



PATENTS ACT 1977

BETWEEN

Guy Jackson-Ebben	Claimant
and	
(1) James Nash	Defendants
(2) Wine Innovations Ltd	

PROCEEDINGS

Reference under sections 8, 12 and 37 of the Patents Act 1977, and application under section 13 and rule 10(2), in respect of patent number GB 2469554 B and related patents or applications

HEARING OFFICER

J Elbro

Mr Richard Davis and Mr Jonathan Moss instructed by Schlich LLP appeared for the claimant

Mr James St Ville instructed by MJP Deans appeared for the defendants

Hearing date: 25 & 26 June, 3 July 2014

DECISION

Background

- 1 Mr Jackson-Ebben (“the claimant”) made a reference on 16 November 2011 under section 37 of the Patents Act 1977 (“the Act”) claiming to be entitled to patent number GB 2 469 554 B (“the patent”). He seeks to be named as sole or, in the alternative, joint patent proprietor. He has also applied to be named as sole or, in the alternative, joint inventor. He seeks similar remedies in respect of a number of corresponding foreign and European patents or applications. In addition, he argued that I should in the alternative invalidate the patent on a number of grounds.
- 2 The GB patent was granted on 14 September 2011 to Wine Innovations Limited (“the second defendant”) as sole proprietor, with Mr James Nash (“Mr Nash”) identified as the sole inventor. The patent arises from application GB 1005488.0 (“the application”) filed by Wine Innovations Limited on 1 April 2010, which claimed priority from an earlier application, GB 0906430.4 (“the priority application”), also filed by Wine Innovations Limited. Mr James Nash is the only named inventor on both applications.

- 3 Mr Nash and Wine Innovations Limited (collectively, “the defendants”) dispute the reference and the application regarding inventorship.
- 4 The claimant focused his case on the entitlement to the patent, arguing that there was no dispute between the parties that the international equivalents were to the same invention. The defendant raised questions about whether even if the claimant were successful in his claim to the patent, that would necessarily mean success relating to the equivalents. In this decision, I consider first the question of entitlement to the patent as on either view the claimant’s claim to the equivalents depends on success in respect of that.

The Law

- 5 Section 7 of the Act sets out initial entitlement to a patent application:

7.-(1) Any person may make an application for a patent either alone or jointly with another.

(2) A patent for an invention may be granted -

(a) primarily to the inventor or joint inventors;

(b) in preference to the foregoing, to any person or persons who, by virtue of any enactment or rule of law, or any foreign law or treaty or international convention, or by virtue of an enforceable term of any agreement entered into with the inventor before the making of the invention, was or were at the time of the making of the invention entitled to the whole of the property in it (other than equitable interests) in the United Kingdom;

(c) in any event, to the successor or successors in title of any person or persons mentioned in paragraph (a) or (b) above or any person so mentioned and the successor or successors in title of another person so mentioned; and to no other person.

(3) In this Act “inventor” in relation to an invention means the actual deviser of the invention and “joint inventor” shall be construed accordingly.

(4) Except so far as the contrary is established, a person who makes an application for a patent shall be taken to be the person who is entitled under subsection (2) above to be granted a patent and two or more persons who make such an application jointly shall be taken to be the persons so entitled.

- 6 The parties agreed that the approach to be taken when considering requests under section 37 can be found in *Yeda v Rhône Poulenc*¹ (“*Yeda*”). Paragraphs 18-21 of this decision outline what questions must be answered and also provides a summary of guidance from other relevant case law which must be considered. Lord Hoffman states:

18. Section 7(2), and the definition in section 7(3), are in my opinion an exhaustive code for determining who is entitled to the grant of a patent. That is made clear by the words "and to no other person." In saying that the patent may be granted "primarily" to the inventor, section 7(2) emphasises that a patent may be granted only to the inventor or someone claiming through him. The claim through an inventor may be made under one of the rules mentioned in paragraph (b), by which someone may be entitled to patent an invention which has been made by someone else (the right of an employer under section 39 is the most obvious example) or the claim may be made under paragraph (c) as successor in title to an inventor or to someone entitled under paragraph (b).

19. In my opinion, therefore, the first step in any dispute over entitlement must be to decide who was the inventor or inventors of the claimed invention. Only when that question has been decided can one consider whether someone else may be entitled under paragraphs (b) or (c).

¹ *Yeda Research and Development Company Limited v Rhone Poulenc Rorer International Holdings Inc and others* [2007] UKHL 43

In many cases, including the present, there will be no issue about paragraphs (b) or (c). If the invention was made by the Weizmann scientists, there is no dispute that Yeda is entitled under paragraphs (b) or (c). Likewise if the invention was made by Dr Schlessinger and his team.

20. The inventor is defined in section 7(3) as "the actual deviser of the invention". The word "actual" denotes a contrast with a deemed or pretended deviser of the invention; it means, as Laddie J said in *University of Southampton's Applications* [2005] RPC 220, 234, the natural person who "came up with the inventive concept." It is not enough that someone contributed to the claims, because they may include non-patentable integers derived from prior art: see *Henry Brothers (Magherafelt) Ltd v Ministry of Defence* [1997] RPC 693, 706; [1999] RPC 442. As Laddie J said in the *University of Southampton* case, the "contribution must be to the formulation of the inventive concept". Deciding upon inventorship will therefore involve assessing the evidence adduced by the parties as to the nature of the inventive concept and who contributed to it. In some cases this may be quite complex because the inventive concept is a relationship of discontinuity between the claimed invention and the prior art. Inventors themselves will often not know exactly where it lies.

21. The effect of section 7(4) is that a person who seeks to be added as a joint inventor bears the burden of proving that he contributed to the inventive concept underlying the claimed invention and a person who seeks to be substituted as sole inventor bears the additional burden of proving that the inventor named in the patent did not contribute to the inventive concept. But that, in my opinion, is all. The statute is the code for determining entitlement and there is nothing in the statute which says that entitlement depends upon anything other than being the inventor. There is no justification, in a dispute over who was the inventor, to import questions of whether one claimant has some personal cause of action against the other.

7 Thus the starting point for determining entitlement is the identity of the inventor. As mentioned in paragraph 18 quoted above, another important question is whether the inventor's employer has a right to patent an invention in place of the inventor, as set out in Section 39 of the Act:

39.-(1) Notwithstanding anything in any rule of law, an invention made by an employee shall, as between him and his employer, be taken to belong to his employer for the purposes of this Act and all other purposes if -

(a) it was made in the course of the normal duties of the employee or in the course of duties falling outside his normal duties, but specifically assigned to him, and the circumstances in either case were such that an invention might reasonably be expected to result from the carrying out of his duties; or
(b) the invention was made in the course of the duties of the employee and, at the time of making the invention, because of the nature of his duties and the particular responsibilities arising from the nature of his duties he had a special obligation to further the interests of the employer's undertaking.

(2) Any other invention made by an employee shall, as between him and his employer, be taken for those purposes to belong to the employee.

8 In relation to determining whether a person is an employee, the claimant cited *Ready Mixed Concrete v Minster of Pensions and National Insurance*² which gives the following three stage test:

A contract of service exists if these three conditions are fulfilled.

(i) The servant agrees that, in consideration of a wage or other remuneration, he will provide his own work and skill in the performance of some service for his master.

² *Ready Mixed Concrete (South East Limited) v Minister of Pensions and National Insurance* [1968] 1 QB 497

(ii) He agrees, expressly or impliedly, that in the performance of that service he will be subject to the other's control in a sufficient degree to make that other master.

(iii) The other provisions of the contract are consistent with its being a contract of service

9 The claimant also put forward a number of factors derived from *Addison v London Philharmonic*³:

(1) The degree of control exercised by the defendant;

(2) whether the claimant's interest in the performance involved any prospect of profit or risk of loss;

(3) whether they were properly regarded as part and parcel of the defendant's organisation at the relevant times;

(4) whether at the relevant times they were carrying on business on their own account or carrying on the business of the respondent;

(5) the provision of equipment;

(6) the incidence of tax and national insurance in respect of the contracts;

(7) the parties own view of their relationship;

(8) the traditional structure of the applicant's profession and arrangements within it.

10 Finally on this point, the claimant cited three further factors found in other caselaw:

(1) It is a matter of substance not form, and whether a given relationship is called an "employment" relationship is a relevant, but not decisive, consideration.⁴

(2) Whether or not the person can work at their own convenience or whether they have to work at the direction of another.⁵

(3) Where a person takes an economic risk, that is a strong indicator that they are not subject to a contract of employment.⁶

11 The claimant's first claim is that he invented the invention in the patent ("the invention"), and thus should be named as the inventor and, by the above, is also entitled to the patent.

12 The defendants answer this with two arguments: firstly that the claimant is not, in fact, the inventor, and secondly that in any event at the relevant time he was an employee of the second defendant and through operation of section 39(1) above, Wine Innovations and not the claimant would be entitled to any patent resulting from an invention made by the claimant.

³ *Addison v London Philharmonic Ltd* [1981] ICR 261 at 271

⁴ *Barnett v Brabyn* [1996] STC 716

⁵ *Ray v Classic FM* [1998] FSR 622 at 639

⁶ *Stringfellow Restaurant Limited v Nadine Quashie* [2012] EWCA Civ 1735 at paragraph 51

- 13 The claimant also argued, in the alternative, that I should hold the patent invalid if I determined the claimant was not entitled to it. For this argument, he primarily relied on the statements of Jacob LJ in *Markem v Zipher*⁷:

87. This brings us to the next point. Mr Watson submits that under s.8 the validity of the patent is completely irrelevant. The only question is: who is entitled? Mr Thorley accepted that s.8 proceedings cannot turn into a full-scale inquiry into validity in a difficult case but that where an unanswerable case of validity was raised, the Comptroller can act upon it. He drew an analogy with proceedings for amendment of a patent where a roving inquiry into validity is not permitted but one can inquire as to whether a proposed amendment dealt with the reason advanced for making it, *Great Lakes Carbon's Patent* [1971] RPC 117.

88. We have no doubt that Mr Thorley is right. If the patent or part of it is clearly and unarguably invalid, then we see no reason why as a matter of convenience, the Comptroller should not take it into account in exercising his wide discretion. The sooner an obviously invalid monopoly is removed, the better from the public point of view. But we emphasise that the attack on validity should be clear and unarguable. Only when there is self-evidently no bone should the dogs be prevented from fighting over it.

89. Moreover Mr Watson's submission goes as far as an illogical conclusion. He openly submits, for example, that claim 1 of '326 is invalid, but that that invalidity should be considered irrelevant to Markem's entitlement claim. That cannot be right. There is simply no point in the Comptroller handing rights in an invalid monopoly from one side to another.

90. This same illogicality indeed applies to the whole of Markem's case. For since it is not suggested that the employees did anything wrong in using their background knowledge – essentially of what would be desirable in a machine rather than how actually to produce a practical machine - what is relied upon to establish entitlement could equally be relied upon to establish invalidity. We think that if an inherent part of a claim to entitlement is also an assertion of or acceptance of invalidity, the entitlement claim must fail.

The technology and the inventive concept

- 14 The invention in question concerns a method and apparatus for filling and sealing a beverage container, of the kind from which a user may drink directly. The main embodiment set out in the patent concerns a filled and sealed plastic wine goblet.
- 15 These goblets are intended to contain single servings of wine and are individually sealed. Each goblet has a flexible film lid, pictured below. Visible in the picture is a tab which protrudes over the lip of the goblet, enabling the lid to be peeled back and removed by the consumer pulling on the tab.

⁷*Markem Corporation and Markem Technologies Limited v Zipher Limited* [2005] EWCA Civ 267



- 16 The sealing is performed as a series of steps, illustrated in figure 1 of the patent, reproduced below.

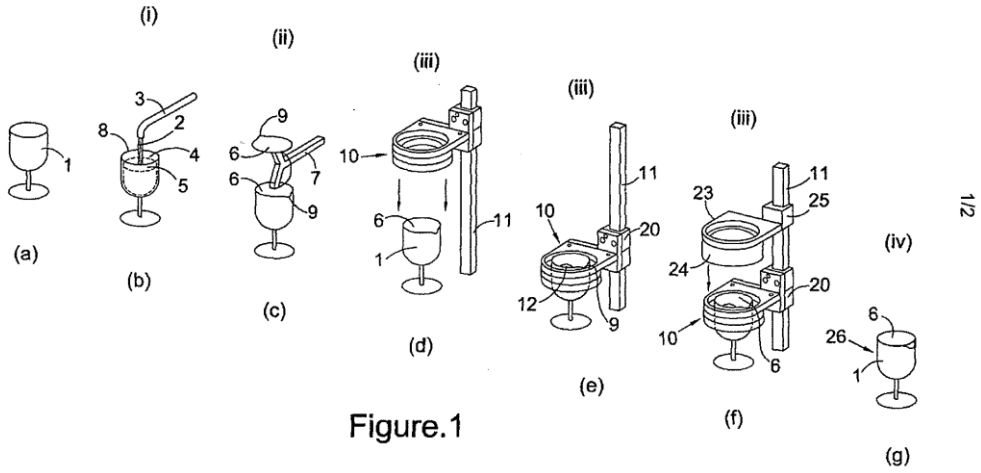


Figure.1

- 17 In the above diagram, the goblet is first filled with wine (i). It then passes to a spot-tacking station where the lid is affixed to the goblet, with a single "spot tack" of glue. Finally, in step (iii), a heat sealer descends and fixes the lid to the rim of the goblet in an air-tight seal around the rim's circumference.



- 18 As I outline below, in the years prior to the filing of the patent, Mr James Nash investigated the use of a number of machines to fill and seal his goblets. The first machine operated with a number of linear production lines, in which the goblets pass from one station to another. A later machine – the “Single Starwheel” machine (pictured above) operated using a rotating wheel which held the goblets in place as it rotated, moving them from one station to another. This was followed by a “Twin Starwheel” machine which operated in a similar manner (how similar is an issue of dispute), but using two starwheels, next to each other, rotating in opposite directions, for greater throughput speed.
- 19 One problem that was discovered is that if an air gap is left between the top of the wine and the lid, the wine will oxidise and spoil before consumption. However, filling the goblets to the brim with wine can cause the wine to spill onto the rim of the goblet, which then reduces the effectiveness of the heat sealing.
- 20 The solution adopted in the invention in the patent is to flush the so-called “headspace” – the gap between the wine and the top of the goblet – with nitrogen, and then seal this nitrogen inside in place of the air. The particular invention claimed relates to how this is done, to minimise the amount of oxygen left in the headspace.

21 The claimant argued that the invention was characterised by claim 1 of the patent, which reads as follows:

1. A method of filling and sealing a beverage container of the kind from which a user may drink, the method comprising the following steps in order:

a) dispensing a predetermined amount of beverage into an open-topped container having a circumextending rim to leave a headspace above the beverage in the container;

b) placing a flexible film lid flat on top of the container touching its entire rim, the film lid having a tab extending beyond the rim of the container;

c) temporarily tacking the film lid to the rim of the container at at least one position around the rim remote from the tab while leaving the remainder of the rim free;

d) engaging the tab of the tacked lid by relative vertical movement between the container and a ring of area slightly larger than the area of the container at its rim to cause flexure of the lid from its flat state to create a gap between the lid and the rim on the side where the tab is present;

e) dispensing an inert gas or substantially oxygen free gas or gases through the gap so created and into the headspace to displace air there from and

f) bringing a heat sealer into engagement with the lid to heat seal the lid to the rim at about its entire circumference, thereby trapping the inert gas or substantially oxygen free gas or gases within the headspace;

and the sealed lid being adapted for subsequent manual removal using the tab to open the sealed container to allow a user to drink from the container.

22 It can be seen that the letters a)-f) in the claim refer to the steps so labelled in the diagram above.

23 There did not appear to be a great deal of difference between the parties as to the nature of the invention. The key points are:

a) The spot tack is placed remote from the tab.

b) At the heat-sealing station, a ring comes down and engages the tab on the lid as it comes down.

c) This causes the lid to bend and a gap to form between the lid and the rim of the goblet, remote from the tab and the spot tack.

d) Nitrogen is then blown into this gap, displacing the air, and is then sealed inside by the heat sealer. This requires the nitrogen injector to be remote from both the spot tack and the tab in terms of position around the circumference of the goblet.

24 The defendants also argued the existence of a number of subsidiary related inventive combinations, which they characterised as relating to either the idea of manufacturing a PTE goblet with a headspace filled according to this technique, or additional features of the machine actually used, such as use of a coaxial inert-gas flushing skirt. However, the arguments that there were additional inventive concepts beyond that of claim 1 were not clearly developed, and no clear evidence of any of these actually being inventive was presented. I therefore consider the inventive

concept which I need to consider the originator of to be that outlined in the previous paragraph.

Factual Background

- 25 There was little dispute between the parties as to the overall history of the invention in this case.
- 26 James Nash claims to have conceived the idea of packaging wine in single sealed plastic glasses sometime in 2005 (the claimant does not dispute this, although he points out that it was not an original idea). To pursue this idea, he initially pursued, via the company Al Fresco Wines Ltd (“Al Fresco”), a venture through a company called Tulipak, where he had an association with a Mr Robert Kiefer. A machine using linear production lines was produced by a company called Trepko, but this venture failed.
- 27 Mr Nash incorporated a company, Al Fresco Wines (Holland) Ltd (“Al Fresco (Holland)”) on 4 April 2007. He entered into a professional relationship with Mr Robert Kiefer, and his company Serviced Property Asset Management (“SPAM”), a month or so later. The single starwheel machine was commissioned from a company called Packaging Automation Ltd (“PA”) from July 2007.
- 28 In September 2007, a test stand was made and indexing trials took place with the single starwheel machine before purchase of single star wheel machine by SPAM, also in September 2007.
- 29 In the Autumn of 2007, Al Fresco went out of business. The second defendant was formed on 12 March 2008 (the defendants assert this is the same company, with the same company number, as Al Fresco (Holland)).
- 30 The single starwheel machine went into full scale use from March/April 2008.
- 31 In May 2008, James Nash contacted Guy Jackson-Ebben with a view to securing funding for Wine Innovations.
- 32 In August and September 2008, Mr Jackson-Ebben met several of the parties involved in previous failed attempts to produce sealed wine goblets (including Trepko). He and Mr James Nash’s son, Julian Nash, produced a report (which was in evidence) on the failings of the previous machines.
- 33 On 26 Sep 2008, SPAM stopped making payments on the single starwheel machine to PA. Shortly afterwards they took possession of it under their agreement with SPAM. The twin starwheel machine was commissioned from PA, with Mr Jackson-Ebben producing a “requirement specification” document.
- 34 From January to April 2009, Mr Jackson-Ebben was employed by Wine Innovations Ltd as “Operations Manager”. It is during this time period that he alleges he invented the invention.
- 35 In January 2009, Mr Jackson-Ebben met with Phil Markham (an engineer from PA) to clarify the workings of the nitrogen ‘cross flow’ purge. He held several meetings with PA staff, and gave instructions for modifications to the machine. In particular,

on 20 January 2009, he sent an email to Katie Welsh at PA with instructions that the spot tack should be placed on the lid tab, not at 90 degrees to it as in the original design.

- 36 Factory Assurance Testing (FAT) began in March 2009. It stopped on 3 March 2009 as the machine's performance was so poor.
- 37 On 4 March 2009 Mr Jackson-Ebben started his own testing, which continued into April 2009. He requested the spot tack on the lid to go back to the original position, along with a further list of proposed modifications.
- 38 These changes were implemented by 9 March 2009, on which date Mr Jackson-Ebben and Mr Nash had their first meeting with the patent agent, Mr Deans. The priority application was filed on 14 April 2009. The application itself was filed on 1 April 2010, with the European and US equivalents being filed on 14 April 2010.
- 39 In the interim, relations between Mr Jackson-Ebben and the defendants deteriorated, resulting in Mr Jackson-Ebben issuing a claim form on 6 October 2009 claiming payment for services rendered.
- 40 Separately, SPAM sued PA in 2010 claiming that the single starwheel machine did not work properly.
- 41 The patent was granted on 14 September 2011, and the present proceedings were initiated 2 months later. There was some correspondence between Mr Jackson-Ebben and Barlow Robbins LLP as Mr Jackson-Ebben seeks records of some of the meetings leading up to the filing of the application, and between Mr Nash and Mr Ashton as Mr Nash seeks Mr Ashton's support in the case.
- 42 The EP equivalent was published as EP 2256040 on 1 December 2010. In May 2012 Mr Kiefer submitted third-party observations to the EPO, this being a copy of the technical specification of the single starwheel machine from 2007.
- 43 In July 2012, the single starwheel machine was rebuilt for the purposes of an expert report in the SPAM litigation against Tulipak, and a video taken of it for use in the *SPAM v PA* litigation. Inspection of this machine and the twin starwheel machine took place at PA for the purposes of these proceedings on 16 May 2014.

The witnesses and their evidence

- 44 The claimant had two witnesses: Mr Robert Kiefer, and Mr Guy Jackson-Ebben himself.
- 45 Mr Kiefer's involvement in events, along with his company SPAM, has been mentioned above. He made a single witness statement as part of the claimant's evidence in reply. In this statement, he covered his perspective on the development of the single star-wheel machine, and how it worked.
- 46 Mr Kiefer gave the impression of being a somewhat defensive witness under cross-examination. He appeared reluctant to agree to anything that he perceived might be used by Mr St Ville to make arguments undermining the claimant's case, rather than

focusing on giving truthful answers. In his own words, on it being put to him that he was trying to argue the claimant's case for him, (day 1 transcript page 86, lines 8-9)

"I am not. You want to walk me into a corner and when you get me close to it, I am trying to wriggle out from under it."

47 It seems to me that this tendency manifested most clearly in relation to his answers regarding whether he had read the patent. Initially, he denied having read it, and therefore that he could ever have considered the single starwheel machine to embody it.

"Q: You are now trying to step away from what you have done in the past which is to say that the star wheel machine, the single star wheel machine, did disclose everything that is described in this patent?

A: I have already told you that I have not looked at the patent so I could not possibly say that.

Q: You never said that?

A: No."

48 This evidence rapidly unravelled when Mr St Ville then produced the third-party observations which Mr Kiefer made to the EPO, referenced above, and Mr Keifer accepted that his statement that he had not read the patent was not true, although he attempted to justify it as meaning "read the patent in the current timeframe". I cannot be sure if this was a deliberate untruth on his part, but given that when it was put to him he immediately indicated he remembered making the third party observations, I find it striking that he had been so ready to make an unqualified statement that he had not read it. The clear impression left on me was that he had denied reading the patent so as to attempt to sidestep any detailed questions Mr St Ville might ask him.

49 Furthermore, under cross-examination it became apparent that Mr Kiefer's evidence as to how the single starwheel machine worked was not based on his own knowledge of the machine, but, according to his answers under cross-examination, on recollections of conversations he had had with staff at PA. This meant, as I discuss below, that regardless of the level of credence I could give to his evidence, it was not of great assistance.

50 Mr Jackson-Ebben, who gave evidence of his involvement with Wine Innovations and the development of the twin starwheel machine, was a frustrating witness under cross-examination. His own counsel in his skeleton closing argument submitted that he "gave honest answers (albeit not always to the questions which he was asked)." Repeatedly, he would fail to answer the specific question, instead making statements on how he saw the evidence supporting his case. On several occasions, instead of answering questions he sought to challenge the evidence before him (for example, raising questions over the date of documents) in a way which would have been more appropriate for submissions. It is notable that most of the arguments he raised this way were not, in fact, subsequently raised in submissions.

51 Despite this, when it was possible to nail down what Mr Jackson-Ebben was saying, his evidence generally appeared to be honest and consistent as to specific facts. However, as I shall come to later, I do not fully share his interpretations of those

facts. He appeared convinced of the rightness of his cause, and tended to interpret everything through that lens. For example, questioned on an email from Barlow Robbins which on its face clearly stated that Wine Innovations, not he, had been their client, he appeared unable to accept this clear meaning.

- 52 The witnesses for the claimant were Mr James Nash, Mr Julian Nash, and Mr Neil Ashton (who worked for PA at the time of their involvement with the defendants and indeed still does).
- 53 Mr James Nash gave evidence on his alleged invention of the invention, Mr Jackson-Ebben's employment status with respect to Wine Innovations, and the history of the companies Mr Nash had pursued the wine goblet manufacture with.
- 54 Much of Mr Nash's cross-examination consisted of Mr Davis attempting to show contradictions between what Mr Nash said now and what he had said previously. Much of this did not seem to me to be of great significance, such as what Mr Nash appears to say in a clip from Dragon's Den when seeking investment for commercialising the patented invention. Statements Mr Nash made in that context, particularly given the edited nature of the TV programme, cannot be expected to stand up to the sort of forensic analysis found in the courtroom.
- 55 The most significant apparent contradiction related to the previous litigation between the parties, where Mr Jackson-Ebben was claiming to have been an employee (and thus seeking recompense) and Mr Nash and Wine Innovations were denying this. Mr Davis drew attention to apparent contradictions between Mr Nash's statements in that litigation, and those in this (where the positions of the parties are reversed).
- 56 Mr Davis pressed Mr Nash strongly on this, asking if he was lying then or now. I think (as Mr Nash attempted to answer) that there was a third option, which is, in essence, that it was more complicated than that (indeed, as I outline later, some of the claimant's own arguments were to this effect). However, the whole tenor of Mr Nash's evidence in this respect was that he said what he believed he had to say, in both cases, in order to win. This impression came across strongly throughout his evidence in general – he clearly believed himself to be in the right, and therefore said what he thought would benefit his case, rather than giving careful consideration to the exact truth.
- 57 As a result, Mr Nash's evidence on occasion described what appeared to be unlikely scenarios, as I cover further below. Overall, I believe that I need to treat his evidence with some care where it is not supported by independent corroboration.
- 58 Mr Julian Nash gave evidence about the single star wheel machine, and working with Mr Jackson-Ebben on the development of the twin star wheel machine. Mr Davis argued that he was simply saying what his father had told him to say. My impression was that he was very nervous, and determined to follow the party line, particularly in terms of his father's contribution to the invention. Overall, I believe he was trying to be an honest witness, but I cannot fully rely on his evidence.
- 59 Mr Neil Ashton gave evidence as to how the single star wheel machine operated. He was a transparently honest witness who gave his evidence in a blunt, no-nonsense style. However, his knowledge of events and the machine did not appear

to be comprehensive. His evidence was that he was a sales manager, not greatly involved in the technical side of the development of the single star wheel machine, who became involved only at the stage when Mr Jackson-Ebben was trying to improve the operation of the single star wheel.

- 60 In addition, the defendants submitted witness statements from their patent attorney, Mr Michael Deans, and his assistant, Ms Jessica Williams. Mr Deans gave evidence relating to his file on the prosecution of the patent application; the issues relating to this were not pursued at the hearing. Ms Williams' statement provided images and videos from the inspection of the single starwheel machine. Neither witness was cross-examined – the only relevant part of their evidence was what the photographs and videos showed of the single starwheel machine.

Inventorship

- 61 As summarised in the passages from *Yeda*, quoted above, the starting point for entitlement to a patent is the inventor. I therefore consider this question first. Mr Guy Jackson-Ebben claimed to have invented the invention when working on improving the operation of the single starwheel machine in the development of the twin starwheel machine in early 2009, and sought to be added as an inventor on the patent.

Mr Guy Jackson-Ebben's claim to inventorship

- 62 As the claimant pointed out in argument, a key factual question for me to resolve in this respect is whether the invention was embodied in the single starwheel machine. If it was, the claimant accepts that he can have no claim to inventorship as this machine was developed before his involvement.
- 63 Mr Kiefer's evidence was that the single starwheel machine operated by what he referred to as the "Venturi effect". This was that as the nitrogen blew across the top of the lid, it created an area of lower pressure, causing the lid to rise, and thus creating the necessary gap for nitrogen to flow into the headspace⁸. In cross-examination, it emerged that he believed this, not based on any personal knowledge or understanding of the machine, but because (he asserted) he had been told it by one of the engineers at PA, Phil Markham. This description of how the machine worked was supported to an extent by Mr Ashton, who agreed with it when presented with it under cross-examination.
- 64 I found this evidence unpersuasive. Even leaving aside the doubts I have about Mr Kiefer's credibility, his evidence still only goes to what Mr Kiefer had understood Mr Markham to have said about the machine's operation. Mr Markham may not have properly understood how the machine worked himself, or Mr Kiefer may not have properly understood what Mr Markham was telling him (Mr Kiefer accepted he was not himself a technical person). There was no direct evidence from Mr Markham on this point. Mr Ashton, the credibility of whose evidence I have no doubt, provides support for the view that, at least at some point, the view in PA was that the machine

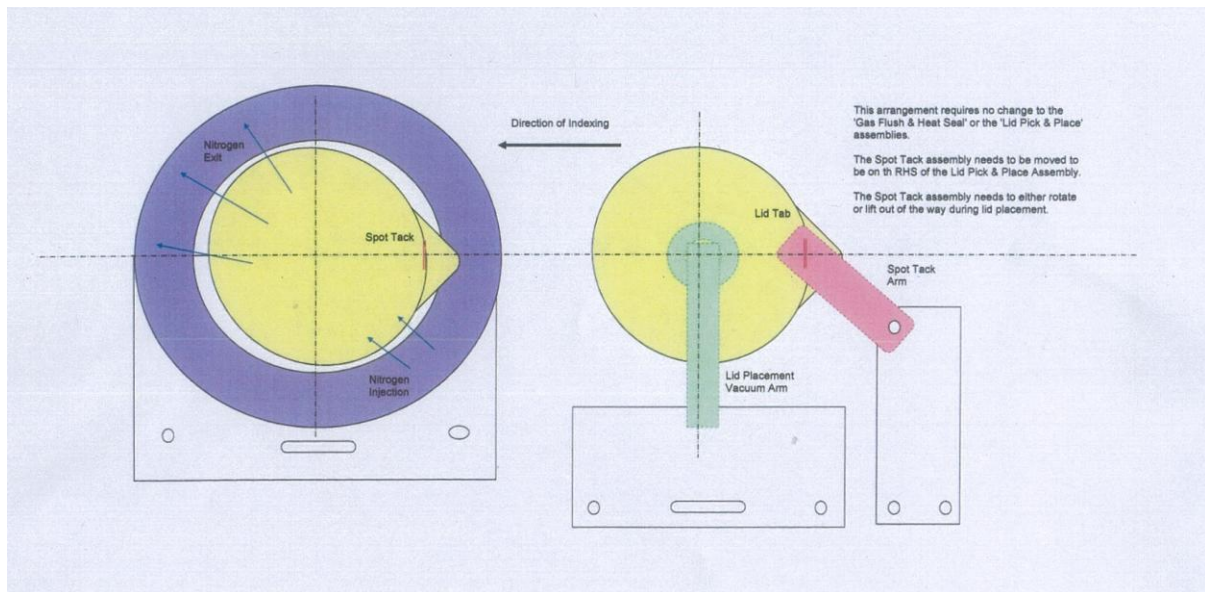
⁸ I believe this is in fact an application of Bernoulli's principle, as Mr St Ville indicated in passing, rather than the Venturi effect, which relates to the drop in pressure when fluid flows through a constricted pipe.

operated as Mr Kiefer describes, but Mr Ashton also was a sales manager rather than involved in the technical side of the invention, so his testimony likewise appeared to lack a direct acquaintance with the actual method of operation of the machine.

- 65 Even if I were to accept that this effect occurred in the single starwheel machine, and might contribute to Nitrogen entering the headspace, that is not the same as showing that the effect described in the patent did not also occur.
- 66 The evidence of Mr Nash on whether the invention was embodied in the single star wheel machine did not go much beyond assertion. In particular, Mr Nash was insistent that not only was the invention embodied in the single star wheel machine, but he was aware of it at the time, before Mr Jackson-Ebben's involvement.
- 67 However, Mr Nash gave no real account of how he developed the invention. I should say that at the outset of Mr Nash giving oral evidence, Mr St Ville wished to ask him some additional questions to add to his evidence in this respect. Following an objection by Mr Davis, I did not allow this as I considered the question of whether Mr Nash to have been the inventor to have been clearly at issue from the start of this case, and Mr Nash had had ample opportunity to give this evidence in his witness statements. The matter did however arise during Mr Nash's cross-examination, and he appeared to have no clear narrative of how the invention came about.
- 68 Furthermore, although a number of documents detailing various technical aspects of the machine were in evidence, and in none of them is the mechanism of the invention described. Mr Nash attempted to explain this as an attempt by him to keep the invention secret, and he argued that the invention would inevitably be implemented in the machine because of its overall specification, eg the diameter of the sealing ring being the right size to fit over the goblet and catch the tab as it descended.
- 69 Mr Julian Nash's evidence broadly supported his father's account, but unsurprisingly related only to the time he and Guy Jackson-Ebben were working on the machine, rather than the time his father was claiming to have invented the invention.
- 70 I found this narrative unpersuasive. Crucially, as I explain below, Mr Jackson-Ebben (working closely with Mr Julian Nash and reporting with him to Mr Nash) was attempting to improve the machine, and in the course of doing so insisted that the spot tack be moved to be positioned on the tab, effectively disabling the invention. Mr Nash and Mr Julian Nash really had no explanation for why they did not stop him doing this if they knew how the invention worked. Mr Nash essentially suggested he was not paying close attention to what Mr Jackson-Ebben was doing, which did not tally well with other evidence on his interactions with Mr Julian Nash and their way of working together. Mr Julian Nash made the point that when trying to improve things, one often tries things that may not work, but this smacked somewhat of an ex post facto rationalisation.
- 71 Mr Jackson-Ebben's evidence gave a detailed account of his work on the twin starwheel machine attempting to improve its operation. His evidence on this, despite strong questioning under cross-examination, was a convincing account of the

process that he went through, backed up by the contents of his contemporaneous notebook and other documents.

- 72 Mr Jackson-Ebben testified that one of his original ideas for improving the performance of the machine was to move the position of the spot-tack from its position remote from the lid tab onto the tab itself. He exhibited the text of an email he claimed to have sent to Katie Welsh, an engineer at PA, in which he requested this change to be made. Notably, it is apparent in the diagram accompanying this text (reproduced below) that the nitrogen injection is at an angle of about 45 degrees to the tab when the goblet is in the heat seal assembly, which, as is noted on the diagram, is unchanged from that supplied by PA.



- 73 On making this change, Mr Jackson-Ebben noted a marked increase in the amount of air left in the headspace – which was the opposite of his intention. On investigation, he discovered the reason was that with the tack remote from the tab, a gap was created between the lid and the rim of the goblet by the lid flexing as the heat seal ring caught it coming down, and this did not happen with the tack located on the tab. This is, of course, the essence of the invention. Restoring the spot-tack to a position remote from the tab thus caused an improvement in the operation of the machine. These results could be seen in Mr Jackson-Ebben's notebook.
- 74 From this, it seems absolutely clear that on Mr Jackson-Ebben's own evidence, the machine as delivered by PA operated in accordance with the invention. It may have done so in an inefficient way, and once Mr Jackson-Ebben had discovered how it was working, his refinements to the machine may have enabled it to make better use of this mechanism (he placed significant emphasis on his arguments on inserting holders to prevent rotation of the goblets between stations, which would help improve the reliability of the positioning of the gap relative to the injector), but it fell within the scope of the claims. In particular, the claimant's arguments that a key contribution he made was in terms of the positioning of the gas injector (so that the nitrogen would more directly blast into the hole) is not supported by the evidence – it is apparent from Mr Jackson-Ebben's results mentioned in the previous paragraph that he achieved the better performance as soon as the spot tack was restored to its

original position, and with the nitrogen injector (on the evidence before me as I note above) being still in its original position.

- 75 The same conclusion is apparent from the photographs and videos of how the machine operates. They do not show the inside of the ring, and thus there is no picture of the gap forming at any point (it is concealed by the heat seal apparatus), but it is clear that the gas is injected at an angle to the position of the tab, and that the spot tack is applied at a position remote from the tab. This is all that is required to fall within the scope of claim 1 – the formation of the gap, and the nitrogen thus flowing into the gap will follow as a mechanical consequence of this setup. It may do so to a greater or lesser extent, and it might (or might not) do so unreliably (perhaps because of an imperfect match between the position of the injector and the gap, which would reduce the amount of gas blown into the gap), but it is still performing the invention.
- 76 Thus, the invention was made before Mr Jackson-Ebben was involved with the machine. As noted above, this finding means that the claimant's claim to inventorship must fail.

Mr James Nash's claim to inventorship

- 77 Mr James Nash is named as the sole inventor on the patent. The claimant challenged this, arguing that he was not, in fact, an inventor, and applied for him to be removed as an inventor from the patent.
- 78 As I explained above, I found Mr Nash's account (such as it was) of having invented the invention unconvincing. However, there was evidence from Mr Kiefer as well as Mr Nash himself that Mr Nash was involved in the technical development of the single star wheel machine, in particular the work carried out on the test stand in September 2007. Mr Kiefer originally testified that Mr Nash had made no technical contribution to the development of the single starwheel machine, but under cross-examination conceded that Mr Nash had been present when the test stand for the single starwheel machine was being used, and that he (Mr Kiefer) did not actually know whether Mr Nash had made any technical contribution. (None of the other witnesses were involved with the development of the machine at that time, and hence could not testify to this).
- 79 The evidence here is sparse. Overall, the picture emerging from the evidence is that PA (on the evidence of Mr Kiefer and Mr Ashton) and Mr Nash and Mr Julian Nash (as I find their evidence to the contrary unconvincing given their behaviour during Mr Jackson-Ebben's experiments with the spot tack) do not appear to have understood how the invention worked, despite it being embodied in the single star wheel machine, until Mr Jackson-Ebben's experiments revealed it. The invention appears to have been serendipity resulting from characteristics of the machine intended for other purposes. But that does not change the fact that it was (serendipitously) invented by those devising the machine – and those people included Mr Nash.

I would find it hard on the evidence before me to conclude that Mr Nash alone invented the invention, but that is not the question I have to answer. I am satisfied on the balance of probabilities that Mr Nash contributed to the devising of the

invention, and thus is entitled to be named as an inventor on the patent. The application to remove him as an inventor therefore fails.

Entitlement

Entitlement of Mr Guy Jackson-Ebben

- 80 The claimant's claim to entitlement to the patent was premised on his being an inventor of the invention. As I have found this not to be the case, this claim must inevitably fail.
- 81 However, the defendants also argued that even were the claimant successful in showing himself to have been an inventor, the patent would still belong to the second defendant by operation of section 39, quoted above, as (the defendants argued) Mr Jackson-Ebben was an employee of the second defendant who fell within the scope of section 39(1), and so any invention he made would belong to the second defendant. I will decide these factual questions on the evidence I was presented with in case this should go further.
- 82 The evidence on what Mr Jackson-Ebben did for Wine Innovations in a technical sense was plentiful, and I have covered it above. The evidence on his employment status was less so. Ultimately, the evidence on this question consisted of Mr Nash asserting that Mr Jackson-Ebben was an employee, and Mr Jackson-Ebben asserting that he was not.
- 83 It was common ground the Mr Jackson-Ebben was not paid for his work. Much was made by the claimant of the defendants' previous denial, when sued for compensation, of the claimant's status as an employee. In particular, Mr Davis pointed to Mr Nash's apparent concession under cross-examination that Mr Jackson Ebben was not an employee (day 2, page 340, lines 12-18):
- “ [Mr Nash]: Jackson had not done two very essential things: signed the contract of employment to become an employee or divided up the £100,000 of investment money.
- Q: Fine, so he had not become an employee?
- A: No, he had not become an employee. He had represented himself as the company but we had not been able to agree an employment term.”
- 84 Mr St Ville argued that Mr Davis' questions here were unfairly put, proceeding on a false basis of what had been said in the defendant's defence to the prior employment claim. I think there is something in this in that Mr Nash's previous statement asserted that there was no employment contract and no payment made – a position he maintained here – rather than an general assertion of Mr Jackson-Ebben not being an employee at all (although that was the overall thrust of the previous defence).
- 85 It is worth noting that of course in the prior litigation, Mr Jackson-Ebben asserted that he was an employee, contrary to his position here. His frank explanation under cross-examination was that he did so because at the time of the previous litigation he was in financial difficulties and seeking any possible solution. Mr Davis also

placed emphasis on the distinction between a contract of service and a contract for services.

- 86 Considering Mr Nash's evidence on this matter overall, although he asserts that Mr Jackson-Ebben was an employee, his actual descriptions of the situation do not correspond so clearly to an employment relationship. The impression given is very much that of Mr Jackson-Ebben being "brought on board" with the intention of convincing him to commit to a £100,000 investment. Mr Jackson-Ebben, on both the evidence of the Nashes and his own, certainly appeared to act as a representative of the company, and worked to improve the company's machine, but this was more in the nature of a collaboration than an employment relationship. The overall impression given was of Mr Jackson-Ebben acting on his own initiative, and to some extent being indulged by Mr Nash (for instance, his various demands on the PA engineers were found irritating by at least some at PA), rather than being controlled and directed by Wine Innovations.
- 87 I find that the nature of Mr Jackson-Ebben's work was such that an invention could reasonably be expected to arise from it, it being directed towards improving the twin starwheel machine. However, I also find on the balance of probabilities, taking account of the factors I outline in the section headed "The Law" above, that Mr Jackson-Ebben was not an employee of Wine Innovations at the relevant time, and hence no manner in which Wine Innovations would have been entitled to the invention as a result had I found him to have been an inventor of the invention.

Entitlement of Wine Innovations

- 88 Mr Davis advanced a number of arguments as to why Wine Innovations was not entitled to the patent.
- 89 Firstly, he argued that as Wine Innovations claimed entitlement via Mr Nash's inventorship, if I were to hold that Mr Nash were not an inventor, then the basis of Wine Innovation's entitlement would fall away. As I have found Mr Nash to be an inventor, this argument falls away.
- 90 Secondly, in the event that I did find Mr Nash to be an inventor, he argued that nonetheless the invention should not belong to Wine Innovations, because at the time that Mr Nash allegedly invented the invention, he was still working for Al Fresco, and therefore the invention would belong to them.
- 91 The evidence on this point was sketchy. The claimant offered no real direct evidence other than the dates of Mr Nash's tenure as MD of Al Fresco. Given the overall lack of clarity as to how the invention came about, pinning down the exact date of it doing so appears difficult, with the work on the test stand and Al Fresco's dissolution occurring at roughly the same time. Furthermore, it is unclear precisely what agreements existed between Mr Nash and Al Fresco or subsequently Wine Innovations. It is true that the defendant did not provide evidence of this either, and it would be more in their power to do so, but Mr St Ville is correct that this argument was only alighted on by the claimant at a very late stage in the proceedings, being developed as a response to the defendants' evidence on entitlement, so I do not believe I can read too much into the defendant's lack of evidence on this point.

92 Overall, the claimant's argument essentially reduces to speculation. This is far too little to overcome the presumption that the applicant for a patent is the one who is entitled to it, under Section 7(4) of the Act quoted above. I therefore find that the attack on Wine Innovation's entitlement to the patent fails.

Invalidity

93 Mr Davis put forward two strands of arguments as to why I should find the patent invalid.

Invalidity on the basis that Wine Innovations was not entitled to the patent

94 Mr Davies sought to argue that as a remedy, if I were to find either that Mr Nash were not an inventor (and thus that there was no inventor left on the patent), or that Wine Innovations were not entitled to the patent, but it was unclear who the true owner was (he suggested Mr Nash had effectively appropriated the invention from his then employer, Al Fresco), then I should revoke the patent.

95 Mr St Ville objected strongly to this argument, arguing it was completely unsupported in law. As I have come to the conclusion that neither situation is the case, I do not need to resolve the questions of whether I would have the power to do so, or if it would be the appropriate approach if I have such a power.

Invalidity on the basis of prior disclosure

96 The second argument Mr Davis made was that if the invention were embodied in the single starwheel machine, then the patent would be clearly invalid, as (he argued) PA was free to sell the machine to anyone. He dismissed any suggestion of confidentiality as nonsense. In support, he identified Mr Kiefer's evidence that Mr Kiefer considered the machine not confidential.

97 This was therefore, Mr Davis argued, a situation such as that found in *Markem v Zipher* where one party's arguments, if followed to their conclusion, led to a patent in an entitlement dispute being clearly invalid. Relying on Jacob LJ's judgment in that case, quoted above, he argued that I should revoke the patent.

98 I consider the evidence on this point to be far too scarce to support a finding that the patent is clearly invalid. It is apparent that there were non-disclosure agreements signed at some points in the development of the invention, one of which was in evidence. I think there is further force in Mr St Ville's submission that the reason for the scarcity of evidence on this point is that the claimant appears only to have alighted on this argument at a late stage in the case. Mr Davis acknowledged this, but argued it only came about because it was a consequence of the defendant's argument. Be that as it may, there is no way that I could say that there is clearly "no bone" in the words of Jacob LJ above.

99 I have not found it clearly established that the invention (as embodied in the single starwheel machine) was available to the public prior to the filing of the application. It is therefore not clearly established that the patent is invalid (for want of novelty), and even on the claimant's argument as to the law, it would therefore not be appropriate for me to invalidate the patent on those grounds.

Conclusion

100 All of the claimant's claims relating to the patent fail. They therefore also fail regarding the international equivalents of the patent.

Costs

101 Both parties sought their costs. The defendants have won and are in principle entitled to a contribution to their costs in accordance with the Comptroller's standard scale. I will allow both parties an opportunity to make submissions on this point.

Appeal

102 Any appeal must be lodged within 28 days

J ELBRO

Divisional Director acting for the Comptroller