



## PATENTS ACT 1977

APPLICANT	Richard Gardiner
ISSUE	Whether an application for amendment of patent number GB2343415 under section 27 satisfies the requirements of section 76(3)
HEARING OFFICER	B Micklewright

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## DECISION

### Introduction

- 1 This decision concerns whether to allow an application for post-grant amendment to patent GB2343415 granted on 15 November 2000 entitled “An Inkjet Printer” in the name of Richard Gardiner.
- 2 The patentee requested amendment of the patent in the light of a further prior art document, US5719602 (“HACKLEMAN”). The patentee submitted two sets of claims as a “main request” and an “auxiliary request”. The Office concluded that the amendments proposed in the main request were not allowable on the grounds of disclosing additional matter extending beyond that disclosed in the application for the patent as filed. The amendments proposed in the auxiliary request were however allowed and the application for amendment proceeded on that basis.
- 3 The patentee remained of the opinion that the amendments proposed in the main request are acceptable and sought to persuade the office of this in a number of rounds of correspondence. Agreement on the issue could not however be reached and it therefore fell to me to consider the matter in a hearing on 10 September 2015. The patentee, Mr Gardiner, attended the hearing in person, without legal representation.

### The invention and the new prior art

- 4 The application relates to an inkjet printer for printing onto a substrate. Specifically, the printer senses the movement of the substrate as the substrate moves relative to a print head. Only one example of how this could be achieved is described in the specification as originally filed: a sensor in the form of a digital encoder driven by a friction wheel. HACKLEMAN discloses a printer which also measures the

displacement of a substrate directly. In this document the sensor disclosed is an optical detector which is said to detect individual fibres within the substrate paper.

### **The proposed amendments**

- 5 The proposed amendments to Claim 1 filed with the Agent's letter of 18 June 2014 as set out in the main request are as follows, with the amendment emphasised:

1. An ink jet printer comprising a path along which a substrate to be printed can pass, an array of fixed ink jet heads each having a plurality of nozzles, the array comprising a plurality of rows of inkjet heads, each row extending transversely of the path and comprising a plurality of inkjet heads, the rows being spaced apart from one another in the direction of the path, and means for firing the ink jet heads in response to movement of the substrate as measured by sensing means in physical communication with the in use substrate.

- 6 The auxiliary request incorporates the specific encoder and friction wheel arrangement. Since this has been considered allowable there is no need for me to consider it further.
- 7 Additionally, in an attorney's letter of 16 December 2014 a further 'modified auxiliary request' was proposed. In addition, during and following the hearing Mr Gardiner made further requests that other alternative claims be considered. I will address these later in my decision.

### **The law**

- 8 Section 76 of the Patents Act 1977 sets out the law in relation to added subject matter. In particular section 76(3) states:

*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.*

- 9 The courts have considered the provisions concerning added matter in various situations. Jacob J (as he then was) provided a helpful summary of what is required in *Richardson-Vicks Inc's Patent*<sup>1</sup>:

*"The test of added matter is whether a skilled man would, upon looking at the amended specification, learn anything about the invention which he could not learn from the unamended specification."*

- 10 Matter may be regarded as having been disclosed if the skilled reader would realise that it was implicit in the original document. Matter which is not disclosed, but which the skilled reader would find it obvious to add, is not however regarded as having been disclosed.

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<sup>1</sup> *Richardson-Vicks Inc.'s Patent* [1995] RPC 568

- 11 A number of situations arise where a consideration of added matter may be necessary. One such situation of relevance to the present case is when a generic term used in the specification can be regarded as necessarily disclosing a relatively small number of particular alternatives. A restriction to one of these may be an allowable amendment. For example<sup>2</sup> if a pump or valve is disclosed as for use with “fluid” then it may be reasonable to construe this as disclosing use with either liquid or gas, so an amendment to use only one of these could be regarded as a restriction of the disclosure rather than added subject matter. Although a helpful example I note that this example is hypothetical and has not been approved by the courts. The applicant sought to rely on this example in their submissions. *In Noxell Ltd’s application*<sup>3</sup> the hearing officer however refused to allow the applicants to specify that a layer of plastic film was non-peelable, rejecting their submission that the word “layer” disclosed two particular alternatives: peelable and non-peelable layers.
- 12 A further consideration is that amendments which limit the scope of a claim by the introduction of one or more features from the description or claims may in certain circumstances add matter through what is known as an “intermediate generalisation”. The principle of intermediate generalisation is set out by Pumfrey J in *Palmaz’s European Patents (UK)*<sup>4</sup>:

*"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'."*

- 13 The disclosure of the application includes all the information that a skilled person may ascertain about the invention. An intermediate generalisation is considered to add matter because it results in the skilled addressee being presented with information which they could not have derived from the application as originally filed, concerning the importance of a newly claimed feature.

### **Assessment**

- 14 In considering what the skilled person would learn from the amended specification as compared with the unamended specification I will first consider the disclosure of the unamended specification. Claim 1 as granted refers only to “means for firing the ink jet heads in response to movement of the substrate”. Claim 2 fleshes this out by providing “sensing means” for “sensing the movement of the substrate along the path and for producing a signal to fire the ink jet heads each time the substrate moves a predetermined distance.”
- 15 The only further disclosure in the specification as filed is found on page 5 lines 17-20 of the published application, and in Figure 2:

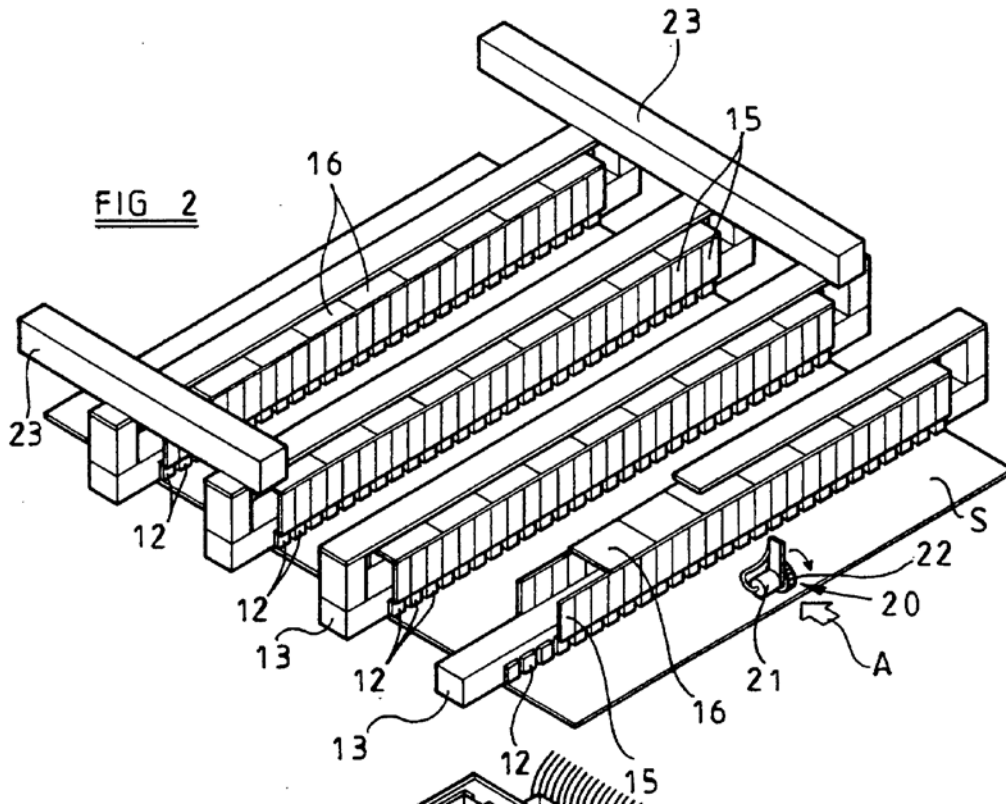
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<sup>2</sup> See for example the *Manual of Patent Practice* paragraph 76.13, available at <https://www.gov.uk/government/publications/patents-manual-of-patent-practice>

<sup>3</sup> *Noxell Ltd’s Application* (BL O/137/92)

<sup>4</sup> *Palmaz’s European Patents (UK)* ([1999] RPC 47, upheld on appeal [2000] RPC 631)

“As shown in Figure 2, the ink jet printer includes a sensor 20 for sensing the movement of the substrate S along the path A and for producing a signal to fire the ink jet heads 12 each time the substrate S moves a predetermined distance. The sensor 20 is in the form of a digital decoder 21 driven by friction wheel 22.”



The proposed amendment incorporates into claim 1 sensing means “*being in physical communication with the in-use substrate*”. There is no explicit reference to the sensing means being in physical communication with the substrate in the specification as originally filed. Rather it makes reference to the sensor at two levels of abstraction; firstly that it is a “sensing means” in its widest sense, and secondly the specific embodiment of a friction wheel and digital decoder. The amendment sought is narrower than the first, but broader than the second and I must decide whether this intermediate definition was disclosed in the specification as originally filed.

- 16 At the hearing Mr Gardiner sought to persuade me that the person skilled in the art would have understood at the filing date that the only way of making the invention was to use a sensing means in physical communication with the substrate. He argued that the approach set out in HACKLEMAN was not practical. I am not convinced by these arguments and, given the evidence in front of me in relation to HACKLEMAN, conclude that the skilled person would not consider such a limitation to be necessary. Moreover, even if it could be considered obvious to the skilled person that a sensing means in physical communication with the substrate would be more practical, this does not mean that such a sensing means is disclosed in the application. It must be at least implicit in the original document.

- 17 One of the applicant's main arguments is that it would be obvious to the person skilled in the art that the "sensing means" includes only a small number of possibilities: one wherein the sensor is in physical contact with the substrate and one wherein the sensor is remote or spaced. They argue that the situation is analogous to the pump or valve example where the term "fluid " could include the two possibilities "liquid" or "gas".
- 18 I am not convinced that the analogy holds for the present case. Rather in this case, I am faced with a situation which is more analogous to that of *Noxell Ltd's application* in which the submission that the word "layer" disclosed two particular alternatives, namely peelable and non-peelable layers, was rejected. Whilst the skilled reader of a patent specification relating to a pump or valve could possibly construe "fluid" as meaning either "liquid" or "gas", and therefore both alternatives could be considered implicitly disclosed, the skilled reader of the present specification would not construe "sensing means are provided for sensing the movement of the substrate along the path" to mean either "sensing means in physical communication with the substrate" or "sensing means not in physical communication with the substrate". There is no indication in the specification as filed that the sensing means being in physical communication with the substrate is of importance or even of relevance, except for the fact that the only embodiment comprises a sensing means which happens to be in physical communication with the substrate. There are all sorts of other properties a sensing means may or may not have that happen to be a feature of the described embodiment, for example that it is located towards the centre of the substrate (see Figure 2). The person skilled in the art would not in my view, from reading the specification as originally filed, understand that it discloses, either explicitly or implicitly, that a key feature of the invention is that the sensing means is in physical communication with the substrate, even though they may consider this obvious.
- 19 The embodiment discloses a "sensor in the form of a digital decoder driven by a friction wheel" which is in physical communication with the substrate by virtue of the friction wheel. It does not seem to me to be permissible to strip away the other features of the embodiment (the digital decoder and the friction wheel) leaving only a sensing means in physical communication with the substrate. This feature is only disclosed in the context of a digital encoder and a friction wheel and there is no disclosure that the sensing means being in physical communication with the substrate is of inventive significance. This feature cannot therefore be introduced into the claims deprived of that context. To do so amounts to an intermediate generalisation and adds subject matter.
- 20 In summary, the specification as originally filed does not disclose that the sensing means being in physical contact with the substrate is of any inventive significance. The person skilled in the art, reading the amended specification, would therefore learn something which they would not learn from the specification as unamended. The proposed amendment thus adds subject matter and is not allowable.

### **Other proposed amendments**

- 21 A modified auxiliary request was proposed in the patentee's attorney's letter dated 16 December 2014. In this request claim 1 included "*sensing means in physical communication with the in use substrate for sensing the movement of the substrate along the path and for producing a signal to fire the ink jet heads each time the*

*substrate moves a predetermined distance.*” It is essentially a combination of granted claims 1 and 2 with the additional limitation of the sensing means being in “physical communication”. The addition of the features of claim 2 does not overcome the problems in relation to added subject matter and the above reasoning applies to this claim as it does to the claim of the main request.

- 22 Both during and following the hearing Mr Gardiner made various other informal proposals in relation to amending claim 1. The first relates to “an encoder type sensing means driven by the movement of the substrate along the path” and the second to “a sensing means including a digital encoder driven in synchronisation with the movement of the substrate”. My understanding is that the intention of these proposals is to ensure the claim is valid over HACKLEMAN whilst still remaining sufficiently broad so as to include, for example, a linear encoder as well as the rotary encoder described in the embodiment.
- 23 These proposals both fail for essentially the same reasons as the main request above. Assuming the proposed amendments may be construed so as to exclude the HACKLEMAN system, which in my view is by no means evident, they must involve some form of physical contact to enable the encoder to be driven in the manner suggested in the proposals. Moreover the only disclosure relates to driving the digital decoder by a friction wheel. Given that the general “sensing means” is disclosed in HACKLEMAN, the only amendment which could be allowable would therefore be to claim the specific embodiment, namely the “digital decoder driven by a friction wheel.” The amendments specified in these alternative proposals also therefore include added subject matter.

### **Conclusion**

- 24 I therefore conclude that the amendments proposed to the patent in the main request, and in various other supplementary proposals made to me prior to, during or after the hearing, are not allowable amendments because they disclose subject matter not in the specification as filed, contrary to section 76(3) of the Patents Act 1977. I therefore refuse to allow the application for amendment to proceed based on the main request. The office has already concluded that the auxiliary request is allowable and the amendment to the patent will therefore continue to proceed on that basis.

### **Appeal**

- 25 Any appeal must be lodged within 28 days after the date of this decision.

### **B Micklewright**

Deputy Director, acting for the Comptroller