



24 December 2009

PATENTS ACT 1977

BETWEEN

Strix Ltd

Claimant

and

Otter Controls Ltd

Opponent

PROCEEDINGS

Opposition under Section 27(5) in respect of application to amend
granted patent GB 2337684

HEARING OFFICER

J Elbro

DECISION

Introduction

- 1 GB 2337684 (“the patent”) was granted on 28 February 2001, having been derived from international application WO 98/36618 which was filed on 17 February 1998 by Strix Ltd (“the patentee”) and published on 20 August 1998.
- 2 On 30 August 2006 the patentee made an application to amend the granted patent under Section 27(1) of the Patents Act 1977 (“the Act”). The application stated that the amendments were intended to overcome prior art which had come to light during opposition proceedings before the EPO. Following consideration of the amendments within the Office, further amendments were filed on 4 May 2007. These amendments were advertised on 3 October 2007.
- 3 On 30 November 2007 Otter Controls Limited (“the opponent”) filed an opposition under Section 27(5) to the requested amendments. The opponent gave two reasons for opposing the amendments these were:
 - The amendment adds subject matter by intermediate generalization
 - The patentee delayed for over 5 years in seeking amendment without good

reason.

- 4 The second of these grounds was struck out in a preliminary decision on the papers issued 2 January 2009 (BL 0/344/08). This was not at issue at the hearing and is therefore no longer at issue, except in relation to costs.
- 5 The matter came before me at a hearing on 28 October 2009. The patentee was represented by Mr Adrian Samuels of Frank B. Dehn and Co., and the opponent by Mr James Cross of RGC Jenkins.

The law

- 6 The request to amend was made under Section 27(1) of the Act and the opposition under Section 27(5) of the Act which read:

Section 27

(1) Subject to the following provisions of this section and to section 76 below, the comptroller may, on an application made by the proprietor of a patent, allow the specification of the patent to be amended subject to such conditions, if any, as he thinks fit.

...

(5) A person may give notice to the comptroller of his opposition to an application under this section by the proprietor of a patent, and if he does so the comptroller shall notify the proprietor and consider the opposition in deciding whether to grant the application.

- 7 The opponent pleaded that the amendments added matter, contrary to Section 76(3)(a) of the Act. Section 76(3) reads:

Section 76(3)

No amendment of the specification of a patent shall be allowed under section 27(1), 73 or 75 if it

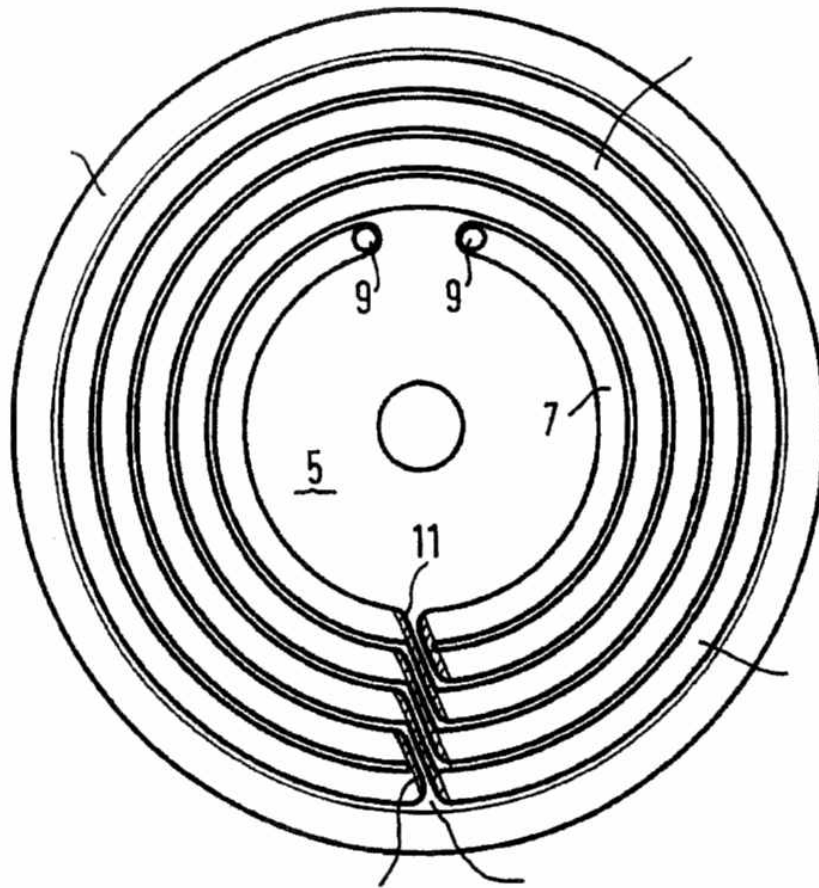
- (a) results in the specification disclosing additional matter, or
- (b) extends the protection conferred by the patent.

- 8 At the hearing the opponent made a reference to the amendment possibly failing to comply with Section 76(3)(b). However, they accepted that they had not pleaded this and did not seek to rely on it.

The patent

- 9 The patent relates to the field of heating technology. The heater is one of the type often used in vessels for heating liquid. Typically there will be a base plate in the vessel, made of an insulating material, and a thick film of electrically resistive material will be directly printed upon the plate in the form of a track. In use, a current will be applied to the thick film track which will cause the track to heat up, thereby heating the water.
- 10 The application is aimed at providing an arrangement which allows for an efficient track layout whilst reducing the risk of the track failing. It is a known problem that if the current is such that hotspots develop within a part of the track then that part can overheat, and eventually fail, causing the heater to stop working. This is particularly problematic at tight bends in the track, where the track narrows and is prone to overheating. One solution is to avoid tight bends, but that makes the

layout less efficient. The patent solves the problem by instead providing bridges where tight bends would otherwise be needed (labeled 11 in figure 1 from the patent, reproduced below).



- 11 The patent has one independent claim which reads as follows, with the requested amendments shown (additions in underline and deletions in strikethrough):

A liquid heating vessel including a thick film printed electric heater comprising a substantially circular stainless steel support plate on which is provided an insulating substrate layer of glass, glass-ceramic or ceramic, said layer being provided with a thick film resistive heating track being substantially of a first track material and printed in a pattern including at least, wherein the resistive track comprises two discrete sections in the form of concentric C-shaped rings connected electrically in series by a bridge of second track material formed as a printed section of ink, said bridge thereby having a resistivity lower than that of the resistive first track material, said heating track being terminated by two terminal portions to which connections are made for supplying electrical power to the heater, so that in use current flows into said bridge via one section

and out of said bridge via the other section such that failure of the track due to overheating by current crowding is prevented by said bridge.

Intermediate Generalisation

- 12 At the hearing there was some discussion as to the relevant case law for consideration. Both parties agreed that the case of *Bonzel*¹ sets out the basic test for determining added matter. The three steps for determining whether matter has been added were clearly set out in the judgment of Aldous J:
- (i) To ascertain through the eyes of the skilled addressee what is disclosed, both explicitly and implicitly in the application.
 - (ii) To do the same in respect of the patent as granted.
 - (iii) To compare the two disclosures and decide whether any subject matter relevant to the invention has been added whether by deletion or addition. The comparison is strict in the sense that subject matter will be added unless such matter is clearly and unambiguously disclosed in the application either explicitly or implicitly.
- 13 Both the patentee and the opponent also agreed that so-called “intermediate generalizations” constituted added matter under UK law, the primary relevant case law being found in *Palmaz*². The disagreement was whether or not the amendments proposed actually constituted an intermediate generalization.
- 14 In *Palmaz*, the patentee had attempted to amend his patent by incorporating a feature that the claimed stent (a form of expandable tubular scaffolding to hold open a passageway within the body, such as an artery) comprised second circumferential bars. However, the second bars were only disclosed within the context of a stent having first bars that were parallel. This was found to add subject matter. The second bars were only disclosed to be in the required form in the context of the first bars having a particular form, with no indication that there was any inventive significance in the second set of bars being circumferential in any other context, and the patentee had selected one of the two related features and not the other for addition to the claim. In his judgment Pumfrey J stated:
- “If the specification discloses distinct sub-classes of the overall inventive concept, then it should be possible to amend down to one or other of those sub-classes, whether or not they are presented as inventively distinct in the specification before amendment. The difficulty comes when it is sought to take features which are only disclosed in a particular context and which are not disclosed as having any inventive significance and introduce them into the claim deprived of that context. This is a process sometimes called ‘intermediate generalisation’”*
- 15 The case of *Philips v Tatung*³ confirmed that the concept of intermediate generalization was a recognized within UK law; the Court of Appeal, confirming the *Palmaz* test said “*The concept of intermediate generalisation is a well established species of added matter*”. This was further confirmed in *Vector v Glatt*⁴.

¹ *Bonzel & Schneider (Europe_ AG v Intervention Ltd* [1991] RPC 553

² *Palmaz v Boston Scientific BV* [1999] RPC 47

³ *LG Philips LCD Co. Ltd v Tatung (UK) Ltd* [2006] EWCA Civ. 1774

⁴ *Vector Corporation v Glatt Air Techniques Inc* [2007] EWCA Civ 805

Argument and analysis

16 The opponent argued that the selection of a number of features from the description for insertion into claim 1 had resulted in a collage which would not have been expected by the skilled person on reading the original disclosure.

17 They also identified three of the features which they argued were particularly problematic:

(i) Substantially circular stainless steel support plate on which is provided an insulating layer of glass, glass-ceramic or ceramic

(ii) Bridge of a second track material formed as a printed section of ink, said bridge thereby having a resistivity lower than that of the first track material

(iii) Failure of the track due to overheating by current crowding is prevented by the bridge

18 However, they accepted that some of the features were supported. In particular the tracks being 'in the form of C-shaped rings' was a feature of a previously dependent claim and its inclusion within claim 1 was accepted.

'Substantially circular stainless steel support plate on which is provided an insulating layer of glass, glass-ceramic or ceramic'

19 The opponent argued that the addition of the feature relating to the construction of the support plate was not allowable and referred to the judgment in *Palmaz*. They argued that the feature was never indicated as having any inventive significance and had been inserted into claim 1 'shorn of its context' as this feature was originally included in the description of embodiment one which contained a number of other features (specifically features relating to the layout and printing of the track) which had not also been incorporated into the amended claim.

20 In response, the patentee argued that the addition of this feature represented a legitimate narrowing of the claim to a specific sub-class of heaters which are clearly the type of heaters being discussed within the description when read as a whole. They point to a number of places within the description where the type of heater is described, from the opening paragraph that states the invention relates to thick film electric heaters comprising an electrically resistive track applied to an insulating substrate. Further detail, matching the wording of amended claim 1, is provided on page 10 of the description in the discussion of embodiment 1 and later embodiments are clearly modifications of the arrangement in the first embodiment so would all be expected to incorporate this feature.

21 In *Palmaz*, the patentee was seeking to amend claims so as to incorporate one feature that had always been disclosed as being essentially linked to a second feature. I consider that this is not the case with the amendment under consideration here. The patentee is seeking to restrict the claim to a specific sub-class of heaters and has added the relevant features to the claim. The

relevant paragraph in the specification, found on page 10 lines 11-22, reads:

Figure 1 shows an electric thick film heater 1 comprising a stainless steel plate 3 on which is provided an insulating layer of glass, glass ceramic or ceramic 5, eg Dupont 3500. On top of this insulating layer 5 are printed a number of C-shaped resistive thick film heating tracks 7. Each of the four outermost tracks 7 extends around substantially 360°, with opposed ends being separated only by a relatively small gap, in the order of 1.5-2mm. The heating tracks 7 are applied to the insulating layer 5 by printing of suitable metal loaded inks such as Dupont 3642/45 mixture, in a manner well known in the art.

22 There is no feature which is essentially linked to the construction of the support plate which has not been incorporated into claim 1. Whilst there are a number of features within this paragraph, in particular those relating to the layout of the track, that have not been included within claim 1 these are not in any way related to the construction of the support plate. The patentee has taken all the features describing the support plate and included these in claim 1, thus narrowing claim 1 to relate to a specific sub-class of heaters.

23 I find that this is a legitimate narrowing of claim 1. The skilled reader would, from the start of the description, have a clear view as to the type of heater being considered, that is a printed track on an insulating layer. On further reading of the embodiments the skilled reader would understand that the heater is one of a well known type where the insulating layer is made of glass, glass-ceramic or ceramic. The fact that the plate is circular is shown in the figures, but this feature proved non-contentious at the hearing.

‘Bridge of a second track material formed as a printed section of ink, said bridge thereby having a resistivity lower than that of the first track material’

24 The opponent argued that this amendment was an unsupported broadening of the claim. The original claim read ‘a bridge of material having a resistivity lower than that of the track material’. In the opponent’s view this clearly required the material of the bridge to have a lower resistivity than the material of the track, whereas the currently proposed wording could be read so that the bridge was required to have a lower resistivity but that might be a property of the way the bridge was formed rather than a property of the material itself. The opponent argued that the ‘thereby’ in this clause could be taken to apply to the words ‘formed as a printed section of ink’. This might then mean that, rather than the material having a lower resistivity, the material could have the same or even higher resistivity, but the manner in which it was printed caused the bridge overall to have a lower resistivity. They argued that this view was further supported as the claim did not state whether the resistivity was being measured by volume or by surface and that by printing material of the same volume resistivity more thickly a bridge could be formed which would have a lower surface resistivity.

25 The patentee argued that this would not be a reasonable interpretation of the claim, that the skilled reader would understand the claim to require that the material has a lower resistivity, and that the new wording has merely clarified this by referring to the first and second track materials.

26 On construing the claim I find that the skilled reader would, in view of the disclosure of the specification as a whole, consider that the material forming the bridge must be of lower resistivity than the material forming the tracks. The description is clear that it is the material of the bridge which has a lower resistivity than the material of the track and the skilled reader would read the claim in light of the description. The claim is clear that there are two track materials, the first forming a heating track and the second forming a bridge. The skilled reader would understand that the claim is saying that the track and bridge are formed of first and second track materials, both being of printed ink, and that it is the different materials that results in the bridge having a lower resistivity.

27 It seems to me that the drafting of the current claim is not ideal and it is of course preferable that claims are totally clear and unambiguous. However, I agree with the argument of the patentee that the amended claims are not required to be perfect but rather they must be good enough. With this in mind, whilst it may be possible to argue that the words of the claim may be read differently from the way the patentee suggests, I do not believe the skilled reader would do so. In this case the amendment is good enough.

28 The skilled reader would learn nothing about the construction of the bridge within the invention from the amended claim over what he would have learnt from reading the original disclosure. Therefore, the newly added wording does not add matter beyond what was originally disclosed and does not fall foul of Section 76(2)(a).

29 At the hearing the patentee did raise the point that this issue was not raised when the opposition was first filed and was raised late in the proceedings. The patentee did not press this point and, as I have found in their favour on substance, it is not necessary to consider this procedural point.

'Failure of the track due to overheating by current crowding is prevented by the bridge'

30 At the hearing, the opponent argued that the addition of the final clause to claim 1 was not allowable as it did not include the requirement that the bridge replace a tight bend within the track. The opponent's argument was that the description focused on the need to replace such bends with bridges in order to avoid current crowding and subsequent failure but the addition to the claim, without the reference to a tight bend, was taking only half of the two parts of this feature as the bridge could now be used in a way in which there was no bend to replace.

31 In response, the patentee argued that this clause merely added a functional context to the claim, explaining the purpose of the bridge.

32 I find that this amendment does not teach the skilled reader anything new, beyond the disclosure of the original description. The clause added to the claim informs the skilled reader of the purpose of the bridge within the heating vessel. That purpose being to avoid overheating by current crowding. It is clear from the start of the specification that the invention is intended to prevent failure due to current crowding and that this is done by means of a bridge.

The collage of multiple features being added to claim 1

- 33 The opponent argued that the selection of seven separate features to add to claim 1 resulted in the claim having a scope which was not disclosed in the original application and would not have been anticipated by the skilled reader, ie it was an intermediate generalisation.
- 34 Following the reasoning set out in *Palmaz*, I find that the amendment does not represent an intermediate generalisation. The amendment has taken a number of features to narrow the claim to a particular sub-class of heater, these are the features relating to the use of the heater in a liquid heating vessel and those relating to the construction of the insulating plate. Other features relate specifically to the construction of the heating track; these are the C-shaped tracks, the two types of material and the terminal portions. The final clause then adds a functional aspect to the claim. This is permissible under the *Palmaz* test. The patentee has narrowed the claim to a specific sub-class which, although not explicitly specifically presented within the original specification, was present when the application was filed. No feature has been included in claim 1 which was originally disclosed as having inventive significance only in combination with another feature which has not also been included.
- 35 More generally, following the test set out in *Bonzel* it is necessary to first consider, through the eyes of the skilled person, what was originally disclosed, second to consider what is now disclosed and third to compare the two to determine whether subject matter has been added.
- 36 On reading the specification as a whole the skilled reader would understand that the invention is particularly applicable to a certain sub-class of heaters, namely those for use in liquid heating vessels and comprising a thick film track on an insulating substrate, and that the purpose of the invention is to minimize failure due to current crowding. This is evident from reading the first two pages of the description and is consistent throughout the entire specification.
- 37 The skilled reader would consider the description on pages 10-12 of the specification, detailing an embodiment of the invention to teach the arrangement of amended claim 1. This embodiment includes all the features which have been added to the claim together in one arrangement. Further, this is the main description of the invention. The skilled reader would understand that the brief descriptions of other embodiments merely describe alterations that may be made to the arrangement of embodiment 1.
- 38 On reading the specification as a whole I find that the skilled reader learns nothing new when reading amended claim 1 over what was taught by the original disclosure and therefore does not add matter.

Conclusion

- 39 I find that the proposed amendment does not add matter. I therefore allow the patent to be amended as requested.

Costs

- 40 At the hearing both parties addressed the issue of costs. In this case there are two issues to consider, first the issue of whether costs should be made with regard to the opposition to the amendment and second whether costs should be made with regard to the striking out of the discretion point.
- 41 The usual rule in *inter partes* cases before the Comptroller is that the winning side is entitled to a contribution to its costs based on the published scale. However, as the opponent argued, the Patents Hearing Manual indicates that the situation is different for oppositions to amendment:
- “5.41 In cases of opposition to amendment of a patent under section 27 of the 1977 Act, it was customary in the past either to award costs to the opponents or to make no award, on the grounds that the opponents were serving a public good by bringing about a rigorous scrutiny of the amendments. However, this is not now a line to be followed automatically when deciding costs: whether or not the opponents were serving any interests beyond their own is just one factor to be considered in all the circumstances of the case - see eg *Crown Cork and Seal Technologies Corp v Calix Technology Ltd* BL O/062/03 and *J Maple & Son Ltd v Pownall* BL O/001/04 where costs were awarded to the proprietor.”
- 42 At the hearing the patentee put forward the argument that the opponent was acting in self-interest and not for the public. The opponent countered that while this might be at least in part true, all opponents to amendments are likely to be doing so because they have interest in the outcome and in itself this does not mean that they are not also serving the public good.
- 43 The patentee bolstered its argument by reference to the matter decided in the preliminary decision on this case – the striking out of the objection of lack of good faith. The patentee argued that it was clear from the start that the opponent could not win on this point and should have amended the pleadings accordingly. The patentee pointed out that although the proceedings were filed only the day after the new law formally came into effect, the Office had issued a practice notice the month before and it was well known that the change was being made and its intended effect.
- 44 The opponent on the other hand argued that they had a case and, had it not been for the *Markem v Zipher*⁵ case, issued in September 2008, they may have won this point. Further, they pointed out that prior to *Markem v Zipher* there was no case law on this point.
- 45 It seems to me that in all the circumstances an award of costs in favour of the patentee would be justified. The patentee has incurred expense dealing with the opponents arguments which I have ultimately not upheld. Although I would not characterise the opponent’s maintenance of the bad faith objection as unreasonable, it is fair to say that the likelihood of success on this point would seem to have been low even before the *Markem* judgment. Further, given the generally straightforward nature of the case, the level of the award will be low, certainly not an amount likely to deter represented parties from mounting an opposition and thus harming the “public good” in terms of scrutiny of amendments.

⁵ *Markem Corporation & Anor v Zipher Ltd* [2005] EWCA Civ 267

46 No request was made for an award departing from the scale. These proceedings were started prior to 3 December 2007, therefore it is the scale published in TPN 2/2000 which applies. The proceedings were straightforward and the hearing consisted only of argument. On the other hand, there was a need for a preliminary decision, but this was one on the papers, and had the effect of simplifying the issues. I find that an order on the lower end of the scale is appropriate and order that Otter Controls Ltd pay Strix Ltd the sum of £800 as a contribution towards their costs. This sum should be paid within seven days of the expiry of the appeal period below. Payment may be suspended in the event of an appeal.

Appeal

47 Under the Practice Direction to Part 52 of the Civil Procedure Rules, any appeal must be lodged within 28 days.

J Elbro

Divisional Director acting for the Comptroller