foodstuff located between the cooking plates,

characterized in that each cooking plate defines a spiral groove such that, when the cooking plates are in the closed position, the spiral groove defined by the first cooking plate is aligned with the spiral groove defined by the second cooking plate.

Typically, in respect of each of the spiral grooves defined by the first and second cooking plates, a first end of the spiral groove is radially closer to the spiral axis than the second end, and, as the spiral groove rotates about the spiral axis from the first end to second end, the spiral groove translates in a first direction parallel to the spiral axis.

Generally, each spiral groove defined by the first and second cooking plates is a hemispherical spiral, a domical spiral or a conical spiral.

Preferably, the first cooking plate is convex and the second cooking plate is concave.

Typically, when the cooking plates are in the closed position, the first cooking plate nests substantially within the second cooking plate.

Generally, the first cooking plate is dome-shaped, hemi-spherical or conical-shaped.

Preferably, the spiral grooves spiral outwards from near the centre of each of the first and second cooking plates.

Typically, the first and second cooking plates are circular in cross section orthogonal to the spiral axes of the grooves defined by the first and second cooking plates, respectively.

Generally, the cooking device further includes a first handle extending from the first cooking plate.

Preferably, the cooking device further includes a second handle extending from the second cooking plate, for moving the first and second cooking plates between the closed and open positions.

Typically, the first cooking plate is, in use, located below the second cooking plate.

Generally, the spiral groove defined by the first cooking plate and the spiral groove defined by the second cooking plate are in cross section orthogonal to their longitudinal axis in the shape of a half circle.

Preferably, the spiral grooves defined by the first and second cooking plates have a diameter between one of: (i) 18mm to 25mm; and (ii) 30mm to 40mm. More preferably, the spiral grooves defined by the first and second cooking plates have a diameter between one of: 19mm, 22mm, 26mm, 28mm, 32mm and 38mm. Even more preferably, the spiral grooves defined by the first and second cooking plates have a diameter between 30mm and 35mm.

The spiral grooves defined by the first and second cooking plates, when in the closed position, may, in cross section to the longitudinal axis of such grooves be oval in shape.

Typically, the first cooking plate defines a reservoir into which the second end of the spiral groove defined by the first cooking plate, in use, discharges oil and fat expressed by a sausage.

Generally, the second cooking plate defines a vent aperture at or near the first end of the spiral groove defined by the second cooking plate.

Preferably, (i) the first cooking plate defines a fluid groove that runs along the operative bottom of the spiral groove defined by the first cooking plate, for, in use, conveying fluid therealong towards the second end of the spiral groove defined by the first cooking plate; and (ii) the second cooking plate defines a vapour groove that runs along the operative top of the spiral groove defined by the second cooking plate, for, in use, conveying vapour therealong towards the first end of the spiral groove defined by the second cooking plate.

Typically, (i) the first cooking plate defines at least one linear groove that extends radially relative to the spiral axis of the spiral groove defined by the first cooking plate, and intersects such spiral groove at at least two places; and (ii) the second cooking plate defines at least one linear groove that extends radially relative to the spiral axis of the

spiral groove defined by the second cooking plate, from the vent aperture and intersects such spiral groove at at least two places.

Optionally, the first cooking plate further defines a drainage channel that provides fluid communication between the second end of the spiral groove defined by the first cooking plate and either: (i) the reservoir defined by the first cooking plate; or (ii) the periphery of the first cooking plate. The end of the drainage channel distal the spiral groove may terminate in a spout.

According to a second embodiment of the present invention, the cooking device further includes at least one heating element for heating the first and second cooking plates.

Typically, a first heating element is secured to the back of the first cooking plate and a second heating element is secured to the back of the second cooking plate.

Generally, the first and second heating elements are in the shape of a coil.

The first and second heating elements may run between the spiral grooves defined by the first and second cooking plates, respectively. Alternatively, the first and second heating elements may run along the apex of the spiral grooves defined by the first and second cooking plates, respectively.

Preferably, the cooking device further includes a housing to which the cooking plates are secured.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will now be described in more detail, by way of examples only, with reference to the accompanying drawings in which:

Figure 1 is a perspective view of a cooking device according to a preferred embodiment of the invention, with the first and second cooking plates in the closed position;

Figure 2 is a perspective view of a cooking device according to a preferred embodiment of the invention, with the first and second cooking plates in the open position;

Figure 3 is a perspective view of the cooking device in Figure 1 with a coiled sausage located within the spiral groove defined by the first cooking plate;

Figure 4 is a plan view of the cooking device in Figure 1 with the first and second cooking plates in the open position;

Figure 5 is a cross-sectional view of the cooking device in Figure 1 through section A-A, with the first and second cooking plates in the open position;

Figure 6 is a perspective view of a cooking device according to a second embodiment of the invention, with the first and second cooking plates in the open position; and

Figure 7 is a perspective view of a cooking device according to Figure 6 with the first and second cooking plates in the closed position.

DESCRIPTION OF THE INVENTION

With reference to Figures 1 to 5, a cooking device 10 according to a preferred embodiment of the invention includes a first cooking plate 12, a second cooking plate 14, and a hinge 16.

The cooking device 10 is specifically designed to grill coiled foodstuffs 18, such as a coiled sausage shown in Figure 3.

In use, the cooking device 10 is supported on a stove (not shown) with the first cooking plate 12 located below the second cooking plate 14.

The first and second cooking plates 12 and 14 are conical with a circular base. The apex of the cones may be rounded. Alternatively, the first and second cooking plates 12 and 14 could be hemi-spherical or dome-shaped. Preferably, the first and second cooking plates

12 and 14 have surfaces that are, in use, inclined by either: (i) between 5 and 20 degrees; or (ii) between 10 and 50 degrees to the horizontal.

The first cooking plate 12 is convex, whereas the second cooking plate 14 is concave of corresponding dimensions so as to permit the first cooking plate 12 to nest substantially within the second cooking plate 14.

Each of the first and second cooking plates 12 and 14 define a spiral groove 20 that radiates outwards from near the centre of the cooking plates 12 and 14 – a first end of each spiral groove 20 being radially closer to the spiral axis A-A than the second end of the spiral groove 20. Each spiral groove 20 is in cross section orthogonal to its longitudinal axis half-circular in shape with a diameter between 18mm and 25mm; or 30mm to 40mm. More specifically, the spiral grooves 20 have a diameter of between 30mm and 35mm. Even more specifically, the spiral grooves 20 could have a diameter of 19mm, 22mm, 26mm, 28mm, 32mm or 38mm.

The hinge 16 guides the cooking plates 12 and 14 between a closed position (shown in Figures 1 and 5) in which the cooking plates 12 and 14 are substantially in overlapping configuration relative to each other, and an open position (shown in Figures 2 to 4) in which the cooking plates 12 and 14 diverge / splay, in use, to permit a user (not shown) access to foodstuff 18 located between the cooking plates 12 and 14 (as shown in Figure 3).

Since the grooves 20 are defined by concave and convex cooking plates 12 and 14, as the spiral grooves 20 rotate about their spiral axis A-A shown in Figure 5 from the first end to the second end, the spiral grooves 20 translate in a first direction parallel to the spiral axis A-A. In other words, in use, when the first and second cooking plates 12 and 14 are in the closed position, the spiral grooves 20 defined by the first and second cooking plates 12 and 14 have a negative gradient along their entire length from their first ends to their second ends. As such, the spiral groove 20 defined by both the first and second cooking plates 12 and 14 is a hemispherical spiral, a domical spiral or a conical spiral. Figures 1 to 5 show the spiral grooves 20 in the form of a conical spiral.

When in the closed position, the spiral grooves 20 defined by the first and second cooking plates 12 and 14 align such that the spiral groove 20 defined by the first cooking plate 12 extends into the spiral groove 20 defined by the second cooking plate 14. This is best

shown in Figure 5. In this configuration, the spiral grooves 20 defined by the first and second cooking plates 12 and 14 define a cavity substantially circular in cross section.

First and second handles 22 are secured to the first and second cooking plates 12 and 14, which handles 22 can be used to lever the cooking plates 12 and 14 between the open and closed positions.

The first cooking plate 12 also defines a reservoir 24 into which the second end of the spiral groove 20 defined by the first cooking plate 12, in use, discharges oil and fat expressed by a foodstuff 18.

The second cooking plate 14 defines a vent aperture 26 at or near the first end of the spiral groove 20. In use, this vent aperture 26 permits hot vapour to exit the grooves 20 defined by the first and second cooking plates 12 and 14. This reduces the degree to which the foodstuff 18 cooked within the cooking device 10 is steam cooked by such vapour.

Furthermore, the first cooking plate 12 defines a fluid groove 28 that runs along the operative bottom of the spiral groove 20 defined by the first cooking plate 12. In use, the fluid groove 28 conveys fluid (e.g. oil and fat expressed by foodstuff 18) therealong, towards the second end of the spiral groove 20 defined by the first cooking plate 12 and into the reservoir 24.

Similarly, the second cooking plate 14 defines a vapour groove 30 that runs along the operative top of the spiral groove 20 defined by the second cooking plate 14. In use, the vapour groove 30 conveys vapour therealong towards the first end of the spiral groove 20 defined by the second cooking plate 14, in order for the vapour to exit the cooking device 10 via the vent aperture 26.

To provide a short-cut for vapour traveling along the spiral groove 20 defined by the second cooking plate 14 towards the first end of such spiral groove 20, the second cooking plate 14 defines at least one linear groove 32 that extends radially relative to the spiral axis A-A of the spiral groove 20 defined by the second cooking plate 14, from near the vent aperture 26 and intersects such spiral groove 20 at at least two places.

Similarly, to provide a short-cut for fluid (e.g. oil and fat expressed by foodstuff 18) traveling along the spiral groove 20 defined by the first cooking plate 12 towards the

second end of such spiral groove 20, the first cooking plate 12 defines at least one linear groove 32 that extends radially relative to the spiral axis A-A of the spiral groove 20 defined by the first cooking plate 12, and intersects such spiral groove 20 at at least two places.

In use, the cooking plates 12 and 14 of the cooking device 10 are moved to the open position shown in Figures 2 to 4 and a sausage 18 is inserted into the spiral groove 20 defined by the first cooking plate 12, as shown in Figure 2. The cooking plates 12 and 14 are then moved to the closed position, as shown in Figures 1 and 5. The operative bottom of the first cooking plate 12 is placed on a stove (not shown) to heat the cooking device 10, which cooks the sausage 18. Oil and fat (not shown) expressed by the sausage 18 runs under the influence of gravity along the spiral groove 20 defined by the first cooking plate 12 towards the second end of such groove 20, whereupon such fluid enters and is stored in the reservoir 24.

When the sausage 18 has been cooked, the cooking plates 12 and 14 are moved towards the open position, and the sausage 18 is removed from the spiral groove 20 defined by the first cooking plate 12.

The cooking plates 12 and 14 may then be unhinged from each other and washed.

It will be appreciated that, although the spiral groove 20 defined by the first and second cooking plates 12 and 14 when in the closed position has been described as being circular, such grooves 20 could alternatively be oval in shape, with its operative vertical dimension slightly less than its operative horizontal dimension. The oval shape causes the first and second cooking plates 12 and 14 to "squeeze" the round sausage 18 within the spiral groove 20, and to maintain contact with such sausage 18 as it shrinks during the cooking process.

Turning to the second embodiment of the cooking device 110 shown in Figures 6 and 7, the first and second cooking plates 112 and 114 are similar to the first and second cooking plates 12 and 14 according to the preferred embodiment of the invention. However, the first cooking plate 112 does not define a reservoir. Instead, the first cooking plate 112 defines a drainage channel 134 that extends from or near the second end of the spiral groove 120 defined by the first cooking plate 112 towards the periphery of the first cooking plate 112, and terminates in a spout 136.

The cooking device 110 includes a housing 138, and heating elements (not shown) are located between each cooking plate 112 and 114 and the housing 138 for heating the cooking plates 112 and 114. Preferably, the heating element is in the form of a coil and is secured to the back of each cooking plate 112 and 114, between the spiral groove 120. Alternatively, the coil heating element could be secured to the apex of each spiral groove 120 (note: that the nadir of the spiral groove 120 on the front of the cooking plate 112 or 114 corresponds to the apex of the spiral groove 120 on the back of the cooking plate 112 or 114).

In use, the cooking plates 112 and 114 of the cooking device 110 are moved to the open position and a sausage 118 is inserted into the spiral groove 120 defined by the first cooking plate 112. The cooking plates 112 and 114 are then moved to the closed position. The heating elements heat the cooking plates 112 and 114, which in turn cooks the sausage 118. Oil and fat (not shown) expressed by the sausage 118 runs under the influence of gravity along the spiral groove 120 defined by the first cooking plate 112 towards the second end of such groove 120, whereupon the oil and fat is communicated by the drainage channel 134 towards the periphery of the first cooking plate 112, over the spout 136 and into a separate container (not shown).

After use, the first and second cooking plates 112 and 114 may be unclipped from the housing 138 and washed.

According to a third embodiment of the cooking device (not shown), the concave second cooking plate defines a central reservoir into which the central portion of the spiral groove, in use, drains oil and fat expressed by the sausage, should the cooking device be oriented with the second cooking plate below the first cooking plate. In this configuration, oil and fat expressed by the sausage drains along the spiral groove under the influence of gravity, towards the centre of the spiral groove 20 and into the central reservoir.

CLAIMS

1. A cooking device including:

a first cooking plate;

a second cooking plate; and

a hinge that guides the cooking plates between a closed position in which the cooking plates are substantially in overlapping configuration relative to each other and an open position in which the cooking plates diverge, in use, to permit a user access to foodstuff located between the cooking plates,

characterized in that each cooking plate defines a spiral groove such that, when the cooking plates are in the closed position, the spiral groove defined by the first cooking plate is aligned with the spiral groove defined by the second cooking plate.

2. A cooking device according to claim 1, wherein in respect of each of the spiral grooves defined by the first and second cooking plates, a first end of the spiral groove is radially closer to the spiral axis than the second end, and, as the spiral groove rotates about the spiral axis from the first end to second end, the spiral groove translates in a first direction parallel to the spiral axis.

3. A cooking device according to claim 2, wherein each spiral groove defined by the first and second cooking plates is a hemispherical spiral, a domical spiral or a conical spiral.

4. A cooking device according to claim 3, wherein the first cooking plate is convex and the second cooking plate is concave.

5. A cooking device according to claim 4, wherein, when the cooking plates are in the closed position, the first cooking plate nests substantially within the second cooking plate.

6. A cooking device according to claim 5, wherein the first cooking plate is dome-shaped, hemi-spherical or conical-shaped.

7. A cooking device according to claim 6, wherein the spiral grooves spiral outwards from near the centre of each of the first and second cooking plates.

8. A cooking device according to claim 7, wherein the first and second cooking plates are circular in cross section orthogonal to the spiral axes of the grooves defined by the first and second cooking plates, respectively.

9. A cooking device according to claim 8, further including a first handle extending from the first cooking plate.

10. A cooking device according to claim 9, further including a second handle extending from the second cooking plate, for moving the first and second cooking plates between the closed and open positions.

11. A cooking device according to claim 10, wherein the first cooking plate is, in use, located below the second cooking plate.

12. A cooking device according to claim 11, wherein the spiral groove defined by the first cooking plate and the spiral groove defined by the second cooking plate are in cross section orthogonal to their longitudinal axis in the shape of a half circle.

13. A cooking device according to claim 12, wherein the spiral grooves defined by the first and second cooking plates have a diameter between one of: (i) 18mm to 25mm; and (ii) 30mm to 40mm.

14. A cooking device according to claim 12, wherein the spiral grooves defined by the first and second cooking plates have a diameter between one of: 19mm, 22mm, 26mm, 28mm, 32mm and 38mm.

15. A cooking device according to claim 12, wherein the spiral grooves defined by the first and second cooking plates have a diameter between 30mm and 35mm.

16. A cooking device according to claim 13, wherein the spiral grooves defined by the first and second cooking plates, when in the closed position, in cross section to the longitudinal axis of such grooves are oval in shape.

17. A cooking device according to claim 13, wherein the first cooking plate defines a reservoir into which the second end of the spiral groove defined by the first cooking plate, in use, discharges oil and fat expressed by a sausage.

18. A cooking device according to claim 17, wherein, the second cooking plate defines a vent aperture at or near the first end of the spiral groove defined by the second cooking plate.

19. A cooking device according to claim 18, wherein: (i) the first cooking plate defines a fluid groove that runs along the operative bottom of the spiral groove defined by the first cooking plate, for, in use, conveying fluid therealong towards the second end of the spiral groove defined by the first cooking plate; and (ii) the second cooking plate defines a vapour groove that runs along the operative top of the spiral groove defined by the second cooking plate, for, in use, conveying vapour therealong towards the first end of the spiral groove defined by the second cooking plate.

20. A cooking device according to claim 19, wherein: (i) the first cooking plate defines at least one linear groove that extends radially relative to the spiral axis of the spiral groove defined by the first cooking plate, and intersects such spiral groove at at least two places; and (ii) the second cooking plate defines at least one linear groove that extends radially relative to the spiral axis of the spiral groove defined by the second cooking plate, from the vent aperture and intersects such spiral groove at at least two places.

21. A cooking device according to claim 20, wherein the first cooking plate further defines a drainage channel that provides fluid communication between the second end of the spiral groove defined by the first cooking plate and either: (i) the reservoir defined by the first cooking plate; or (ii) the periphery of the first cooking plate.

22. A cooking device according to claim 21, wherein the end of the drainage channel distal the spiral groove terminates in a spout.

23. A cooking device according to claim 22, further including at least one heating element for heating the first and second cooking plates.

24. A cooking device according to claim 23, wherein a first heating element is secured to the back of the first cooking plate and a second heating element is secured to the back of the second cooking plate.

25. A cooking device according to claim 24, wherein the first and second heating elements are in the shape of a coil.

26. A cooking device according to claim 25, wherein the first and second heating elements run between the spiral grooves defined by the first and second cooking plates, respectively.

27. A cooking device according to claim 26, wherein the first and second heating elements run along the apex of the spiral grooves defined by the first and second cooking plates, respectively.

28. A cooking device according to claim 26 or claim 27, wherein the cooking device further includes a housing to which the cooking plates are secured.

AMENDED CLAIMS
received by the International Bureau on 26.mAY.2014 (26.05.2014)

1. A cooking device including:

a first cooking plate that defines a spiral groove; and

a second cooking plate;

the first and second cooking plates being movable between a closed position in which the cooking plates are substantially in overlapping configuration relative to each other and an open position in which the cooking plates are separated, in use, to permit a user access to foodstuff located between the cooking plates,

characterized in that, in respect of the spiral groove defined by the first cooking plate, a first end of the spiral groove is radially closer to the spiral axis than the second end, and, as the spiral groove rotates about the spiral axis from the first end to second end, the spiral groove translates in a first direction parallel to the spiral axis.

2. A cooking device according to claim 1, wherein the second cooking plate defines a spiral formation.

3. A cooking device according to claim 2, wherein the spiral groove defined by the first cooking plate is aligned with the spiral formation defined by the second cooking plate when the first and second cooking plates are in the closed position.

4. A cooking device according to claim 3, wherein, in respect of the spiral formation defined by the second cooking plate, a first end of the spiral formation is radially closer to the spiral axis than the second end, and, as the spiral formation rotates about the spiral axis from the first end to second end, the spiral formation translates in a first direction parallel to the spiral axis.

5. A cooking device according to claim 4, wherein the spiral formation defined by the second cooking plate is a spiral groove.

6. A cooking device according to claim 5, further including a hinge that guides the first and second cooking plates between the open and closed positions.

7. A cooking device according to claim 6, wherein each spiral groove defined by the first and second cooking plates is a hemispherical spiral, a domical spiral or a conical spiral.

8. A cooking device according to claim 7, wherein the first cooking plate is convex and the second cooking plate is concave.

9. A cooking device according to claim 8, wherein, when the cooking plates are in the closed position, the first cooking plate nests substantially within the second cooking plate.

10. A cooking device according to claim 9, wherein the first cooking plate is dome-shaped, hemi-spherical or conical-shaped.

11. A cooking device according to claim 10, wherein the spiral grooves spiral outwards from near the centre of each of the first and second cooking plates.

12. A cooking device according to claim 11, wherein the first cooking plate is, in use, located below the second cooking plate.

13. A cooking device according to claim 12, wherein the spiral groove defined by the first cooking plate and the spiral groove defined by the second cooking plate are in cross section orthogonal to their longitudinal axis in the shape of a half circle.

14. A cooking device according to claim 13, wherein the spiral grooves defined by the first and second cooking plates have a diameter between one of: (i) 18mm to 25mm; and (ii) 30mm to 40mm.

15. A cooking device according to claim 13, wherein the spiral grooves defined by the first and second cooking plates have a diameter between one of: 19mm, 22mm, 26mm, 28mm, 32mm and 38mm.

16. A cooking device according to claim 13, wherein the spiral grooves defined by the first and second cooking plates have a diameter between 30mm and 35mm.

AMENDED SHEET (ARTICLE 19)

17. A cooking device according to claim 14, wherein the spiral grooves defined by the first and second cooking plates, when in the closed position, in cross section to the longitudinal axis of such grooves are oval in shape.

18. A cooking device according to claim 14, wherein the first cooking plate defines a reservoir into which the second end of the spiral groove defined by the first cooking plate, in use, discharges oil and fat expressed by a sausage.

19. A cooking device according to claim 18, wherein, the second cooking plate defines a vent aperture at or near the first end of the spiral groove defined by the second cooking plate.

20. A cooking device according to claim 19, wherein: (i) the first cooking plate defines a fluid groove that runs along the operative bottom of the spiral groove defined by the first cooking plate, for, in use, conveying fluid therealong towards the second end of the spiral groove defined by the first cooking plate; and (ii) the second cooking plate defines a vapour groove that runs along the operative top of the spiral groove defined by the second cooking plate, for, in use, conveying vapour therealong towards the first end of the spiral groove defined by the second cooking plate.

21. A cooking device according to claim 20, wherein: (i) the first cooking plate defines at least one linear groove that extends radially relative to the spiral axis of the spiral groove defined by the first cooking plate, and intersects such spiral groove at at least two places; and (ii) the second cooking plate defines at least one linear groove that extends radially relative to the spiral axis of the spiral groove defined by the second cooking plate, from the vent aperture and intersects such spiral groove at at least two places.

22. A cooking device according to claim 21, wherein the first cooking plate further defines a drainage channel that provides fluid communication between the second end of the spiral groove defined by the first cooking plate and either: (i) the reservoir defined by the first cooking plate; or (ii) the periphery of the first cooking plate.

23. A cooking device according to claim 22, wherein the end of the drainage channel distal the spiral groove terminates in a spout.

24. A cooking device according to claim 23, further including at least one heating element for heating the first and second cooking plates.

25. A cooking device according to claim 24, wherein a first heating element is secured to the back of the first cooking plate and a second heating element is secured to the back of the second cooking plate.

26. A cooking device according to claim 25, wherein the first and second heating elements are in the shape of a coil.

27. A cooking device according to claim 26, wherein the first and second heating elements run between the spiral grooves defined by the first and second cooking plates, respectively.

28. A cooking device according to claim 27, wherein the first and second heating elements run along the apex of the spiral grooves defined by the first and second cooking plates, respectively.

29. A cooking device according to claim 27 or claim 28, wherein the cooking device further includes a housing to which the cooking plates are secured.

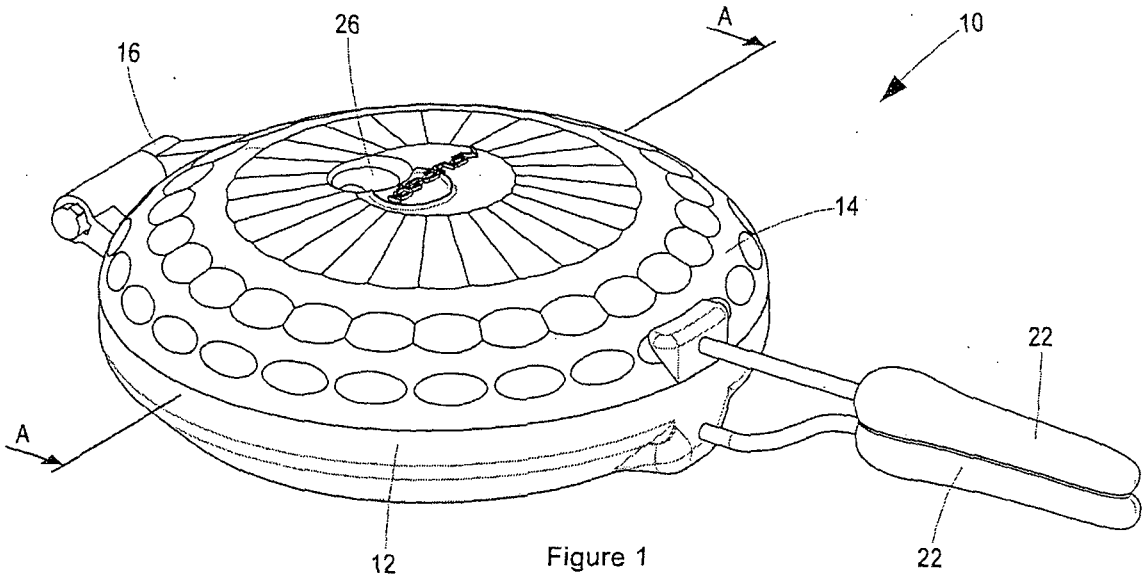

Figure 1

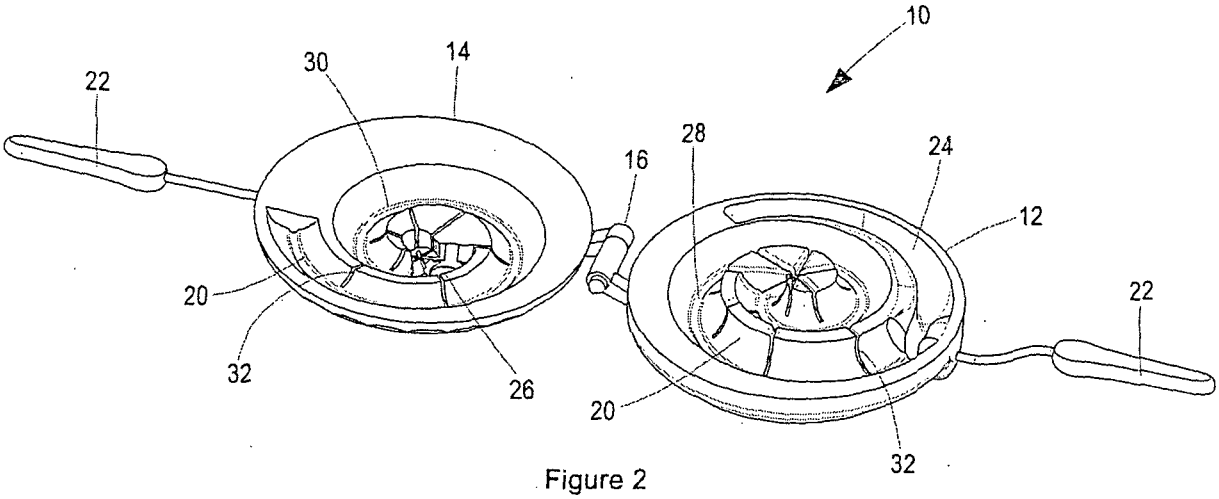

Figure 2

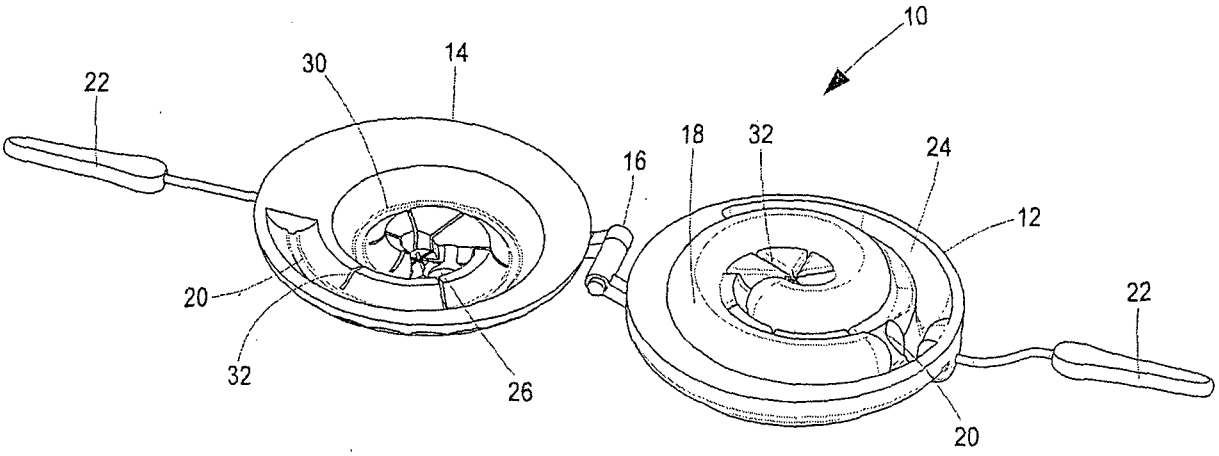

Figure 3

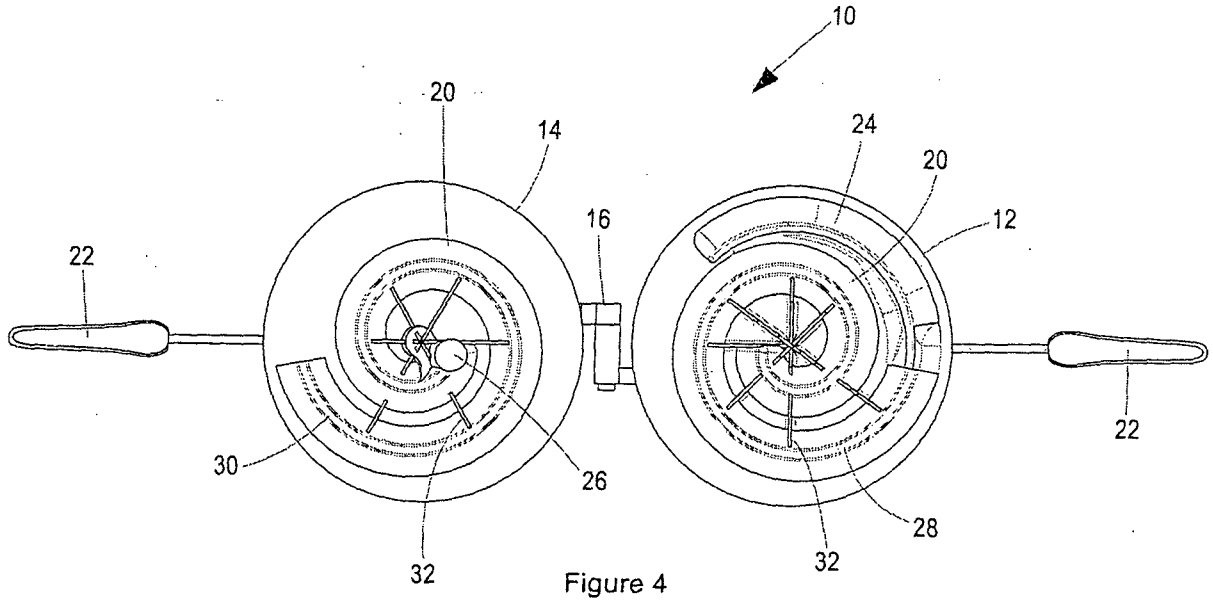

Figure 4

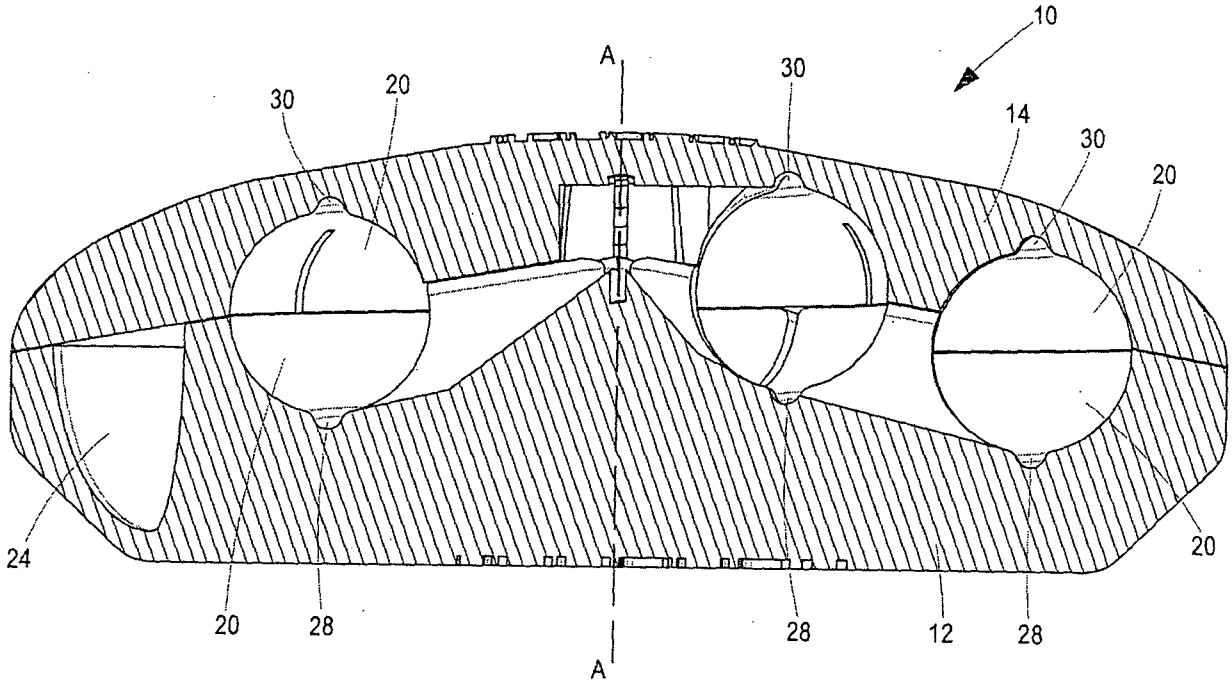

Figure 5

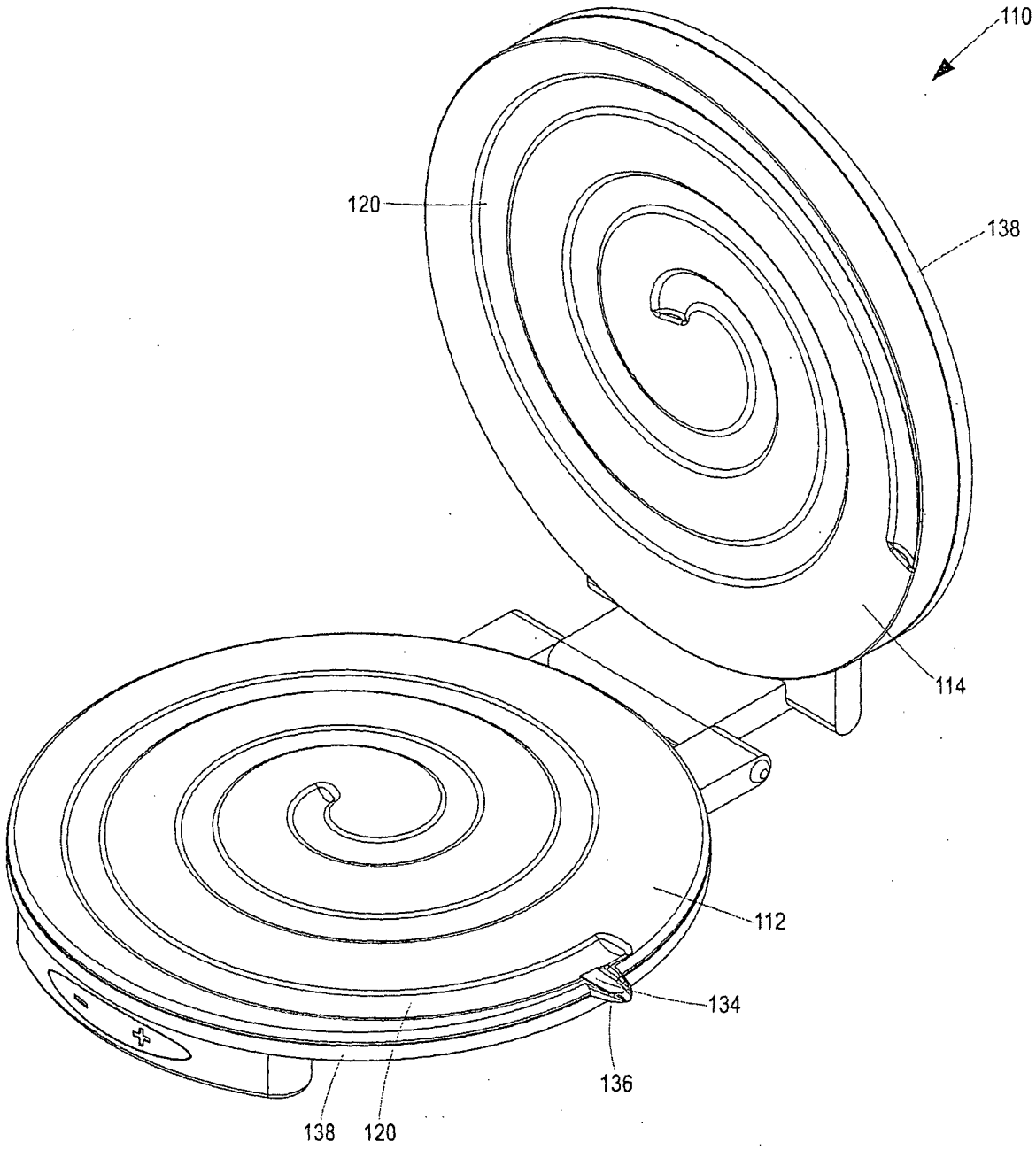

Figure 6

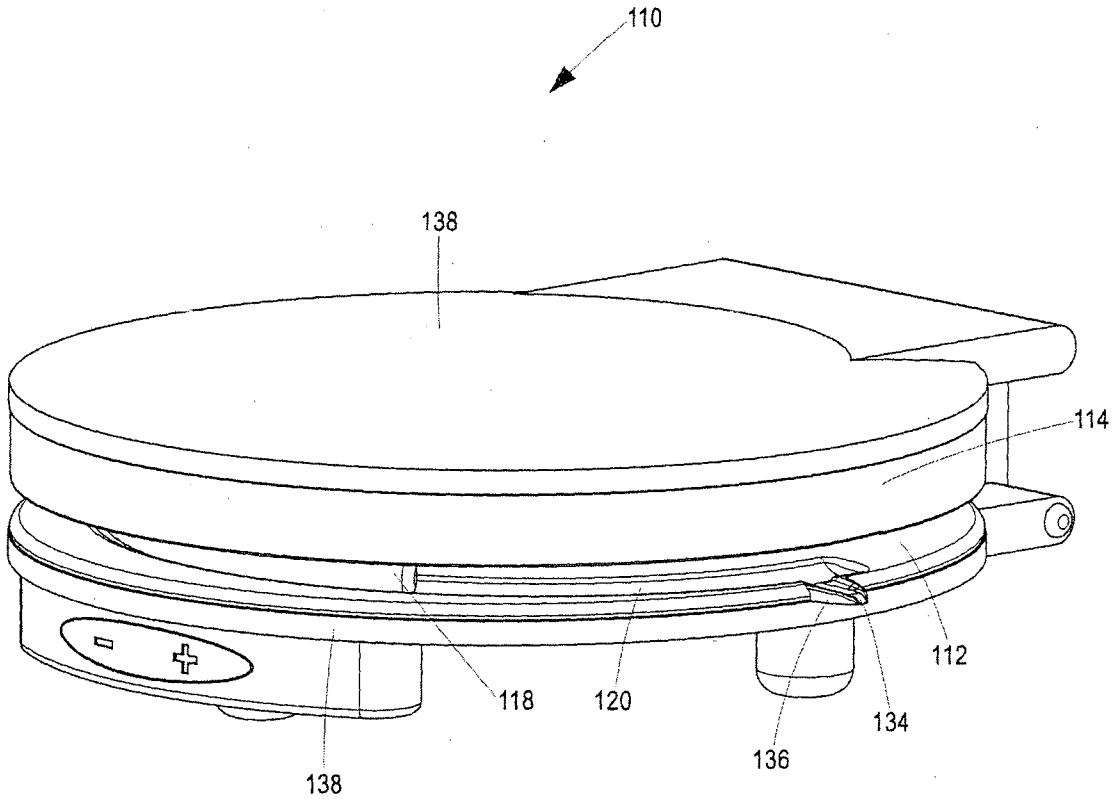

Figure 7

INTERNATIONAL SEARCH REPORT

International application No.

PCT / ZA 2014/000010

A. CLASSIFICATION OF SUBJECT MATTER

IPC: ***A47J 37/06*** (2006.01)

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)

A47J

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)

WPI, EPODOC, Fulltext

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2008196595 A1 (KRISHNAN et al.) 21 August 2008 (21.08.2008) paragraph [0062]	1
A	US 2011062141 A1 (ADDESSO et al.) 17 March 2011 (17.03.2011) figure 4, claim 16	1-28
A	GB 2404845 A (BRETT ANSTEE et al.) 16 February 2005 (16.02.2005) claims	1-28
A	US 5671658 A (MACASAET) 30 September 1997 (30.09.1997) claims	1-28
A	GB 2488998 A (GARY DAVID ARCHDALE) 19 September 2012 (19.09.2012) the whole document	1-28

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

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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

"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)

"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

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
14 May 2014 (14.05.2014)	21 May 2014 (21.05.2014)
Name and mailing address of the ISA/AT Austrian Patent Office Dresdner Straße 87, A-1200 Vienna Facsimile No. +43 / 1 / 534 24-535	Authorized officer MOSSER R. Telephone No. +43 / 1 / 534 24-437

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT / ZA 2014/000010

Patent document cited in search report			Patent family member(s)			Publication date
US	A1	2008196595	GB	A	2459371	2009-10-28
			MY	A	144991	2011-12-15
			CN	A	101612002	2009-12-30
			SG	A1	156597	2009-11-26
			US	A1	2013036915	2013-02-14
			CA	A1	2663606	2009-10-24
			AU	A1	2009201576	2009-11-12
			US	A1	2008196595	2008-08-21
US	A1	2011062141	WO	A2	2011032136	2011-03-17
			US	A1	2011062141	2011-03-17
GB	A	2404845	GB	A	2404845	2005-02-16
US	A	5671658	US	A	5671658	1997-09-30
GB	A	2488998	GB	A	2488998	2012-09-19