Case No: A3/2014/1208

Neutral Citation Number: [2014] EWCA Civ 1629
IN THE COURT OF APPEAL (CIVIL DIVISION)
ON APPEAL FROM THE HIGH COURT OF JUSTICE
CHANCERY DIVISION
PATENTS COURT
THE HONOURABLE MR JUSTICE ARNOLD
HC12A03904

Royal Courts of Justice Strand, London, WC2A 2LL

Date: 17/12/2014

Before:

LORD JUSTICE VOS LORD JUSTICE BURNETT

and

SIR TIMOTHY LLOYD

Between:

JARDEN CONSUMER SOLUTIONS (EUROPE)

- and -SEB SA Claimant/

Appellant

Defendant/

Part 20 Claimant/ Respondent

GROUPE SEB UK LIMITED

Part 20 Claimant/ Respondent

Mr Andrew Lykiardopoulos QC and Mr Graham Burnett-Hall (instructed by Marks & Clerk Solicitors LLP) for the Appellant
Mr Benet Brandreth (instructed by Bird & Bird LLP) for the Respondents

Hearing dates: 4^{th} and 5^{th} December 2014

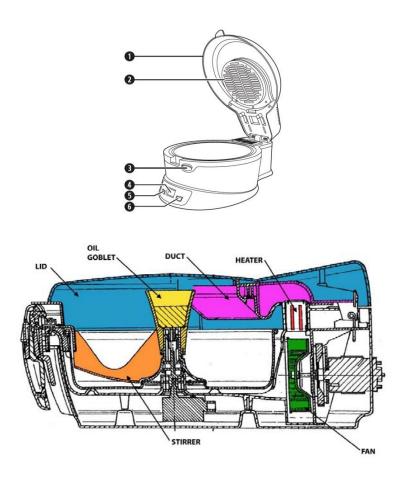
Judgment

Lord Justice Vos:

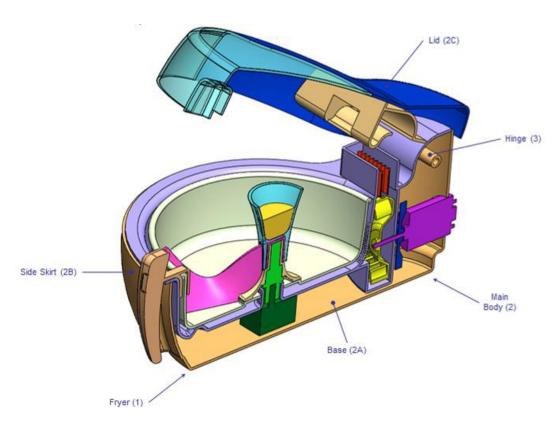
- 1. This appeal concerns food frying machines, or more particularly "dry fryers". The European Patent EP 2 085 003 B1 (the "Patent") in issue is entitled in translation "a fryer with automatic fat coating"; it had an unchallenged priority date of 8th June 2004 and a filing date of 8th June 2005. The defendant and 1st Part 20 claimant, SEB SA, is the proprietor of the Patent. Groupe SEB UK Limited, the 2nd Part 20 claimant, claims to be the exclusive licensee under the Patent. The two SEB entities are referred to together in this judgment as "SEB".
- 2. The claimant, Jarden Consumer Solutions (Europe) Limited, ("Jarden") manufactures the Breville Halo Health Fryer (the "Halo"), which competes with SEB's product, namely the Tefal Actifry fryer (the "Actifry").
- 3. On 28th February 2014, Arnold J delivered judgment deciding that claims 1, 3 and 8 of the Patent were invalid, that claims 1 and 3 would have been infringed if they had been valid, and that claims 10, 11 and 13 were valid and had been infringed. SEB do not appeal the findings of invalidity as to claims 1, 3 and 8. But Jarden appeals the judge's construction of the Patent and the finding of infringement of claims 10, 11, and 13, with the permission of the judge.
- 4. Stripped of all complexity, the Patent concerns an apparatus for frying food, particularly chips, that involves the use of only a small quantity of oil, by automatically stirring and turning (or "mingling" in the terminology of the Patent) the food so as to coat it in a thin film of oil or fat and cooking it (at least in the preferred embodiment) by a directed flow of heat. The main features of the apparatus that accomplish this, which are relevant to this case, according to the Patent, are:
 - i) "the main body 2" which is provided with a "lid 2C", forming a closed box in co-operation with "the side skirt 2B", and "the base 2A";
 - ii) "a receiver means 5" or receptacle, which is substantially sealed against liquids, designed to contain both the food and the fat;
 - iii) "a stirrer means 6" with "a blade 16" designed to move with respect to the receiver means, so as to mingle and stir the food and fat;
 - iv) "a main heater means 24" to generate a "flow of heat 25" orientated so as to strike the food directly.
- 5. Jarden's primary contention is that the judge misinterpreted the term "the main body" as including the lid of the fryer. One of its main contentions is that the judge wrongly made use of identifying numerals in the Patent to construe its meaning. Jarden says that its Halo fryer does not infringe the Patent, properly construed, because the Halo's heater is entirely located in its lid, whereas the specification of the Patent shows (and the Actifry actually has) only the ducts directing the heat in the lid. There is a subsidiary appeal by Jarden based on the contention that the judge was wrong to hold that claims 10, 11, 13 and 15 were not obvious over the prior art in "Vogt", a German Patent No. P 21 02 062.2 entitled "Method and device for cooking food" filed on 16th January 1971 and published on 27th July 1971. That part of the appeal is brought with permission granted by Kitchin LJ on 7th May 2014. Jarden maintains, as part of the

latter point, that its Halo fryer does not infringe, because claim 3 (on which claims 10, 11 and 13 are dependent) requires that "the lid together with the main body form a substantially sealed chamber"; and the Halo fryer has a 2.3mm gap around its circumference between the body and the lid, so that it should not be regarded as "substantially sealed".

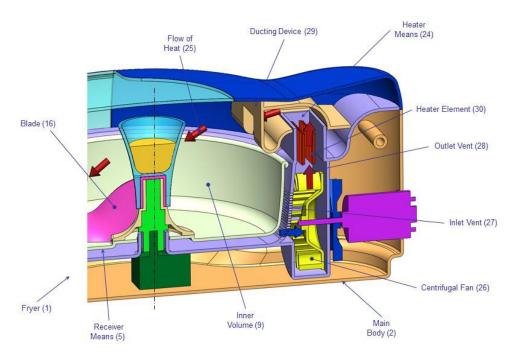
6. The structure of the Halo and of the preferred embodiment of the Patent can be more easily understood by considering five diagrams. The first shows the Halo fryer and how its infrared heater is in its lid. The second is a coloured representation of Figure 2 of the Patent taken from Jarden's skeleton argument. The third, fourth and fifth are coloured diagrams taken from SEB's expert's report prepared by Mr Martin Nicholson ("Mr Nicholson"). The third is a coloured isometric model based on Figure 2 of the Patent, and the fourth is a CAD model demonstrating the "flow of heat" explained in the Patent. The fifth is Figure 2 from the Patent itself annotated in blue by Mr Nicholson, to which further reference will be needed in due course.



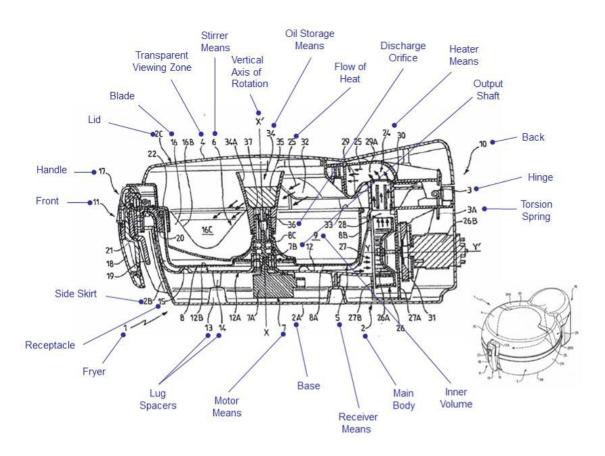
Jarden's coloured illustration of Figure 2 of the Patent



Mr Nicholson's 3D CAD isometric model based on Figure 2 of the Patent, showing the lid in an open position



Mr Nicholson's 3D CAD model demonstrating the "flow of heat"



Mr Nicholson's annotated version of Figure 2 of Patent

The Patent

- 7. The judge has set out the main elements of the Patent at paragraphs 21 to 35 and I do not intend to repeat that clear and comprehensive exposition in his judgment. Bearing in mind, however, the main dispute between the parties concerning the lid, I shall set out here the elements of the Patent that impact directly on the argument that has taken place on that issue.
- 8. Paragraph 2 of the Patent under the heading "Field of the Invention" says that "[t]he present invention relates to a fryer comprising a main body intended to accommodate food for frying within it".
- 9. Paragraphs 31-38 then include the following:-
 - "[0031] The fryer 1 of the invention comprises, in conventional manner, a main body 2 intended to accommodate food to be fried (not shown)."
 - [0032] As can be seen in Figures 1 and 2, the main body 2 comprises a base 2A" and that "starting from the base 2A intended to form a footing for the fryer 1, and shaped to rest in a stable manner on a horizontal surface or support.
 - [0033] Starting from the base 2A and at its periphery is a side skirt 2B formed, for example, from metal or from plastics material and forming the outer envelope of the fryer 1 ...

[0034] Advantageously, the main body 2 is provided with a lid 2C movably mounted between a closed position (shown in Figure 1) in which the lid 2C together with the main body 2 form a substantially sealed chamber around the food to be fried, and an open position (not shown) allowing food to be fried to be introduced into the main body 2. In other words, the lid 2C forms a closed box in cooperation with the side skirt 2B and the base 2A, which is preferably substantially hermetically sealed, allowing cooking to be carried out in a closed atmosphere. The substantially leaktight seal of the main body 2 by the lid 2C may, for example, be achieved using seals (not shown in the Figures).

[0035] As can be seen in Figures 1 and 2, the lid 2C is advantageously mounted on the main body 2 by a pivotal resilient connection produced by a hinge 3 provided with a torsion spring 3A so that the open position of the lid 2C is also a return position. ...

[0036] Advantageously and as shown in Figure 1, the lid 2C may be provided with a transparent viewing zone 4 to allow frying progress inside the appliance to be viewed during the cooking cycle while the lid 2C is closed on the main body 2.

[0037] In accordance with a major feature of the invention, the fryer 1 comprises, mounted in the main body 2, a means for automatically coating food to be fried with a film of fat by mingling said food with the fat.

[0038] In other words, in contrast to prior art devices where the food is immersed in oil, the invention is based on the principle of frying carried out simply by coating the surface of the food with a thin layer of oil or any other suitable food grade fat. Thus, cooking is not carried out in a bath of oil, which implies the presence of a large quantity of fat surrounding all or part of the food, but because a small quantity of oil forms a thin substantially homogeneous coating on the surface of each piece of food placed in the main body 2."

10. The parts of the specification that relate to the heating means and cooking method at paragraphs 82-112 are also directly relevant to the issues in the appeal as follows:-

"[0082] The fat-coated food may be heated in the fryer 1 using any known internal (i.e. integrated into the fryer 1) or external (i.e. independent of the fryer 1) heater means provided that these heater means are designed and dimensioned to provide excellent heat exchange with the food, which is all the more important since cooking is not carried out in an oil bath but simply with a coating of oil.

[0083] Advantageously, the fryer 1 includes, mounted on the main body 2, a main heater means 24 provided to generate a flow of heat 25 which is orientated to strike at least part of the food in the main body 2 substantially directly.

[0084] The term 'main heater means' denotes a heater means which can of itself provide at least most of the contribution of the heat for cooking. Preferably, the main heater means 24 is designed and arranged to supply all of the heat.

[0085] The term flow of heat as used here denotes a directional stream of heat with a positively controlled dynamic character in contrast, for example, to a simple natural convection effect which can be obtained by purely static heating.

[0086] Because the flow of heat 25 is directed to be exerted directly without an intervening medium (such as the bottom of a receptacle, for example) onto the food present in the receptacle 8, this contributes to excellent heat exchange and, by cooperating with the film of oil present on the food, cooks in a manner which is substantially equivalent to that obtained in an oil bath but without the disadvantages of a bath.

[0087] Advantageously, the flow of heat 25 is a flow of hot air. However, the invention is not limited to a flow of hot air, and it is possible to envisage the flow of heat emanating from infrared heating, for example. Hot air heating is preferred, however, at least in the specific embodiment shown in the figures, since it produces better results compared with infrared heating, especially with food that has been cut up manually and has pieces of varying sizes and thicknesses.

[0088] Advantageously, the flow of hot air 25 is directed substantially towards the stirrer means, in this case the blade 16. ...

[0089] Advantageously, the hot air flow 25 is a recycled flow, i.e. the fryer 1 operates in a substantially closed environment, the air present inside the main body 2 being removed for heating and then propelled onto the food. Said propelled hot air cools in contact with the food and is removed again for reheating, and so on.

[0090] Advantageously, the main heater means 24 includes a centrifugal fan 26 generating an air flow by taking air from the main body 2 via at least one inlet vent 27, preferably arranged laterally with respect to the receptacle 8, and then discharging that air via at least one outlet vent 28 in a ducting device 29 which opens in the direction of and above the food present in the main body 2.

. . .

[0092] Advantageously, the main heater means 24 also includes a heater element 30 positioned in the air flow, preferably downstream of the outlet vent 28 in the direction of the flow, to transform the air flow into a flow of heat 25.

. . .

[0095] Advantageously, the flow of heat meets the food at a glancing angle (i.e. less than 45°). This technical disposition means that the ducting device can be arranged laterally in the appliance. This lateral guidance of hot air means that the lid can be lighter and that handling the appliance is easier while proper cooking is continued. Cleaning is also facilitated, as well as removal or positioning the cooking receptacle 8.

. . .

[0102] Advantageously, the assembly of the air circuit (which in particular comprises the fan 26, the heater element 30 and the ducting device 29) is designed and dimensioned so that the hot air flow 25 arrives at the food contained in the receptacle 8 at a speed which is substantially above 2 meters per second (m/s), preferably substantially 3 m/s or more ...

. . .

[0109] Advantageously, the fryer 1 of the invention forms, when operating (i.e. when the lid 2C is closed), a substantially closed cooking chamber around the

receiver means 5, i.e. preferably closed in a sealed manner, said chamber preferably being provided with a calibrated steam-releasing means (not shown).

- [0110] This measure can control the humidity prevailing in the chamber.
- [0111] To this end, the calibrated steam-releasing means are dimensioned so that:
- pressure cooking is avoided; this would occur if the chamber were to be completely sealed and could cause the fries to break up; and
- economic energy consumption is encouraged, since if too much steam escapes, this would result in a major dissipation of energy, which would mean that the heater element 30 would have to be over-dimensioned.
- [0112] Preferably, the calibrated steam-releasing means comprises a venting orifice (not shown), preferably disposed close to the inlet vent 27 of the fan 26, which allows controlled continuous evacuation of steam throughout the cooking cycle and controlled renewal of the air inside the chamber.

. . .

- [0120] Advantageously, the appliance of the invention 5 may include an orifice for filling the storage means 34 when the lid 2C closes the main body 2. This make-up orifice, which may be extended by a conduit is, for example, provided in the lid 2C or, more generally, in the main body 2. ..."
- 11. The relevant claims of the Patent were as follows, omitting reference numerals and inserting the integers used by the judge (and my own where he did not cite the claims in his judgment):-
 - "1.[A] Dry fryer comprising:
 - [B] a receiver means designed to contain both food and fat;
 - [C] a stirrer means for stirring food contained in the receiver means,
 - [D] the receiver means and the stirrer means being designed to be moved with respect to each other,

characterised in that

- [E] the receiver means is removably mounted inside a main body
- [F] and **in that** the receiver means and the stirrer means are designed to be moved with respect to each other inside the main body,
- [G] for automatically coating said food with a film of fat by mingling said food with fat inside said receiver means.
- 2.[A] Dry fryer according to claim 1,

characterised in that

- [B] it forms, when operating, a substantially closed cooking chamber.
- 3.[A] Dry fryer according to claim 1 or 2

characterised in that

- [B] the main body is provided with a lid movably mounted between
- [C] a closed position in which the lid together with the main body form a substantially sealed chamber around the food to be fried
- [D] and an open position allowing food to be fried to be introduced into the main body.
- 4. Dry fryer according to claim 3

characterised in that

it comprises a hinge for connecting the lid and the main body.

..

8.[A] Dry fryer according to any one of claims 1 to 6

characterised in that

- [B] the stirrer means is mounted in a position that is stationary relative to the main body
- [C] while the receiver means is mounted in rotation relative to both the main body and the stirrer means,
- [D] and is functionally connected to a motor means to be driven in rotation thereby.
- 9.[A] Dry fryer according to any one of claims 1 to 8

characterised in that

- [B] it comprises, mounted on the main body,
- [C] a main heater means by itself providing at least most of the contribution of the heat for cooking.
- 10.[A] Dry fryer according to claim 9

characterised in that

- [B] said main heater means is designed to generate a flow of heat
- [C] orientated so as to strike substantially directly at least a portion of the food.
- 11.[A] Dry fryer according to claim 9 or 10

characterised in that

[B] the main heater means is designed to generate a flow of heat above the receiver means.

12.[A] Dry fryer according to any one of claims 9 to 11

characterised in that

- [B] the main heater means is designed and arranged to supply all of the heat for cooking.
- 13.[A] Dry fryer according to claim 10

characterised in that

- [B] the flow of heat is either a flow of hot air or a flow of heat emanating from infrared heating.
- 14.[A] Dry fryer according to claim 13

characterised in that

- [B] the main heater means comprises a fan generating a flow of air
- [C] by sucking air from the main body via at least one inlet vent and discharging it via at least one outlet vent
- [C] into a ducting device opening in a direction above the food present in the main body
- [D] the main heater means also comprising a heater element positioned in the air flow, downstream from the outlet vent
- [E] to transform the air flow into a flow of heat."

Vogt

- 12. Again, the judge has described the Vogt patent in some detail at paragraphs 83-88, and I do not propose to repeat that exercise in this judgment. It discloses an invention that "allows ... removal of the constantly arising steam, so that dry, seared foods are the result" with the "mechanical turning of crumbly foods [making] it unnecessary to constantly watch the cooking process".
- 13. The following figures 1a and 1b show the preferred embodiment as follows:-

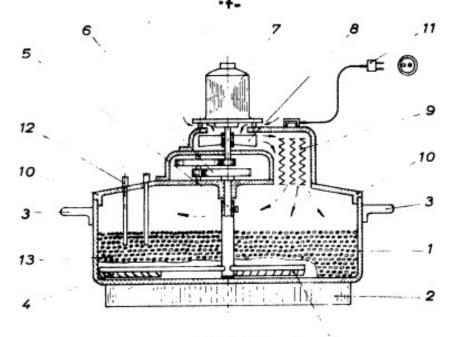


Fig.Ia

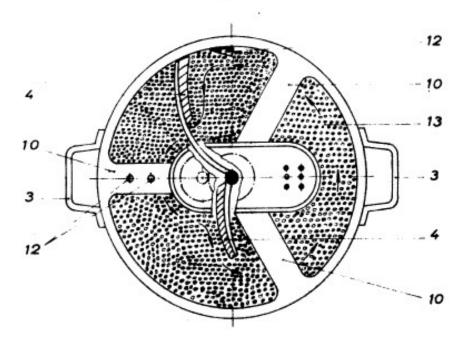


Fig. 1b

14. So far as heating and steam escape is concerned, the preferred embodiment is described as follows:-

"The container (1) resembles a pan or pot, preferably Teflon-coated on the inside, i.e., a vessel coated with tetrafluorethylene to contain the food being cooked. In use, it is placed on a hotplate (2) with several kilowatts of heating power. For easy handling of the vessel, two handles (3, 3) are provided. In the vessel are rotating scrapers (4, 4), fastened to the shaft (5) rotating at several revolutions per minute, which slide directly on the bottom of the vessel (1), somewhat slanting. These scrapers (4, 4) move the food (13) both in the radial direction (arrows) and also vertically. The shaft (5), in turn, is turned by a reduction gearing (6), which is placed in rotation by the motor (7). As the figure shows, two pinions are provided in order to reduce appropriately the high speed of the motor (7). Directly located on the shaft of the motor (7) are the blades of a fan (8), which draws in fresh air from a gap between the motor flange and the housing, heats it by a heating element (9), and transports it to the surface of the food being cooked (arrow direction 1), so as to blow away the steam arising there. The steam-saturated air escapes through openings, which as shown in Fig. 1b are located between the supporting and holding parts (10, 10) of the top structure, and motor (7), fan (8) and reduction gearing (6)."

15. Vogt then describes its mode of operation as follows:-

"The device is placed on the hotplate (2), where its bottom is heated. After adding grease, such as butter or bacon fat, if required, the crumbly food is added. In the example, this can be pieces of potato around a cubic centimeter in size, prepared from raw potatoes. At the same time, after inserting the plug (11) into the wall outlet, motor, fan and scraper are placed in motion and the heating element (9) starts to glow. The food is now moved radially and also lifted constantly from the bottom of the vessel, so that different parts always arrive at the heated bottom. At the same time, thanks to the fan (8), the air heated by the heating element (9) begins to flow over the material, both heating it and removing the escaping steam from it. The heating of the food can also be further promoted by mounting radiant heaters on the lid ..."

- 16. Vogt's relevant claims are as follows:-
 - "1.) Method for cooking of crumbly or semisolid foods (potatoes, meat balls, egg dishes, toast and so on) while supplying the cooking heat from heated top or bottom layers, characterized in that food pieces are constantly mechanically tossed during the cooking process and, if desired, the resulting steam is also removed from them.
 - 2.) Device to carry out the method per claim 1, characterized in that a panlike or potlike vessel, preferably coated with Teflon on the inside, is provided with rotating scrapers, lifters, or tossing elements and a fan.

. . .

5.) Device according to claim 1 and 2, characterized in that heating elements are provided in the air stream.

6.) Device according to one of the preceding claims, characterized in that electric radiant heaters are arranged in the lower part of the top piece supporting the drive elements."

The law on construction and on references to numerals in the patent

17. The proper approach to the construction of a Patent was common ground, save in relation to the use of reference numerals. It is sufficient to cite first from Jacob LJ's abbreviated summary of the principles in the Court of Appeal in *Virgin Atlantic Airways Ltd v. Premium Aircraft Interiors UK Ltd* [2009] EWCA Civ 1062, [2010] RPC 8 ("*Virgin Atlantic*") at paragraph 5, which are particularly important in this case.

"The task for the court is to determine what the person skilled in the art would have understood the patentee to have been using the language of the claim to mean. An abbreviated version of [the principles] is as follows:

- (i) The first overarching principle is that contained in Article 69 of the European Patent Convention.
- (ii) Article 69 says that the extent of protection is determined by the claims. It goes on to say that the description and drawings shall be used to interpret the claims. In short the claims are to be construed in context.
- (iii) It follows that the claims are to be construed purposively the inventor's purpose being ascertained from the description and drawings.
- (iv) It further follows that the claims must not be construed as if they stood alone the drawings and description only being used to resolve any ambiguity. Purpose is vital to the construction of claims.
- (v) When ascertaining the inventor's purpose, it must be remembered that he may have several purposes depending on the level of generality of his invention. Typically, for instance, an inventor may have one, generally more than one, specific embodiment as well as a generalised concept. But there is no presumption that the patentee necessarily intended the widest possible meaning consistent with his purpose be given to the words that he used: purpose and meaning are different.
- (vi) Thus purpose is not the be-all and end-all. One is still at the end of the day concerned with the meaning of the language used. Hence the other extreme of the Protocol a mere guideline is also ruled out by Article 69 itself. It is the terms of the claims which delineate the patentee's territory.
- (vii) It follows that if the patentee has included what is obviously a deliberate limitation in his claims, it must have a meaning. One cannot disregard obviously intentional elements.
- (viii) It also follows that where a patentee has used a word or phrase which, acontextually, might have a particular meaning (narrow or wide) it does not necessarily have that meaning in context.
- (ix) It further follows that there is no general 'doctrine of equivalents.'

- (x) On the other hand purposive construction can lead to the conclusion that a technically trivial or minor difference between an element of a claim and the corresponding element of the alleged infringement nonetheless falls within the meaning of the element when read purposively. This is not because there is a doctrine of equivalents: it is because that is the fair way to read the claim in context.
- (xi) Finally purposive construction leads one to eschew the kind of meticulous verbal analysis which lawyers are too often tempted by their training to indulge."
- 18. Article 69 of the European Patent Convention ("EPC") provides that the claims determine the extent of protection of a patent, but the description and drawings are used to interpret the claims.
- 19. Rule 43(6) of the Implementing Regulations to the EPC provides that: "[e]xcept where absolutely necessary, claims shall not rely on references to the description or drawings in specifying the technical features of the invention."
- 20. Rule 43(7) of the Implementing Regulations to the EPC provides that: "where the European patent application contains drawings including reference signs, the technical features specified in the claims shall preferably be followed by such reference signs relating to these features, placed in parenthesis, if the intelligibility of the claim can thereby be increased. These reference signs shall not be construed as limiting the claim".
- 21. In *Virgin Atlantic*, Jacob LJ said this about reference numerals in relation to the claims in a patent at paragraph 17:-

"In particular, we do not think that numerals should influence the construction of the claim at all – they do not illustrate whether the inventor intended a wide or narrow meaning. The patentee is told by the rule that if he puts numerals into his claim they will not be used to limit it. If the court subsequently pays attention to the numbers to limit the claim that is simply not fair. And patentees would wisely refrain from inserting numbers in case they were used against them. That is not to say that numbers are pointless. They help a real reader orient himself at the stage when is trying to get the general notion of what the patent is about. He can see where in the specific embodiment a particular claim element is, but no more. Once one comes to construe the claim, it must be construed as if the numbers were not part of it. To give an analogy, the numbers help you get the map the right way up, they do not help you read it to find out exactly where you are."

The judge's reasons

22. On the main construction question, the judge gave his reasons for preferring SEB's construction at paragraph 81 of his judgment. The judge specifically endorsed the reasons given by SEB's counsel which he had set out at paragraphs 72-75 of his judgment. The judge concluded that the skilled team would understand the patentee to be using the words "main body" in the context of integer 9[B] as including the lid as a part of it, albeit an optional and distinct part, so that claim 9 extended to an

arrangement where the main heater was mounted on the lid. His reasons can be summarised as follows:-

- i) It was clear from the general manner in which the embodiments were described in the specification that the lid was part of, albeit an optional and distinct part of, the main body, since the specification describes the main body 2 as having three parts: a base 2A, a side skirt 2B and a lid 2C, and uses the same numbering scheme to describe a number of other assemblies.
- ii) A number of passages in the specification specifically indicate that the lid is regarded as part of the main body when present including (a) the statement in paragraph 34 that "the main body is provided with a lid 2C", and (b) the statement in paragraph 120 that the make-up orifice is "provided in the lid 2C or, more generally, in the main body 2".
- iii) It was unsurprising that the Patent treated the lid as both separate from and as part of the main body, since it was commonplace for a whole to comprise parts which were both part of the whole and yet distinct, such as a teapot and its lid and a human body and its arms and legs.
- iv) The specification disclosed the part of the main heater means located in the lid, since the main heater means was described at paragraph 90 as consisting of the complete hot air system for the cooking, including the ducting device 29 in the lid, and Figure 2 showed the main heater means 24 as being in the lid, and the flow of heat 25 coming from the ducting device in the lid.
- v) This reasoning did not contravene the principle stated by Jacob LJ in paragraph 17 of *Virgin Atlantic*, because the reference numerals in the claim were not being used to construe the claim, and certainly not to limit the scope of the claim. Instead, the reasoning was taking proper account of the system of numbering used in the specification, and the message which that conveys about the relationship between the respective parts.
- vi) Since claim 9 was dependent on each of claims 1-8, the skilled reader would understand that the reference to "main body" in integer 9[B] was in contradistinction to the receiver means and the stirrer means rather than in contradistinction to the lid.
- vii) There was force in the argument that the technical purpose of mounting the main heater means in the main body rather than the lid was to enable the lid to be lighter, to allow for easier handling of the appliance, and to make it safer. But the argument was not decisive, because the specification does not expressly link the lightness of the lid with mounting the main heater means on the main body, and the skilled team would appreciate that the extent of the advantage depended on factors such as the weight of the heater and the fan, and that achieving the directional flow of heat which is the subject of claim 10 was more important to the invention and was as well, if not better achieved, by mounting the main heater means in the lid.
- 23. In relation to the construction of claim 3[C] requiring that the "lid together with the main body form a substantially sealed chamber around the food", the judge held that

SEB were right to contend that this included an arrangement in which there was a small gap between the lid and the main body around its circumference as in the Halo fryer. The judge's reasons can be summarised as follows:-

- i) Paragraph 109 shows that the difference between claims 2 and 3 is not the difference between "closed" and "sealed" but in the fact that claim 3 requires the main body and lid in its closed position to form the chamber.
- ii) The skilled team would understand that the purpose of the chamber being "substantially sealed" under claim 3 was to ensure that the flow of heat could be recycled within the chamber, but steam could be released. Any other construction would make it a pressure cooker. The specification does not suggest that claim 3 was to be limited to the lid and main body forming a completely sealed chamber with steam venting elsewhere.
- iii) There was no reason to suppose that the patentee intended to exclude an arrangement with a small gap between the lid and the main body which both allows heat to be recycled and steam to be released.
- 24. The judge's holdings on the disclosure of Vogt are not challenged on appeal. I shall set out his conclusions briefly, however, since they formed the basis of his decision on the obviousness of claim 10 over Vogt. The judge decided that:
 - i) The top structure of the vessel in Vogt was open between the supporting and the holding parts. In other words, there was no sealed or even partially sealed chamber.
 - ii) Vogt did not clearly disclose that its top structure was removable.
 - iii) Vogt discloses that the top heating element heats the food, and thus contributes to an unspecified extent to cooking it.
 - iv) Whilst it was common ground that the main heating means in the disclosed embodiment in Vogt was the external hotplate, the radiant heaters possibly mounted in the lid were, if present, a subsidiary heat supply and could not be the main heating means.
- 25. Finally, the judge decided (of relevance to the appeal) that the 'heater means' claims 10, 11 and 13 were not obvious over Vogt. His reasoning can be summarised as follows:-
 - The skilled person would not regard Vogt as a worthwhile starting point for development at all, because it was 33 years old in 2004, from a different technological era, unclear and lacking in detail and somewhat eccentric. Although Jarden's expert, Mr Glucksman, had not accepted that the skilled team would put Vogt to one side, he did accept that consumers would not accept a stove-top device which was connected to the mains.
 - ii) It was not obvious for the skilled team to make the substantial changes needed to arrive at a fryer falling within claim 10: (i) to provide a cool touch outer wall forming a main body with a removable mounted receptacle within it (not in claim 1), (ii) to provide a hinged lid forming a substantially sealed chamber

- with the main body when closed (not in claim 3 and contrary to Vogt's teaching, which is about steam release), and (iii) to rotate the bowl rather than the stirrer (not in claim 8, and requiring substantial re-design).
- iii) It would not be obvious either to dispense with Vogt's external hotplate and rely instead on the radiant heaters in the lid as the main heater means. As SEB's expert, Mr Nicholson, said, this would be contrary to Vogt's teaching, and the skilled team would find it simpler to design a fryer from scratch. Since it was not alleged that claim 10 was obvious over common general knowledge alone, obviousness over Vogt was pure hindsight.

J arden's submissions on the construction issue

- 26. Mr Andrew Lykiardopoulos QC, leading counsel for Jarden, made the following submissions in support of his construction of the Patent:
 - i) The use of the word "main" to describe "body" makes it clear in paragraph 31 and in claim 1 that it denotes the central part of the fryer rather than optional parts or extremities. Indeed, claim 1 could even include an open fryer without a lid at all, and claims 3 and 4 could include a fully detachable lid. The analogy with the human body or the teapot is inapt because the term is "main body", not just "body".
 - ii) The concept of the main heater means is not introduced until claim 9, and that claim and paragraph 83 refer to a main heater means mounted on the main body. That main body is referred to in paragraphs 2 and 31 as "a main body intended to accommodate food" for frying within it.
 - Various parts of the specification indicate that the lid is separate from the main body including (a) paragraph 35 that refers to the lid being "mounted on the main body" (as paragraphs 53, 72, 73 and 83 refer to other components being similarly mounted on the main body), (b) the fact that each component mentioned in the specification has its own separate function, (c) paragraph 36 refers to a viewing zone on the lid allowing frying progress to be viewed "while the lid is closed on the main body", (d) paragraph 97 refers to the ducting device being mounted in the lid, (e) paragraphs 113 and 116-120 refer to a fat storage means being functionally connected to the lid, and removably mounted relative to the main body, for filling it with fat "when the lid 2C closes the main body 2", and a conduit which may be "provided in the lid 2C or, more generally, in the main body 2".
 - iv) The technical purposes of creating a lighter lid and a safer appliance by having the heater in the main body would have been obvious to the skilled reader.
 - v) The judge was wrong to suggest that he was using the numbers in the specification rather than the numbers in the claims to construe the claims because that approach would entirely negate the purpose of Rule 43(7) as explained in *Virgin Atlantic*. The judge's construction cannot stand without the use that he made of the numerals. In any event the fact that the main body is numbered 2 and the lid is numbered 2C does not indicate that one

- encompasses the other, but rather that they share a functional relationship, namely forming a substantially sealed cooking chamber (paragraph 34).
- vi) The Patent uses language to show that one part "comprises" another where it means to do so. For example, paragraph 32 says that the main body "comprises" a base. This is to be contrasted with paragraph 34 which says that the main body is "provided with" a lid.
- vii) The claims exclude the mounting of the main heater means on the stirring means or on the receiver means, but not, according to the judge, on the lid. The judge's construction makes little sense of claims 3 and 4 that refer to the "lid together with the main body" and "a hinge for connecting the lid and the main body", and claim 9 that refers to a main heater means mounted on the main body.
- viii) The judge was wrong to think that the heater in the lid would be a better arrangement because of the requirement for a directional flow of heat. The requirements of claim 10 cannot be imported into claim 9 so as to change its meaning.
- ix) The judge was wrong to accept SEB's submission that all or part of the main heater means was in the lid. It was not. Only the ducting device was in the lid, which is not part of the main heater means, but the conduit through which the hot air generated by the main heater means passes.
- x) Article 69 of the EPC and its Protocol requires fair protection for a patentee and reasonable certainty for third parties. The judge's construction ignores the need for such certainty since it cuts across the plain language of the claims.
- xi) Finally, Jarden contends that SEB itself did not think to argue that the heater claims were infringed for some 18 months after the dispute began despite being specifically asked which specific claims were allegedly infringed. This, Jarden maintains, shows the artificiality of SEB's case on infringement.

S EB's submissions on the construction issue

- 27. Mr Benet Brandreth, counsel for SEB, supported the judge's reasons. In his succinct and well directed oral submissions, he sought to amplify and explain those reasons. He started by submitting that the Patent is about a device that can achieve a novel method of cooking that achieves a particular result. The Patent explains that there are many possible ways of doing so. The novel method in question is to use a flow of heat to replicate the deep fat frying effect of a bath of oil.
- 28. Mr Brandreth emphasised that the use of the numerals was never SEB's primary argument. Indeed, SEB had urged the judge to follow Jacob LJ's injunction in *Virgin Atlantic*. Instead, SEB's primary argument had always been that the clear language of the Patent contemplates that the main body includes a lid, where one is present (i.e. not in claim 1). The distinction is made between the main body and the lid in claims 3 and 4, because those claims are specifically concerned with the relationship between the main body and the lid (first, as to opening, and secondly as to hinging). He relied particularly on the scheme of paragraphs 31 to 34 of the specification showing that the

main body is dealt with first in paragraph 31, and its component parts are dealt with in the following three paragraphs (the base in paragraph 32, the side skirt in paragraph 33, and the lid in paragraph 34). He relied particularly on paragraphs 34 and 120 as demonstrating that the patentee intended that the lid was indeed a part of the main body. Mr Brandreth explained that the references to teapot and human bodies were not analogies, but were intended to show that in a normal use of language it was common place to refer to a whole alongside a part of that whole.

- 29. On Jarden's second main point as to the meaning of "main heater means", Mr Brandreth submitted that paragraph 84 of the specification is the central provision. That paragraph demonstrates that the term "main heater means" "denotes a heater means which can of itself provide at least most of the contribution of the heat for cooking". The "main heater means" is not, therefore, to be understood as a physical thing, but as a system of directing heat at the food to cook it. It is central to the invention of the Patent. The main heater means is a reference to whatever components are chosen by the designer to achieve the specified purpose. Whilst the main heater means is necessarily implemented by specific components, they could all be in the lid or partly in the lid and partly in the body, but the key point is that they achieve the necessary flow of heat being directed at the food broadly from above it.
- 30. In essence, Mr Brandreth submitted that since part of the main heater means was inevitably going to be in the lid (as was shown by the arrow from numeral 24 in Figure 2 of the Patent see the fifth diagram that I have included above), the term "mounted on the main body" in claim 9 had to include the lid.

The issues

As the case was ultimately argued, only two main issues arose. The first was whether the words "mounted on the main body" in claim 9 should or should not be construed as including the lid, and the second was whether the judge ought to have held that claims 10, 11, 13 and 15 were obvious over Vogt. The second issue would not arise if Jarden were right as to construction, so that claim 9 did not cover a fryer where the main heater means was not mounted on the lid.

Discussion on the construction issue

32. I agree with the judge that these arguments are, at least in some respects, finely balanced. But I should start with the question of whether the judge was justified in making the use that he did of the reference numerals. In this regard, I have no doubt that the judge fell into legal error by allowing the reference numerals to influence his construction of the claim. The judge was not simply using the reference numerals to identify which parts in Figure 2 were being referred to in the claims or the specification, but was relying on the use of the particular identifiers "2", "2A", "2B" and "2C" (referring to the main body, the base, the side flank and the lid respectively) to conclude that the lid was to be regarded on a proper construction of the claims as a part of the main body. This can be clearly seen from the fact that the judge said at paragraph 81 that he considered "for the reasons given by counsel for SEB" that "the skilled reader of the specification would conclude that the lid was part of the main body". One of those reasons was recited by the judge at paragraph 72 namely "the specification describes the main body 2 as having three parts: a base 2A, a side skirt

- 2B and a lid 2C" and that the "specification uses the same numbering scheme to describe a number of other assemblies".
- 33. The judge was, therefore, in my judgment, allowing the numerals themselves to influence the construction of the claim in violation of Jacob LJ's primary injunction in paragraph 17 of *Virgin Atlantic*. This was not a use of numerals simply to identify the parts of the patented device, or, to use Jacob LJ's analogy, to enable the reader to get the map the right way up. It was the use of numerals to direct the skilled reader to which parts of the patented device were to be read in the claims as being included when a particular term was used. Whilst, as the judge said, the point was not used to "limit" the claims in direct violation of Rule 43(7), it was used to construe the claims and, in particular, to give an extended meaning to the term "main body" so as to include the lid, which increased the scope of the patentee's protection. That was in my judgment impermissible.
- 34. I do not, however, think that the appeal can succeed simply on that ground, since it is still necessary to consider whether the judge's construction was anyway correct. As Mr Brandreth emphasised, the numerals point was very much a secondary issue.
- 35. The construction of the term "main body" is complicated by the fact that the use of language in the Patent is not entirely consistent, which may be partly because we are looking at an agreed translation of the Patent from the original French. It seems to me, however that, once it is clear, as it is, that the judge fell into error in one of the reasons he adopted for the construction he decided upon, I must look at the matter afresh without paying any impermissible regard to the identifying numerals as an aid to construction.
- 36. In many cases, the rules of construction are stated as something of a mantra without always being given their full and proper effect. This is a case that I have found repays a close study of the principles so often set out. I will try to explain what I mean. The founding principle is in article 69 of the EPC which provides that "[t]he extent of the protection conferred by a European patent ... shall be determined by the claims. Nevertheless, the description and drawings shall be used to interpret the claims". As was said in the oft-cited passage from Virgin Atlantic cited above and by the judge "[i]n short the claims are to be construed in context", and "[i]t follows that the claims are to be construed purposively - the inventor's purpose being ascertained from the description and the drawings". The next passage is equally important: "[i]t further follows that the claims must not be construed as if they stood alone – the drawings and the description only being used to resolve any ambiguity. Purpose is vital to the construction of claims", as is what follows, namely that the "purpose is not the be-all and end-all. One is still at the end of the day concerned with the meaning of the language used ... if the patentee has included what is obviously a deliberate limitation in his claim, it must have a meaning ...".
- 37. At one point in this appeal, I was much attracted to SEB's construction of the claims. That was because SEB submits with some force that, in order properly to understand the inventor's purpose, one has to reach paragraphs 82-147 of the specification which concerns heating and cooking of the food. Paragraph 82 starts by explaining that the fat-coated food may be heated using any known internal or external heater means "provided that these heater means are designed and dimensioned to provide excellent heat exchange with the food", which is more important because there is no deep oil

- bath. The preferred embodiment is then described in paragraphs 83-90. Those paragraphs show, submits Mr Brandreth, that what the invention is all about is the generation of a flow of heat directed at the food to provide excellent heat exchange. The so-called "main heater means" providing this flow of heat will preferably provide all the heat in a closed environment. Infrared heating is contemplated as a possibility. Thus, SEB argues that a close reading of the whole of the Patent shows that it is teaching the direct flow of heat from a heater means so as directly to contact the oil-coated food. It is necessary to look at the claims with that in mind. The direct flow of heat in the preferred embodiment is achieved by a series of ducts in the lid which direct the heat produced by the fan and the element in the side skirt directly down on to the turning food. Claim 13 mentions a flow of heat emanating from infrared heating as an alternative, but that infrared generated heat would have to come from above if it were to directly hit the food as the inventor has explained it should.
- 38. Taken against that background, SEB submits that the claims can be quite easily understood. Claim 1 focuses on the devices needed to mingle the food with the fat – primarily the stirrer means and the receiver means (the receptacle). Claim 2 adds the "substantially closed chamber". Claim 3 adds the removable lid to form the "substantially sealed chamber" - only substantially sealed because the skilled person would know of the need to remove the steam and to prevent pressure cooking. Claim 4 adds the hinge connecting the lid to the body. Then claims 5 to 8 add alternative methods of stirring, before claim 9 mentions the "main heater means" for the first time. By this time, the skilled reader is taken to understand that what is being spoken of is the closed box of the description, so that the words "mounted on the main body" must be taken to include the lid, since the heat has to hit the food directly, which can in practice only come from above. Claim 10 then explains the need for the flow of heat that I have described as being needed to strike the food directly, and claim 11 expressly mentions the generation of heat above the receptacle. Claim 12 relates to the whole of the heat being supplied by the main heater means, and claim 13 introduces the possibility of infrared heating as I have mentioned. Claim 14 then describes the preferred embodiment in its entirety. Finally, Mr Brandreth supports his analysis with the submission that the main heater means is central to the invention, and that paragraph 82 shows it to be a system, rather than just one or two physical parts. The ducting in the lid is crucial to achieving the directed flow of heat required for the invention. That is, as SEB would say, what it is all about.
- 39. Attractive though this approach seemed, I have formed the clear view that it is wrong. In essence, it ignores the clear language of the claims that are being construed, and also the plain meaning of a restriction in claim 9 which the skilled reader would, I think, have no difficulty understanding. It makes the supposed purpose of the Patent the "be-all and end-all" and ignores the limited extent of the Patent's scope. Moreover, it places inappropriate reliance on the method that is described, when it is common ground that this is a Patent relating to a product or apparatus, and not to a method.
- 40. I should, therefore, come to the proper construction of the claims. First, claim 3 says that the "lid together with the main body form a substantially sealed chamber". If the lid were construed to be part of the main body, that formulation would have been different. Claim 4 then provides that the hinge is "for connecting the lid and the main body". If it had been intended to communicate to the skilled reader that the lid was

to be regarded as part of the main body, the Patent would have used separate words to describe the body without the lid on the one hand and the body with the lid on the other hand. Moreover, all parties accept that the term "main body" has to have a uniform meaning throughout the Patent, though Mr Brandreth submits that it only includes the lid where there is a lid on what is being described.

- 41. Moreover, the specification does not give SEB the assistance that it sought. It is true that paragraph 31 speaks about the fryer comprising a main body intended to accommodate food, and that paragraphs 32-34 then describe the base, the side skirt and the lid. But the only thing that even implies that all three of those parts are included in the main body is the numbering system, which needs to be disregarded for this purpose. The use of the words "the main body is *provided with* a lid" (emphasis added) is, as Jarden submitted, to be contrasted with the other two parts, which the main body is said to "comprise". The fact that the lid is said to form a closed box in co-operation with the side skirt and the base, if anything, points away from the lid being part of the main body, since that is not mentioned as being what is formed. Paragraph 120 is, at best, equivocal, since it refers to the filling orifice being extended by a conduit that is "provided in the lid or, more generally, in the main body". That is no clear indication that the lid is part of the main body, merely that the main body is a greater (or more "general") part of the whole than the lid.
- 42. SEB also, in my judgment, failed adequately to rebut Jarden's argument that "main heater means" comprised only the heater and the fan, which were both clearly mounted on the main body as opposed to the lid in the preferred embodiment. Whilst it is true that paragraph 84 refers to the function of the "main heater means", that paragraph does not define the term. The term is explained first in paragraph 83 which says that "a main heater means [is] provided to generate a flow of heat". The ducting, which SEB says is part of the "main heater means", does not "generate" anything. Paragraphs 90 and 92 are to the same effect, namely that the "main heater means includes a centrifugal fan generating an air flow by taking air from the main body" (emphasis added), and the "main heater means also includes a heater element ... to transform the air flow into a flow of heat". Claim 14 is in similar terms. In my iudgment, these paragraphs demonstrate that the main heater means is explained to the skilled person reading the Patent as including only the fan and the heater itself, not the inlets or the outlet ducting, the latter of which is shown as being in the lid. It is the "assembly of the air circuit" in paragraph 102 that is explained as including the ducting, not the main heater means.
- 43. The only real support for SEB's contention that the main heater means includes the ducting in the lid is the use of the numeral "24" in Figure 2 referring to the "main heater means" with an arrow pointing to an area in the lid, but towards the heating element. Whilst I accept that one can properly look at where the arrow points as an aid to construction, it is not clear that the position of the arrow assists SEB since it is pointing directly at the heater coil, even if the head of the arrow stops before it. This is simply not enough to outweigh the effect of the clear words of the specification and the claims.
- 44. Ultimately, this is a case, as I have said, where it is necessary to pay close attention to the process of construction described in *Virgin Atlantic*. A purposive construction would ask the skilled reader to look at the cooking process that SEB relies upon, but the Patent is not, as I have said, a method patent. The purposive construction cannot

overcome the clear restriction in claim 9 that limits the patentee's claims to a main heater means mounted on the main body. Claims 3 and 4 and paragraphs 31-34 (together with other later paragraphs) show that the main body is separate from the lid, so claim 9 does not include a main heater means mounted entirely on the lid as in the Halo fryer.

- 45. The other reasons relied on by the judge do not, I think, come close to contradicting the clear language of claims 3 and 4: even if the term "main body" is used in contradistinction to the receiver means and the stirrer means, that says nothing about whether it includes or excludes the lid.
- 46. I have considered carefully how the judge, with his extensive experience in the field, can have fallen into error on this construction issue. It seems to me that he may have been influenced in his construction of the Patent by issues relating to infringement. In the preferred embodiment of the Patent, it is clear that the "flow of heat" comes down from the lid on to the food, and that is how the Halo works (albeit that it uses radiant heaters). The method adopted by the Halo is certainly similar to that described in the Patent. But that is not relevant to the question of whether the Patent actually claims a device in which the main heater means is mounted on the lid. In my judgment, it does not.
- 47. For these reasons, it seems to me that the judge was wrong to conclude that the main heater means mounted on the main body referred to in claim 9 could include a "main heater means" mounted in the lid. I would, therefore, allow this part of Jarden's appeal.

Discussion on whether claims 10, 11, 13 and 15 were obvious over Vogt

- 48. It was common ground before us that if the judge was wrong on the construction issue, that was an end of the matter, since the Halo fryer would not have infringed claims 10, 11 and 13 which the judge had found to be valid. Accordingly, in the way that I would dispose of the construction issue, none of the many other points raised by Jarden requires to be determined.
- 49. Since, however, they were raised and argued at some length, I feel that I should record that Jarden submitted as follows on the judge's treatment of Vogt:
 - i) The judge's decision that the skilled person would have disregarded Vogt was his own point and contrary to the evidence before him.
 - ii) The judge wrongly construed claim 9 of the Patent as requiring that the principal or only heaters were mounted on the main body (including the lid), which led him to think, in error, that Vogt would have to be adapted so as to remove the hotplate as a source of heat entirely.
 - iii) The judge considered the validity of claim 10 on its narrowest claim dependency, not as he should have done, on its widest. This led him to fail to consider as he should have done applying the tests in *Pozzoli v. BDMO* [2007] FSR 37 the actual differences between the later claims of the Patent and Vogt, and whether they were steps requiring invention, which they were not.

- iv) Had the judge considered the obviousness of claim 10 dependent on just claims 1 and 9 (as he ought to have done), he would have concluded that:
 - a) the main body housing the receptacle was (as he had himself found at paragraph 42) common general knowledge to create cool touch exterior;
 - b) the receptacle being removably mounted within the main body was also common general knowledge by 2004 (as he had also found at paragraph 43);
 - c) the "main heater means" of claim 9 was present in Vogt, which teaches a heating element in the lid which heats and cooks the food, and can be supplemented by radiant heaters. The hotplate in Vogt did not need to be removed. Vogt teaches "the supply of cooking heat from the top or bottom";
 - d) claims 11, 13 and 15 add no invention.
- v) Had the judge considered the obviousness of claim 10 dependent on claim 3 alone (as he ought to have done), he would have concluded that:
 - a) Hinged lids were entirely standard by 2004 and required no invention;
 - b) Mr Nicholson had been right to say that Vogt could be modified to make the lid removable;
 - c) The judge ought to have construed Vogt as showing a covered lid so as to enable the hot air to recycle with steam openings located between the holding parts; and
 - d) A closed lid was not contrary to the teaching in Vogt as understood by the skilled team who would know that venting of steam was needed.
- vi) Finally, Jarden contend that the judge failed to consider the impact on infringement if features of the other sub-claims were written into claim 10. The judge's holding that the claim 3's reference to a substantially sealed chamber was to a fryer that is sufficiently closed to enable the flow of heat to be recycled and steam to be released is to rewrite the claim. The judge's finding ignored the numerous references in paragraphs 19 and 34 to a "substantially hermetically sealed" chamber and to a "substantially leaktight seal of the main body by the lid" and to the use of seals and to the chamber being "closed in a sealed manner". The Halo fryer did not infringe claim 3 as it has a gap between the main body and the lid.
- I have considered these points and would deal only with the first which concerns whether the judge was justified in holding that the skilled team would not have regarded Vogt as a useful starting point for further development. As the judge recorded at paragraph 102 of his judgment: "the skilled person is deemed to read the prior art properly, and in that sense with interest, but without assuming that it will provide him with any assistance in solving the problem which confronts him. In some

- cases he may conclude that it is not a useful starting point for development: see *Terrell on the Law of Patents* (17th ed) §§12-27 to 12-30".
- The question on this point was really whether the judge was entitled to raise this point at all, since there was no clear expert evidence to the effect that a skilled person would disregard Vogt or conclude that it did not provide him with assistance as providing a useful starting point for development. We were shown in detail the evidence of Mr Dov Glucksman, Jarden's expert, to whom the judge had suggested this point at the end of his testimony.
- 52. In my judgment, however, this was a point that was open to the judge. He made it quite clear that he preferred Mr Nicholson's evidence to that of Mr Glucksman, and whilst Mr Nicholson did not say in so many words that he would have disregarded Vogt, his reports make it obvious that that was his view. Vogt teaches a shallow frying mechanism dependent on the main heat source under the vessel. To make it a useful starting point, the skilled team would have at once to have changed the fundamental elements of Vogt's teaching. It would have been necessary to close the vessel to form a substantially sealed chamber, which as the judge said was contrary to Vogt's teaching, and to remove the main heater means under the main body to allow a different method of cooking with heat directed at the food.
- 53. I would be reluctant to depart from such an experienced judge on a question of obviousness. I am sure that the judge was fully entitled to reach the conclusions that he did in both paragraph 120 and paragraphs 121-2 of his judgment. Having looked with interest at Vogt, I do not think that the skilled team would have regarded Vogt as a useful starting point for further development. In these circumstances, there is no need for me to consider the other points made by Jarden in relation to Vogt and I do not regard it as appropriate to do so.

Disposal

54. For the reasons I have given, I would allow the appeal on the main construction point, and declare that claims 10, 11 and 13 were not infringed by the Halo fryer.

Lord Justice Burnett:

55. I agree.

Sir Timothy Lloyd:

56. I also agree.