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Case No: HC09C04263, HC10C0081

IN THE HIGH COURT OF JUSTICE
CHANCERY DIVISION
PATENTS COURT

Royal Courts of Justice
Strand, London, WC2A 2LL

Date: 14 February 2011

Before :

THE HON MR JUSTICE ARNOLD

Between :

DATACARD CORPORATION **Claimant**
- and -
EAGLE TECHNOLOGIES LIMITED **Defendant**

Henry Carr QC and Michael Hicks (instructed by Stephenson Harwood) for the Claimant
Thomas Hinchliffe and Joe Delaney (instructed by CMS Cameron McKenna LLP) for the Defendant

Hearing dates: 17-20, 24-25 January 2011

Approved Judgment

I direct that pursuant to CPR PD 39A para 6.1 no official shorthand note shall be taken of this Judgment and that copies of this version as handed down may be treated as authentic.

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THE HON MR JUSTICE ARNOLD

MR. JUSTICE ARNOLD :

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Introduction

1. In these actions the Claimant (“DataCard”) alleges that the Defendant (“Eagle”) has infringed two patents and two registered trade marks owned by Datacard: (i) European Patent (UK) No. 1 458 572 (“the RFID Patent”), (ii) European Patent (UK) No. 1 534 530 (“the Error Loading Patent”), (iii) UK Registered Trade Mark No. 1399698 (“698”) and (iv) UK Registered Trade Mark No. 1399699 (“699”) (698 and 699 collectively, “the Trade Marks”). Eagle denies infringement and counterclaims for revocation of both the Patents. DataCard has applied to amend the Error Loading Patent, and it proposes to amend the RFID Patent although it has not yet formally applied to do so. There is no challenge to the validity of the Trade Marks. The issues relating to the Patents and those relating to the Trade Marks are entirely distinct.

The parties

2. DataCard is one of the biggest suppliers in the world of card printers and related products and services, including printer ribbons. Card printers are used to print on plastic cards such as credit cards, ID cards, membership cards, loyalty cards and gift

cards. DataCard also supplies printers for printing passports, driving licences and other documents. DataCard's card printers include large, mid-size and desktop models. These actions principally concern the desktop models, which include the SP Plus and CP Plus ranges. In the UK DataCard markets its desktop card printers through six authorised distributors.

3. DataCard markets its desktop card printers and ribbons under a number of trade marks. Its house mark is DATACARD. This is correctly presented as "DataCard", but is often written as "Datacard" (or sometimes "Data card") by third parties. DataCard uses a variety of product marks in conjunction with this house mark, often with sub-brands as well. Thus one product referred to at trial was the DataCard ImageCard II Plus.
4. Eagle is a relatively small company that sells card printers manufactured by a range of different manufacturers, including those of DataCard. In addition, Eagle sells printer ribbons and other related products. As well as selling printer ribbons made by the various printer manufacturers, again including Datacard, it also sells compatible printer ribbons i.e. ribbons that work in a particular manufacturer's printer, but are made by someone else. The compatible ribbons sold by Eagle are made in China by a company called Kanon. Previously Eagle obtained compatible ribbons made in the USA by Sony Chemicals.
5. Eagle markets the printers, ribbons and other products primarily through a large number of resellers. It also sells directly to end users, however, in particular via its website located at www.eagletechnologies.co.uk. As well as maintaining its own website, Eagle also provides some of its resellers with a "managed website service". By this, it provides its resellers with a version of its website that the reseller can customise and make its own. The core parts of a reseller's website provided under the "managed website service" are the same as Eagle's website.
6. Eagle markets all its compatible ribbons (i.e. regardless of the manufacturer of the printer) under the trade mark PLUS-RIBBON. This is correctly presented as "plus-ribbon", but is often written as "Plus-Ribbon". Although it uses the trade mark EAGLE on its website and in its marketing materials, it does not use this as a house mark for its compatible ribbons.

Technical background

7. This case involves two main areas of technology.

Printer technologies

8. There are a number of different types of printer technology. This case principally involves thermal transfer printing. In a monochrome thermal transfer printer, resin from a ribbon is melted onto the surface to be printed by a heated print head. In a colour thermal transfer printer, the dye from a ribbon is diffused into the surface to be printed by the print head. Thermal transfer printing is used in barcode label printers, card printers and photograph printers. It was also used for a time in fax machines before laser printing became affordable.

9. Thermal transfer ribbons comprise a thin polyester backing coated with dye. In colour printing different areas of the ribbon are coated with panels of different colours: yellow (Y), magenta (M), cyan (C) and black (K). In card printing the ribbon may also be coated with clear protective topcoat (T). Ribbons are quite expensive and so wastage is undesirable.
10. Thermal printing ribbon needs to be matched to the settings of the thermal print head. This is because differences in chemistry can affect the optimum temperature settings of the print head. Colour ribbons from one manufacturer can produce different colours to ribbons from another manufacturer. This can be compensated for by adjustments in the print driver software which change the temperature settings of the print head.
11. Card printers typically use a number of different types of ribbon for different purposes. The printer needs to know what type of ribbon has been installed. When printing in colour, it also needs to know where the start of a sequence of panels is on the ribbon.
12. Another type of printer technology is ink jet printing. In an ink jet printer liquid ink is stored in a cartridge and is sprayed through fine nozzles onto the surface to be printed.
13. The use of inked ribbons wound on cylinders has been well known in various kinds of printing, including thermal transfer printing, for many years. Typically there are two cylinders (also called rolls and cores). One (called the supply cylinder) carries the unused ribbon. The other (called the take-up cylinder) takes up the ribbon after it has been used for printing. One cylinder may be driven to advance the ribbon (usually the take-up cylinder) or both cylinders may be. A common way to drive the cylinder is by means of ribs on the inside of the cylinder which engage with splines on the outside of spindles or hubs on the printer.
14. There are three main ways of installing ribbons wound on cylinders in a printer:
 - i) The cylinders can be installed by the user on hubs or spindles in the printer. I shall refer to this as “direct loading”.
 - ii) The cylinders can be installed by the user onto a reusable object outside the printer which is then installed by the user in the printer. I shall refer to such objects as “carriers”, but it is common ground that this is not a term with a single, universally accepted meaning in the field.
 - iii) The cylinders can be installed by the manufacturer in a disposable object which the user installs in the printer. I shall refer to such objects as “cartridges”, but again it is common ground that this is not a term with a single, universally accepted meaning in the field.
15. By “spindle” in this context I mean an object which engages a cylinder by passing through the cylinder from one side to the other side. Thus a spindle supports and drives the cylinder from one side. By “hub” I mean one of a pair of objects which engage a cylinder from each side. Thus hubs support and drive the cylinder from both sides. Again, it is common ground that this terminology is not universally accepted in the field.

16. A common way for a spindle to drive the cylinder is by means of ribs on the inside of the cylinder which engage with ribs on the outside of the spindle. A common way for hubs to drive the cylinder is by means of notches on the hubs which engage with slots in the ends of the cylinder.
17. Each of the three methods described in paragraph 14 above has advantages and disadvantages. Direct loading is the cheapest solution, but it is more troublesome and prone to error for the user. Thus there may be limited space and/or visibility inside the printer. A carrier has the advantage compared to direct loading that it is easier for the user because there is more space and visibility, but even so the user may incorrectly load the cylinders onto the carrier. A carrier is cheaper than a cartridge because it is reusable, but a cartridge is usually the easiest solution for the user.
18. When loading printer ribbons into a printer by direct loading or using a carrier, a known problem at the time of the Error Loading Patent was that users would sometimes install the ribbon incorrectly, or at least begin by doing so. Sometimes this would be obvious, for example, where the ribbon was twisted through 180° or 360°; but in other cases it might be less obvious, particularly to an unskilled user, for example where it was installed upside-down or back-to-front. The evidence is that this became more of an issue in the card printer field from about 2000 as card printers became cheaper and smaller, and hence more likely to be used by unskilled users.

Radio Frequency Identification (“RFID”) technology

19. RFID is one of a number of methods of identifying and tracking objects, particularly apparently identical objects created by mass production. Other methods include labels bearing code numbers and/or barcodes. These methods have disadvantages: they must be placed on the exterior of an object to allow a human being or laser scanner to read them and they cannot be readily changed, except by printing a new label and placing it over the original.
20. RFID relies on contactless electromagnetic communication between a “reader” and a “tag” affixed to each object to be tracked. The tag includes a chip which can store, among other things: an identifying code for the object, information pertaining to the object and the status of any sensors (e.g. temperature, shock, acceleration) attached to the tag. RFID does not have the disadvantages described above. The tag can be placed inside an object and does not need to be visible externally. Indeed, there are few limitations on where the tag can be placed. Furthermore, information can be written to the tag’s memory at any time, so that, for example, the history of the tagged object can be kept.
21. RFID technology has its origins in the 1960s and developed with improvements in integrated circuit (“IC”) technology. By December 2001 commercial implementations were widely available. International standards had been drafted, although proprietary solutions were also available. The technology was being used in a very wide variety of circumstances, including logistics, medical and pharmaceutical products, libraries and car immobilizers.
22. RFID systems generally operate in one of three radio frequency bands: 135 kHz (low frequency or LF), 13.56 MHz (high frequency or HF) or 2.45 GHz (ultra-high frequency or UHF).

23. The reader generates an electromagnetic field from which the tag draws power through its antenna. Tags do not generally carry a battery. The electromagnetic field is also used for communication between the two devices. The tag does not generate its own field, but instead disturbs the reader's field in a way that the reader can detect. The range, or greatest distance at which the reader can read from the tag, is determined by a number of factors, including: the power output of the reader and the design of the antennae of both the reader and the tag.
24. The basic components of the tag are an antenna, an IC with circuitry for sending and receiving signals and storing and retrieving data from memory and a body on which the other components are mounted.
25. By December 2001 RFID technology was well known in the printing industry, and was being used by an increasing number of companies to track supply materials such as ribbons and paper.

The expert witnesses

26. DataCard's expert witness was Gary Klinefelter. He has a Bachelor of Science in Electrical Engineering. From 1980 to 1991 he worked for Teleray designing computer terminals. From February 1991 to December 2008 he worked for Fargo Electronics Inc, a supplier of printers and a competitor to DataCard in the card printer market. He was employed there successively as Senior Engineer, Engineering Manager, Vice-President Technology and Vice-President Strategy and Innovation.
27. During the course of his employment by Fargo Electronics, Mr Klinefelter gained experience of most types of printers, including card printers. Since leaving Fargo Electronics, he has run his own consultancy. In December 2001 he had relatively little knowledge and experience of "RFID" technology, but he has gained more since then.
28. Mr Klinefelter is named as an inventor in over 35 US patents and equivalents in other countries. In particular, he is the one of inventors of Fargo Electronics' International Patent Application No. 00/43932 ("Fargo"), which is one of the items of prior art relied upon by Eagle against the RFID Patent. As a result, he had first-hand knowledge of the work by Fargo Electronics which led to the filing of Fargo. Through no fault of his own, he had understandable difficulty in putting himself into the position of a skilled reader of Fargo who did not have that knowledge. That apart, he was a good expert witness.
29. Eagle's expert witness was Dr Jürgen Schäfer. He obtained a masters degree in Physics from the University of Darmstadt in 1977 and a PhD in Solid State Physics from the University of Hannover in 1984. From 1978 to 1980 he was employed by Villeroy & Boch as a Development Engineer in technical ceramics. From 1980 to 1984 he was employed by Siemens as a Development Engineer in passive components and semiconductors. From 1984 to 1987 he was employed by Villeroy & Boch as Director of New Technologies. From 1987 to 1990 he was employed by Heraeus as head of its Temperature Sensor Division. From 1990 to 1996 he was employed by Siemens as Director of Sales and Marketing for integrated circuits for telecommunication applications. From 1997 to 2002 he was President and CEO of the Schleipen & Erkens group. Since 2007 he has run his own consultancy.

30. Dr Schäfer has not worked as a designer or developer of printers or printer consumables. He has had no involvement with card printers at all. He has had some limited involvement with printers, however, and in particular with RFID solutions for application in printer systems. One of the companies in the Schleipen & Erkens group for which he was responsible as CEO was X-Label which was active in the labelling field, supplying thermal transfer printers, ribbons and labels. In addition, he was responsible for another business call X-Ident, which was set up using assets acquired from Sihl in 1999. X-Ident supplied customised RFID solutions to a wide customer base, including customers in the printing and paper industries, and its work included providing RFID tags located on printer supply items. This business was sold in 2002.
31. Counsel for DataCard began his cross-examination of Dr Schäfer by seeking to establish that he had little, if any, knowledge or experience of printer design. Despite this, in his closing submissions counsel for DataCard relied strongly on answers given by Dr Schäfer as supporting DataCard's case on the validity of the Error Loading Patent. Counsel for Eagle was forced into the unusual position of having to submit that his own expert was not properly qualified to assist the court in relation to the Error Loading Patent, and that for that reason (among others) his answers did not assist DataCard. Counsel for DataCard submitted that Dr Schäfer had sufficient general experience as an engineer and knowledge of printers to give admissible expert evidence, and that he did not have to have had knowledge or experience of printer design for that purpose.
32. In *Mölnlycke AB v Procter & Gamble Ltd* [1994] RPC 49 at 113 Sir Donald Nicholls V-C (as he then was) giving the judgment of the Court of Appeal held that in assessing whether an invention is obvious "the primary evidence will be that of properly qualified expert witnesses". Nicholls VC did not elaborate in what he meant by "properly qualified". Generally speaking, however, a properly qualified expert is one who was in the relevant field at the relevant time.
33. In *Technip France SA's Patent* [2004] EWCA Civ 381, [2004] RPC 46 Jacob considered the role of expert witnesses in patent litigation at [11]-[15]. During the course of this passage he observed:
 - "11. ... sometimes the requirement that the skilled man be uninventive is used by counsel for a patentee in an attempt to downgrade or dismiss the evidence of an expert called to say that a patent is obvious—'my witness is more nerdlike than his' is the general theme. I do not find this a helpful approach. It is frequently invoked and Mr Waugh Q.C. invoked it in this case in an effort to downgrade Rockwater's expert evidence on obviousness given by Professor Witz. Mr Waugh said his witness, Mr Nash, was more appropriately qualified than Professor Witz, and that the latter, because he had patents in his name, 'was of an inventive turn of mind'.
 12. I must explain why I think the attempt to approximate real people to the notional man is not helpful. It is to do with the function of expert witnesses in patent actions. Their primary function is to educate the court in the technology—they come as teachers, as makers of the mantle for the court to don. For

that purpose it does not matter whether they do not approximate to the skilled man. What matters is how good they are at explaining things.

...

15. Because the expert's conclusion (*e.g.* obvious or not), as such, although admissible, is of little value it does not really matter what the actual attributes of the real expert witness are. What matters are the reasons for his or her opinion. And those reasons do not depend on how closely the expert approximates to the skilled man.”
34. It is clear that, in saying this, Jacob LJ was not saying that expert witnesses did not need to be properly qualified. On the contrary, he quoted at [13] the passage from *Mölnlycke* I have cited above. As can be seen from [11], what he was criticising was the propensity of counsel for making submissions as to the inventiveness or otherwise of expert witnesses.
35. Furthermore, he stated that what mattered were the experts’ reasons. This is a point he has emphasised in a number of other judgments. Thus in *SmithKline Beecham plc v Apotex Europe Ltd* [2004] EWCA Civ 1568, [2005] FSR 23 he quoted what he had said in *Technip* at [12] and stated:
 - “52. To that I would add this: although it is inevitable that when an expert is asked what he would understand from a prior document's teaching he will give an answer as an individual, that answer is not as such all that helpful. What matters is what the notional skilled man would understand from the document. So it is not so much the expert's personal view but his reasons for that view—these the court can examine against the standard of the notional unimaginative skilled man. ...
 53. Thus in weighing the views of rival experts as to what is taught or what is obvious from what is taught, a judge should be careful to distinguish his views on the experts as to whether they are good witnesses or good teachers—good at answering the questions asked and not others, not argumentative and so on, from the more fundamental reasons for their opinions. Ultimately it is the latter which matter—are they reasons which would be perceived by the skilled man?”
36. Given that what matters are the experts’ reasons and whether they would be perceived by the skilled person, it is relevant to consider to what extent the experts’ qualifications (as opposed to their degree of inventiveness) approximate to those of the skilled person. If one expert was in the field at the relevant time, and particularly if he considered the problem to which the patent is addressed at that time, then his or her evidence is likely to carry more weight than that of another expert who was not in the field at the relevant time, because the first expert is more likely to be able to speak to the perception of the skilled person. This does not mean that the first expert’s

opinion must necessarily be accepted by the court: the court must still consider the cogency of the expert's reasons.

37. In my judgment, Dr Schäfer was just sufficiently qualified as a result of his general engineering experience and general knowledge of printers to give admissible expert evidence in relation to the Error Loading Patent. Nevertheless, the cross-examination demonstrated that Dr Schäfer was much less well qualified to speak from the perspective of the addressee of the Error Loading Patent than Mr Klinefelter.
38. By contrast, I consider that Dr Schäfer was better qualified to assist the court in relation to the RFID Patent than Mr Klinefelter was, since he had more knowledge and experience of RFID at the relevant date, including the use of RFID in relation to printing, than Mr Klinefelter did.

THE RFID PATENT

39. DataCard contends that Eagle has infringed the RFID Patent by sales of various Plus-Ribbon products that are compatible with DataCard printers. Eagle denies that its products fall within the claims of the RFID Patent. In addition, Eagle attacks the validity of the RFID Patent on four grounds: (i) obviousness over Fargo; (ii) obviousness over US Patent No. 6,227,643 ("ENCAD"); (iii) insufficiency; and (iv) added matter. DataCard accepts that claims 1-10 are invalid in the light of Fargo, but as stated above it maintains that claim 11 is valid.

The Patent

40. The specification of the RFID Patent is entitled "Radio frequency identification tags on consumable items used in printers and related equipment". There is no challenge to the earliest claimed priority date of 21 December 2001.

41. Under the heading "Field of the Invention", the specification states at [0001]:

"The present disclosure relates to consumable items in printers and related equipment. More particularly, the present disclosure relates to a system for tagging consumable supply items that are used in equipment, such as printers, used to produce data bearing identity documents, including cards such as identification cards, drivers licenses, credit cards and the like, and booklet such as passports and the like, as well as to methods resulting from the use of tagged consumables."

It is clear from this paragraph that the invention is not restricted to the field of card printers, or even printers, nor is it restricted to ribbons for such printers, as opposed to other types of consumables. This is confirmed by two later passages at [0017] and [0019].

42. Under the heading "Field of the Invention", the specification states in [0001]:

"The use of radio frequency (RF) identification tags on consumer supply items of printers is known in the art."

The specification goes on to refer to three patents and an application, including Fargo and ENCAD, as examples.

43. The specification then states at [0003]:

“There is, however, a continuing need for improvements relating to the use of memory tags on consumable items that are used in the production of data bearing identity documents.”

Although the specification goes on to discuss four items of prior art, it does not identify any problems with the prior art. Nor does it identify the improvements that the invention is claimed to provide over the prior art.

44. Under the heading “Summary of the Invention”, the specification contains a brief consistory clause at [0008] referring to the claims. It then states in an unusual passage at [0009]:

“The claimed invention can be better understood in view of the embodiments described hereinafter. In general, the described embodiments describe preferred embodiments of the invention. The attentive reader will note, however, that some aspects of the described embodiments extend beyond the scope of the claims. To the extent that the described embodiments indeed extend beyond the scope of the claims, the described embodiments are to be considered supplementary background information and do not constitute definitions of the invention per se. This also holds for the subsequent ‘Brief Description of the Drawings’ as well as the ‘Detailed Description of the Invention.’”

It follows that the reader cannot assume that the claims are intended to cover everything that is disclosed in the specific embodiments.

45. The specification goes on at [0010]:

“The present disclosure provides improvements relating to the use of identification tags on consumer will supply items used in identity document production equipment. The use of identification tags on the consumer will supply items allows the document production equipment to recognise the consumable supply items that are loaded into each piece of equipment. The equipment can then indicate a variety of activities that are based on the loaded supply item. The activities are designed to enhance the operation of equipment for the equipment operator and to provide added value to those customers who utilise consumable supply items that are recognised by the equipment.”

Again, the specification does not identify the improvements the invention is said to provide. The second, third and fourth sentences of this paragraph simply describe the

advantages of using RFID tags on consumable items, advantages that were known from the prior art.

46. This section of the specification continues:

“[0011] In one aspect of the invention, a consumable supply item for a piece of data bearing document production equipment is provided. The supply item comprises a core, a ribbon material wound onto the core, and a memory element attached to the core.

[0012] In another aspect of the invention, a printer is provided which comprises a ribbon material supply roll disposed on a spindle, a read/write memory element fixed to the supply roll, and a read/write unit for reading data from and writing data to the read/write memory element.

...

[0014] In another aspect of the invention, the read/write memory element is fixed to the take-up core upon which used print ribbon is wound, instead of being fixed to the supply core. In this embodiment, it is also preferred that ribbon amount data stored in the memory element pertaining to how much ribbon remains on the supply roll, is decremented based on print jobs performed by the printer. Print job information is available from the printer controller which controls operation of the printer in which the take-up core is used”

47. Thus the RFID Patent expressly discloses two separate embodiments of the supply item. In the first, the RFID tag is attached to the supply roll. In the second, it is attached to the take-up roll.

48. Under the heading “Detailed Description of the Invention”, the specification describes the two embodiments mentioned above. The first is described at [0018]-[0026] by reference to Figures 1-3. I reproduce Figures 1 and 2 below:

FIG.1

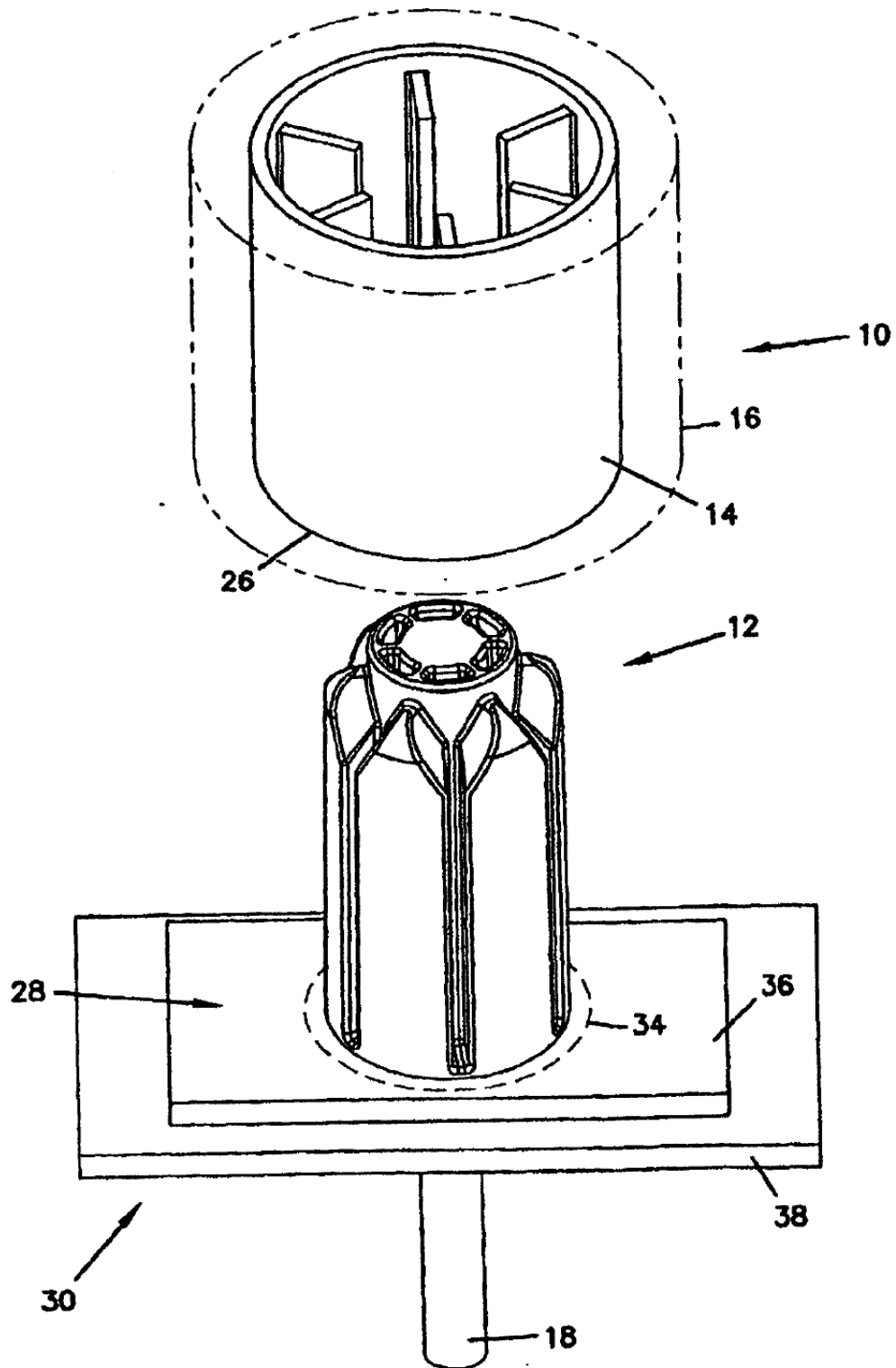
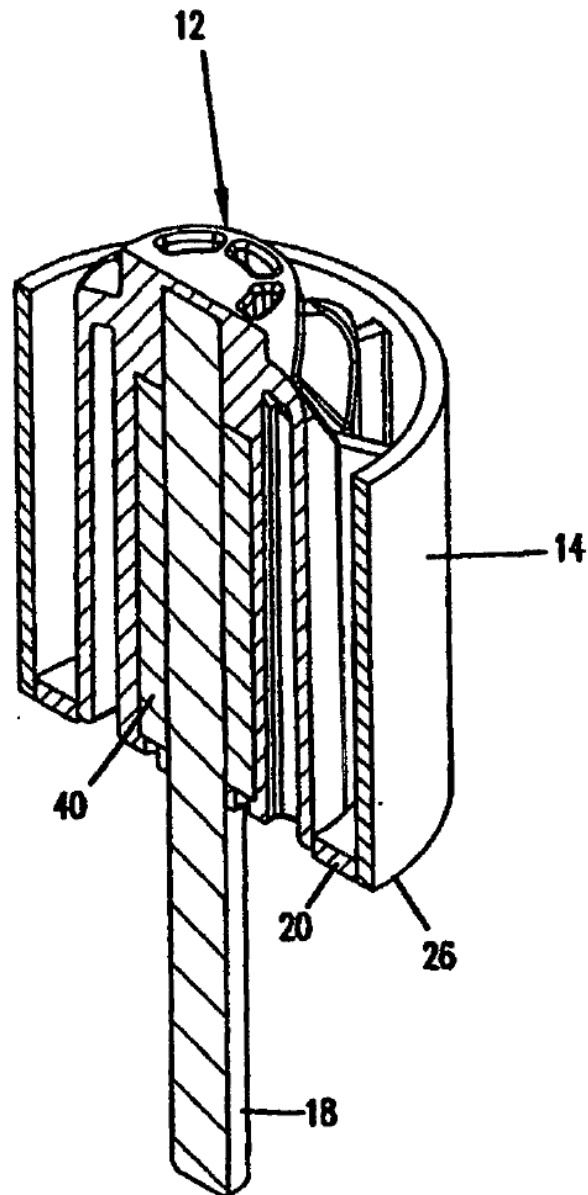


FIG.2



49. In this embodiment, the supply roll 10 has a core 14 with ribbon 16 wound onto it. The supply roll 10 is mounted on the spindle 12. The RFID tag 20 is attached to the end 26 of the supply core 14. The tag is generally circular and is designed to fit within a slight recess in the end 26. Thus the outer diameter of the tag is less than the interior diameter of the core and the inner diameter of the tag is greater than the outer diameter of the spindle. The tag is shown in Figure 3 as having a circular antenna 22 and read/write memory element 24. The read/write unit 28 surrounding the supply roll 10 includes an antenna 34 that is also generally circular.

50. In describing this embodiment, the specification states in [0021]:

“The use of radio frequency signals to read and write data, and to provide power to identification tags, is well known in the art such as from [Fargo] and US 6,099,178. As the use of radio frequency identification tags is known, a description of how data is read from and written to the tag, and how the tags are powered by the radio frequency signals, is not provided herein.”

51. The specification also states in [0023]:

“Other known components of the read/write unit 28 that cooperate with the antenna 34 for reading and writing data to detect 20 also housed within the plastic cover 36. ”

52. In [0025] the specification states:

“At present, RF identification tag technology is such that the tag 20 should be as close as possible to the read/write unit to provide optimal performance.”

53. At [0026]-[0034] the specification describes the data which can be stored in the memory element 24 of tag, and in particular an identification code 50 which is described by reference to Figure 4. Nothing turns on this part of the specification for present purposes.

54. At [0035]-[0038] the specification describes the operation of a printer with a supply roll fitted with tag 20. This section includes the following passage:

“[0035] In current printer ribbon rolls without an RF ID tag, in order to determine the type of printer ribbon on the roll, it is necessary for the operator to manually identify the ribbon type to the printer by entering the ribbon type using a printer user interface unit. This process is time-consuming and inconvenient for the operator. It also requires a printer operator with sufficient skill to enter the ribbon type. Alternatively, it is known to automatically identify a print ribbon by advancing the print ribbon a certain distance to enable the printer to determine the print ribbon type. Because the print ribbon is advanced for identification purposes, this process waste ribbon that could have been used for printing.

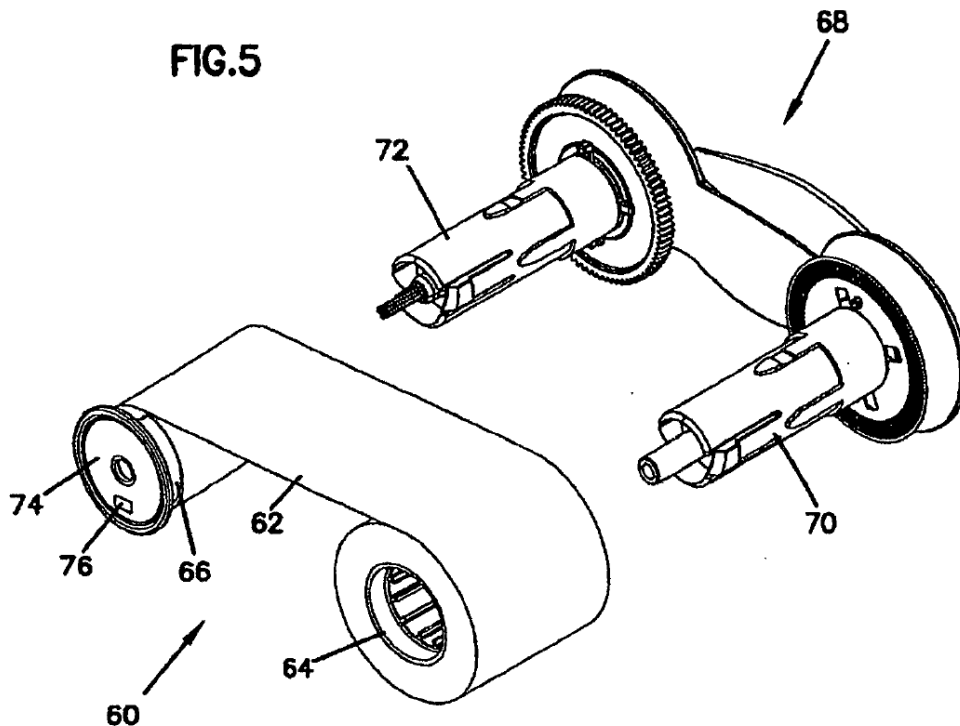
[0036] Because of the tag 20, the printer knows the type of ribbon on the roll by reading the code 50. Therefore, the printer can automatically optimize its operation based on the loaded ribbon type. Further, ribbon usage is reduced since the ribbon is not advanced for identification purposes. ...”

55. At [0039]-[0041], [0042]-[0045] and [0046]-[0047] the specification discusses data tracking and reporting, error proofing and inventory management respectively. Again, nothing turns on these sections for present purposes.

56. In [0048] the specification states:

“The tag has so far been described as being attached to a ribbon supply core. However, other tag locations are possible.”

57. The specification goes on at [0048]-[0049] and [0051]-[0055] to describe the second embodiment by reference to Figure 5, which I reproduce below:



58. In this embodiment, the RFID tag 76 is attached to a cap 74 attached to the end of the take-up core (also referred to in this passage as a cylinder) 66. The supply core (cylinder) 64 and the take-up core (cylinder) 66 are mounted on spindles 70 and 72 respectively of supply item 60 (wrongly labelled 68 in the figure). Nothing is said in the specification about the shape or positioning of tag 76. In the figure, however, it is depicted schematically as a rectangle positioned to the side of the hole in the cap. Nothing is said in the specification, or shown in the figure, about the shape of the antenna of the tag. As for the read/write unit, the specification simply states in [0049] that it “will be positioned adjacent the end of the take-up cylinder 66”.

59. At [0050] the specification describes by reference to Figure 6 the placement of the supply item 60 in the printer. Again, nothing turns on this for present purposes.

60. At [0056] the specification suggests some further alternative embodiments:

“In addition, the tag could be positioned to hang off the end of the supply or take-up cylinders and not rotate with the cylinder during use. In such an embodiment, the tag would be fixed in position relative to the cylinder during printer operation, such as by the tag cooperating with a slot in the printer upon inserting the carrier into the printer. The tag could also be separate from the supply and take-up cylinders, and instead be

placed by a user into the printer when the supply item is replaced.”

The claims

61. Broken down into integers, claim 1 of the RFID Patent is as follows:

“[1] A consumable supply item (10, 60) for data bearing document production equipment, comprising:

[2] a cylinder having first and second open ends and a spindle passageway extending along a rotation axis between the first and second open ends to enable the cylinder to be disposed on a rotatable spindle (12, 70, 72) of the production equipment;

[3] a supply material (16, 62) wound on the cylinder (14, 64); and

characterized by

[4] a radio frequency identification tag comprising

[5] a generally circular tag body (20,76) having an aperture formed therethrough that is configured to allow passage through the tag body (20, 76) of at least a portion of the spindle (12,70, 72) when the cylinder (14, 64) is disposed on the spindle (12, 70, 72),

[6] an antenna (22) formed on the tag body (20, 76), and

[7] a memory element (24) disposed on the tag body (20, 76),

[8] wherein said generally circular tag body is attached to the cylinder (14, 64).”

62. Claim 3 is as follows:

“The consumable supply item (10, 60) of claim 1, wherein the cylinder (14, 64) is a take-up cylinder that takes-up supply material (16, 62) that has been used by the used by the production equipment.”

63. Claim 11 is as follows:

“The consumable supply item (10, 60) of any one of the preceding claims wherein the antenna (22) is circular and surrounds the aperture.”

64. As discussed below, DataCard accepts that claims 1-10 of the RFID Patent are invalid. It maintains that claim 11 is valid. Accordingly, it proposes to amend the RFID Patent so as to incorporate the additional feature of claim 11 into claim 1. Eagle raises no objection to this proposed amendment, but contends that the proposed amended claim is invalid. Nevertheless, I shall continue to refer to the granted claims.

The skilled team

65. There is an important, although very narrow, issue between the parties as to the attributes of the team of skilled persons to whom the RFID Patent is addressed. For reasons that I will explain, I think that the issue is more one as to the common general knowledge of the skilled team than one as to the identity of the members of the team. It is nevertheless convenient to consider it at this stage.

The law

66. It is important for many purposes in patent litigation correctly to identify the “person skilled in the art” to whom the patent is addressed. Thus the claims have to be interpreted, and the issues of obviousness and insufficiency have to be considered, from the standpoint of the person skilled in the art.
67. It is trite law that a patent is addressed to those likely to have a practical interest in the subject matter of the invention, and such persons are those with practical knowledge and experience of the kind of work in which the invention is intended to be used. The addressee comes to a reading of the specification with the common general knowledge of persons skilled in the relevant art, and he or she reads it knowing that its purpose is to describe and demarcate an invention. He or she is unimaginative and has no inventive capacity. In some cases the patent is addressed to a team of persons with different skills.
68. A question which has arisen in a number of cases is whether the addressee is the same, and has the same common general knowledge, when considering both obviousness and insufficiency. This question was recently considered in detail by Jacob LJ, with whom Sullivan and Waller LJJs agreed, in *Schlumberger Holdings Ltd v Electromagnetic Geoservices AS* [2010] EWCA Civ 819, [2010] RPC 33 at [30]-[70]. His conclusion was that, although the person skilled in the art was usually the same in both cases, this was not necessarily the case:
- “62. Mr Silverleaf says it cannot be that the same phrase when used in the EPC can have different meanings. It uses the same words in three places – by all known canons of construction they must have the same meaning in all three places.
63. I think the flaw in that is to assume that ‘the art’ is necessarily the same both before and after the invention is made. The assumption may be correct in most cases, but some inventions are themselves art changing. If a patentee says ‘marry the skills of two different arts to solve a problem,’ marrying may be obvious or it may not. If it is not, and doing so results in a real technical advance then the patentee deserves and ought to have, a patent. His vision is out of the ordinary.
64. This is not because a different construction is being given to the phrase ‘person skilled in the art’ in the different Articles. It is because the phrase is being applied to different situations. Where the issue is claim construction or sufficiency one is considering a post-patent situation where the person skilled in

the art has the patent in hand to tell him how to perform the invention and what the monopoly claimed is. But ex-hypothesi the person skilled in the art does not have the patent when considering obviousness and ‘the art’ may be different if the invention of the patent itself is art changing.

65. In the case of obviousness in view of the state of the art, a key question is generally ‘what problem was the patentee trying to solve?’ That leads one in turn to consider the art in which the problem in fact lay. It is the notional team in that art which is the relevant team making up the person skilled in the art. If it would be obvious to that team to bring in different expertise, then the invention will nonetheless be obvious. Likewise if the possessor of the ‘extra expertise’ would himself know of the other team's problem. But if it would not be obvious to either of the notional persons or teams alone and not obvious to either sort of team to bring in the other, then the invention cannot fairly be said to be obvious. As it was put in argument before us the possessors of the different skills need to be in the same room and the team with the problem must have some reason for telling the team who could solve it what the problem is.”

The skilled team to whom the RFID Patent is addressed

69. It is common ground that the RFID Patent is addressed to a team of mechanical and electrical engineers with experience in printer design, particularly card printers. In particular, the team would include someone with at least a bachelor’s degree in electrical engineering. DataCard accepts that the team would have some general knowledge of the basics of RFID technology, but contends that it would not include a specialist in RFID tag design. Eagle does not go so far as to say that it would include a specialist in RFID tag design, but says that it would include someone with a reasonable level of knowledge of RFID technology. The difference between the two is really as to the level of knowledge of RFID technology that the skilled team would possess, and in particular the extent to which the skilled team would have the ability to design an RFID tag at least in outline. This is already quite a narrow difference, but it becomes even narrower when it is appreciated that DataCard accepts that the skilled team would have access to a manufacturer of RFID technology with the expertise to design and manufacture RFID tags for custom applications.
70. The starting point in my view is that this is not a case in which it can be suggested that the invention lies in marrying the skills of two different arts. On the contrary, as the specification of the RFID Patent rightly acknowledges, printers and RFID technology had already been married by the prior art, including Fargo and ENCAD. As I have recorded above, by December 2001 RFID technology was being increasingly widely used in the printing industry. The invention purports to provide an improvement in the use of RFID technology in relation to printers, albeit that it does not specify what that improvement is.
71. The next point is that the specification explicitly proceeds on the basis that RFID is sufficiently well understood by those to whom the RFID Patent is addressed that it is not necessary to set out the details, in particular at [0021].

72. As Dr Schäfer explained, in order to implement RFID in a printer at all, the skilled person needs a reasonable level of expertise in RFID, for example so as to be able to tune the antenna correctly to cope with the environment of the printer. It follows that, simply to implement the prior art such as Fargo or ENCAD, the skilled team would have to include someone with sufficient expertise in RFID.
73. Furthermore, the RFID Patent does not identify a suitable type of RFID tag to use in either embodiment or even suggest that one is available off the shelf. Nor does it describe how to design and manufacture a suitable tag. Indeed, it describes the tags very sketchily, particularly in the case of the second embodiment. It follows that the RFID Patent assumes that the skilled team either has the necessary expertise itself to design and manufacture a tag, or can access the necessary expertise from an RFID tag manufacturer. Consistently with this, DataCard's answer to Eagle's insufficiency case (as to which, see below) is that the skilled team could get the RFID tag designed and manufactured by the supplier to which it has access as described above.
74. DataCard's case as to the attributes of the skilled team was primarily based on Mr Klinefelter's evidence as to the attributes of Fargo Electronics' design team. It became clear during cross-examination, however, that this evidence was strongly influenced by Mr Klinefelter's experience with the project which resulted in the Fargo application. That application has a priority date of 25 January 1999, however, nearly three years before the priority date of the RFID Patent. The application of RFID technology was developing rapidly during that period. Furthermore, Mr Klinefelter accepted the points I have set out in the two preceding paragraphs. He also accepted that a team which was embarking on a project to design a printer equipped with RFID tags would educate themselves about the topic if they did not already know about it.
75. In my judgment it follows that the skilled team would either include someone with a reasonable degree of expertise in RFID technology or would have access to a supplier with a sufficient degree of expertise. Even if the skilled team did not include or already have access to such a person, it would be obvious for the skilled team to include such a person or approach such a supplier when embarking on project to design a printer incorporating RFID technology or at the very least for the skilled team to acquire the relevant knowledge by self-education.

Common general knowledge

76. I set out the law as to the common general knowledge in *KCI Licensing Inc v Smith & Nephew plc* [2010] EWHC (Pat) at [105]-[112]. That statement of the law was approved by the Court of Appeal [2010] EWCA Civ 1260 at [6], in particular what I said at [112]:

“It follows that, even if information is neither disclosed by a specific item of prior nor common general knowledge, it may nevertheless be taken into account as part of a case of obviousness if it is proved that the skilled person faced with the problem to which the patent is addressed would acquire that information as a matter of routine. For example, if the problem is how to formulate a particular pharmaceutical substance for administration to patients, then it may be shown that the skilled formulator would as a matter of routine start by ascertaining

certain physical and chemical properties of that substance (e.g. its aqueous solubility) from the literature or by routine testing. If so, it is legitimate to take that information into account when assessing the obviousness of a particular formulation. But that is because it is obvious for the skilled person to obtain the information, not because it is common general knowledge.”

77. For the reasons explained above, I conclude that it would be obvious for the skilled team to acquire knowledge about RFID if it did not already include a person with sufficient expertise or have access to a supplier.
78. On the evidence, I find that the skilled team would know as part of its common general knowledge, or at least acquire via its supplier or obtain for the purposes of the project, the information summarised in paragraphs 18-24 above and the following information:
- i) LF and HF tags were widely commercially available. UHF tags were known, but not so available.
 - ii) HF tags had the advantage as compared to LF tags of being less “directional”, meaning they did not have to be kept perfectly aligned to the reader in order to function properly.
 - iii) LF tags came in sizes of the order of a fraction of an inch, whereas HF tags were larger and of the order of one to two inches. The reason for this difference in size was that HF tags had a larger antenna than LF tags.
 - iv) LF tags usually had a short read range, while the read range of HF tags was typically in the region of at least 4-10 inches.
 - v) The tag antenna could be of any shape (square, circular, triangular etc.) provided it formed a closed loop. It was known that the shape of the antenna (as opposed to the area it enclosed) made no difference to its performance.
 - vi) The size of an antenna affected its performance, in that its range could be increased by increasing the area enclosed by antenna.
79. A particular area of dispute concerns the extent to which RFID tags with circular antennae, and in particular circular antennae with central apertures, were common general knowledge in December 2001. Dr Schäfer exhibited to his second report illustrations of a number of examples of such tags. DataCard makes the point that none of Dr Schäfer’s examples had been used in the printing industry. That is a fair point so far as it goes, but they had been used in a range of industries including, for example, labelling CDs in public libraries. Furthermore, such tags would have been suitable for use in the printing industry. DataCard also makes the point that it has not been shown that such tags were available as standard products from the two largest suppliers of RFID tags, Phillips and Texas Instruments. In my judgment, this is immaterial. The evidence clearly establishes that such tags were readily available from a variety of smaller suppliers. Dr Schäfer’s evidence, which I accept, was that such tags were a standard type of product, albeit for custom applications rather than high volume products. It was also his opinion that the existence of such tags was

something that the skilled team would have known about. In my judgment, the skilled team (or their supplier) would have at least have known, or found out, that tags with circular antennae and central apertures could be made to order.

Construction

80. The task for the court when construing a patent claim is to determine what the person skilled in the art would have understood the patentee to have been using the language of the claim to mean: see *Kirin Amgen Inc v Hoechst Marion Roussel Ltd* [2004] UKHL 46, [2005] RPC 9 at [30]-[35]. In that case the list of principles to be found in the judgment of Jacob LJ in *Technip* at [41] was approved subject to one point. More recently, in *Virgin Atlantic Airways Ltd v Premium Aircraft Interiors UK Ltd* [2009] EWCA Civ 1062, [2010] RPC 8 the Court of Appeal held that the skilled reader is to be taken to know the purpose of (i) including reference numerals in patent claims, (ii) dividing claims into pre-characterising and characterising portions and (iii) filing of divisional applications, and to bring that knowledge to bear when he considers the scope of the claim.

81. There are three short issues of construction of claim 1, all of which are relevant only to the question of infringement.

[1] A consumable supply item for data bearing document production equipment

82. Counsel for Eagle submitted this integer meant a consumable supply item that was suitable for use in data bearing document equipment. Accordingly, he submitted that it did not cover a used supply item. He accepted, however, that it would cover a partially used supply item. It is therefore not necessary for me to decide whether it covers a wholly used supply item.

[3] A supply material (10, 62) wound onto the cylinder

83. Counsel for Eagle submitted that it was clear from this integer that “the cylinder” was the supply cylinder, since the take-up cylinder did not have the supply material wound onto it. In support of this submission, he argued that it was clear from the wording of the claim that DataCard had chosen to limit the claims to the first embodiment described in the specification, in which the tag is positioned on the supply cylinder. He also argued that the description of the second embodiment would not lead the skilled team to think differently having regard to what the specification said at [0009].

84. I do not accept this argument for a number of reasons. First, the argument places more weight on the words “wound onto” than they can properly bear. In context, I consider that they mean no more than “attached to”. The supply material is simply the print ribbon, which is the expression used for items 16 and 62 in the specification. It remains a print ribbon or supply material after it has been used. This is confirmed by the fact that claim 3 refers to “supply material ... that had been used”. It follows that this integer can read onto the take-up cylinder.

85. Secondly, even if the skilled team read “wound onto” as meaning more than “attached to”, this integer would still read onto the take-up cylinder of a supply item which had been partially used so that a certain amount of the supply item was wound onto the take-up cylinder.

86. Thirdly, there is no technical or other reason why the skilled readers would think that the patentee intended to exclude embodiments in which the relevant cylinder was the take-up cylinder. On the contrary, claim 3 is specifically directed to such embodiments. Claim 3 is dependent on claim 1, which implies that claim 1 covers them as well. Counsel for Eagle suggested that claim 3 was inconsistent with claim 1, but in my judgment there is no inconsistency.

[8] *Said generally circular tag body is attached to the cylinder*

87. Counsel for Eagle submitted that “the cylinder” was the same cylinder as referred to earlier in the claim, and therefore the claim excluded embodiments in which the tag is attached to the take-up cylinder. Counsel for DataCard did not take issue with the premise, but contested the conclusion. In my judgment the conclusion does not follow from the premise for the reasons given above: integer [3] reads onto the take-up cylinder.

88. Counsel for Eagle also submitted that this integer required that the tag be attached directly to the cylinder. Counsel for DataCard disputed this. In my judgment this integer covers embodiments in which the tag is indirectly attached to the cylinder, and in particular in which the tag is attached to a cap which is attached to the cylinder. Figure 5 of the RFID Patent shows the tag attached to the cap at the end of the cylinder. This is clearly regarded as part of the cylinder. There is no technical or other reason why the skilled readers would think that the patentee intended to exclude such an arrangement.

Infringement

89. Eagle’s Plus-Ribbon products complained of consist of a supply cylinder with printing ribbon wound on it and a take-up cylinder. The ribbon is attached to the take-up cylinder by means of a sticker. There is a plastic cap attached to the take-up cylinder. Stuck onto the cap is an RFID tag. The memory and antenna are mounted onto a ring of white card which is glued to the end of the cap on the take-up cylinder.

90. As I have construed claim 1, the products fall within in it. It is common ground that they also have the additional features of claim 11. Accordingly, Eagle has committed acts which would infringe the RFID Patent, if valid, pursuant to section 60(1) of the Patents Act 1977. It is therefore not necessary to consider DataCard’s alternative case under section 60(2).

Obviousness

91. A patent will be invalid for lack of inventive step if the invention claimed in it was obvious to a person skilled in the art having regard to the state of the art at the priority date. The familiar structured approach to the assessment of allegations of obviousness first articulated by the Court of Appeal in *Windsurfing International Inc v Tabur Marine (Great Britain) Ltd* [1985] RPC 59 was re-stated by Jacob LJ in *Pozzoli v BDMO SA* [2007] EWCA Civ 588, [2007] FSR 37 at [23] as follows:

“(1)(a) Identify the notional ‘person skilled in the art’;

- (b) Identify the relevant common general knowledge of that person;
- (2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;
- (3) Identify what, if any, differences exist between the matter cited as forming part of the ‘state of the art’ and the inventive concept of the claim or the claim as construed;
- (4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?”

92. In both *H. Lundbeck A/S v Generics (UK) Ltd* [2008] EWCA Civ 311, [2008] RPC 19 at [24] and *Conor Medsystems Inc v Angiotech Pharmaceuticals Inc* [2008] UKHL 49, [2008] RPC 28 at [42] Lord Hoffmann approved without qualification the following statement of principle by Kitchin J at first instance in the former case:

“The question of obviousness must be considered on the facts of each case. The court must consider the weight to be attached to any particular factor in the light of all the relevant circumstances. These may include such matters as the motive to find a solution to the problem the patent addresses, the number and extent of the possible avenues of research, the effort involved in pursuing them and the expectation of success.”

93. Counsel reminded me of a number of points concerning the law of obviousness. Although these are mainly relevant to Eagle’s case on the Error Loading Patent, it is convenient to set them out here.

94. The first concerns the relevance of motive. The law on this point was summarised by Floyd J in *Research In Motion UK Ltd v Visto Corp* [2008] EWHC 3325 (Pat) at [73]:

“A question which often arises, and arises here, is whether the absence of a particular motive to take a particular step between the prior art and the invention is fatal to an obviousness attack. It must now be regarded as settled law that it is not. In *Pharmacia v Merck* [2001] EWCA Civ 1610; [2002] RPC 41, Aldous LJ cited with approval a passage in Laddie J’s judgment in *Hoechst Celanese v BP Chemicals* [1997] FSR 547 at 573. The court will readily assume that technicians and businessmen will wish to make trivial changes to what is known in order to produce essentially the same result. That is not to say motive is irrelevant: it is one of the many factors that has to be balanced in answering the statutory question. It is easier to show a step is obvious if there is a strong motivation to take it. If the advance is not as trivial as the *Pharmacia* and *Hoechst* cases require, the

absence of motivation is a factor of which account must be taken in the balancing exercise.”

95. As he pointed out at [114], “if one has already decided to do something in a particular way, it will be seldom to be a logical step to retrace one's steps and do it in another way, particularly if that alternative way provides no advantage”, but this does not prevent the alternative way from being technically obvious:

“To use the familiar example: if a piece of wood is satisfactorily screwed to another, there is no reason to take it apart and glue it instead; but it is certainly not inventive to do so. And it does not make it inventive if you say that doing so avoids the technical problem of how to fix together two pieces of wood without using screws.”

96. Secondly, the inventive concept of a patent must apply to all embodiments falling within the relevant claim. It is not legitimate to define the inventive concept as something narrower than the scope of the relevant claims. In particular, it is not legitimate to identify a narrow sub-group of embodiments falling within the claims and which have certain technical advantages and then to define the inventive concept in terms which apply to the sub-group but not the rest of the claim. If a patentee chooses to advance broad claims, the inventive concept will be broadened in an equivalent way: see *Brugger v Medic-Aid Ltd* [1996] RPC 635 at 656-657.
97. Thirdly, if a particular route is an obvious one to take, it is not rendered any less obvious from a technical point of view merely because there are a number, and perhaps a large number, of other obvious routes to take: see *Brugger* at 661.
98. Fourthly, it is important to avoid hindsight when considering obviousness. The fact that it is possible after the event to postulate a series of logical steps by which the skilled team can arrive at the invention from the prior art does not necessarily mean it was obvious at the time: *Technograph Printed Circuits Ltd v Mills & Rockley (Electronics) Ltd* [1972] RPC 292.
99. Fifthly, simplicity of an invention is not the same as obviousness. The problem for the court in dealing with a simple invention is that, by definition it is extremely easy to understand once one knows it. In other words, one has to be particularly on guard against hindsight with a simple invention: see *Haberman v Jackel International Ltd* [1999] FSR 683 at [29].

Obviousness over Fargo

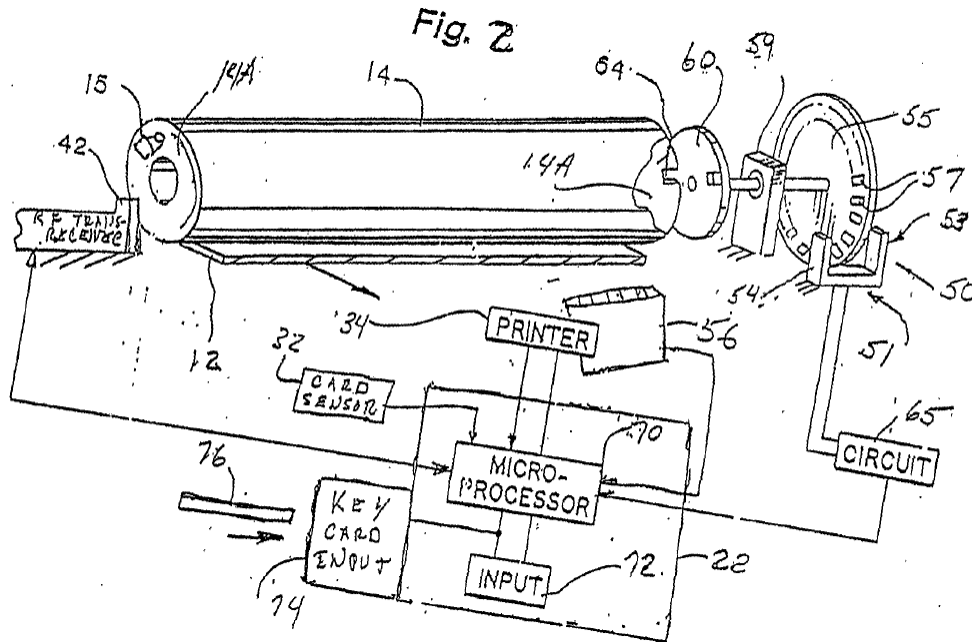
Fargo

100. Fargo was published on 27 July 2000. As mentioned, it claims priority from 25 January 1999 and Mr Klinefelter is named as one of the inventors. The disclosure is accurately and succinctly summarised in the abstract as follows:

“A printer (120) for printing onto a substrate (180) includes a substrate feed mechanism (186) configured to secure the substrate (180) during printing and a print mechanism (124)

configured to print on the substrate (180). A transceiver (140) is configured to transfer power through a non-physical link to a radio frequency (RF) circuit (142) carried on a printer supply (144) to thereby power the RF circuit (142). The transceiver (140) also responsively receives printer supply data through a non-physical link from the RF circuit (142).”

101. The system is most clearly illustrated in Figure 2, which I reproduce below:



102. This figure shows a print ribbon supply roll 14. Attached to one end 14A of the cylinder is an RFID tag 15. This communicates with a reader 42 in the printer to pass information such as ribbon usage. The tag is depicted schematically as having a circular antenna and a square chip (this can be seen more clearly from Figure 3). Fargo states at page 4 lines 4-10:

“The antenna 42 is positioned closely adjacent to the core 14A of the ribbon supply roll 14, so that it can transmit to and receive from ID tag 15 low power Radio Frequency (RF) signals. However, with more powerful signals or more sensitive electronics, the spacing can be any suitable distance.”

Later it states at page 10 lines 16-21:

“The RFID tag 142 can be any such RFID tag such as those which can be purchased commercially. One type of RFID tag is available from TEMIC semiconductors a division of ATMEL located in San Jose, California. For example, the TEMIC Model No. TK5550 is one such RFID tag.”

Obviousness of claim 11

103. *Step 1.* I have identified the skilled team and their common general knowledge above.

104. *Step 2.* I have construed claim 1 above. There is no issue as to the construction of claim 11.
105. *Step 3.* It is common ground that Fargo discloses all the features of claim 1, but not that of claim 11. Accordingly, the difference is that, although Fargo discloses an RFID tag with a circular antenna attached to the end of a supply cylinder, it does not disclose that the antenna surrounds the aperture of the cylinder.
106. *Step 4.* It is convenient to begin with two general points. First, as I have already pointed out, the specification of the RFID Patent does not identify the improvements over the prior art which the invention is claimed to provide. Still less does it identify the advantages of having a circular antenna which surrounds the aperture of the cylinder in accordance with claim 11. On the contrary, the specification suggests that the precise shape and position of the antenna is immaterial. At [0036] and [0056] the specification states that the tag may be located in different positions. As I have noted above, the tag depicted in Figure 5 is a rectangular tag positioned on one side of the aperture of the cylinder. (Indeed, as I shall discuss below, the application for the RFID Patent did not even include a claim to a circular antenna surrounding the aperture.)
107. Secondly, counsel for DataCard submitted that the advantage described in [0036] (quoted in paragraph 54 above) was attributable to the feature of claim 11. He argued that, since positioning a circular antenna around the aperture means that the tag antenna is equidistant from the reader regardless of the rotational position of the cylinder, it avoids the need for the ribbon to be advanced for identification purposes. There are two problems with this argument, however. The first is that the specification at [0036] attributes this advantage simply to the presence of the tag, and not to the shape and position of its antenna. The second is that whether the advantage is obtained does not depend simply on whether the tag antenna is circular and surrounds the aperture. It will not necessarily be obtained if the antenna is positioned eccentrically with respect to the aperture. Conversely, one could obtain the advantage without having a tag antenna that is circular and surrounds the aperture. For example, one could achieve it using a rectangular tag positioned to the side of the aperture as shown in Figure 5 provided that the reader was aligned with the aperture. Indeed, provided that the tag had an adequate read range, it would not even be necessary to align the reader in that way. Thus having a circular antenna surrounding the aperture is neither necessary nor sufficient to obtain this advantage.
108. Eagle puts its case on obviousness in two ways. The starting point for the first way is that, as was common ground between the experts, at the priority date of the RFID Patent the skilled team would consider an HF RFID tag to be the most suitable type for use in a printer. Although the specific tag disclosed in Fargo is an LF tag, Fargo explicitly states that it is only an example and that a more powerful one may be used. Thus it would be obvious to use an HF tag instead. As discussed above, HF tags were larger than LF tags. Their size was comparable to that of the end of a typical card printer cylinder. Accordingly, it would be obvious to position the antenna so that it ran around the outside of the flange at the left-hand end of the cylinder shown in Figure 2 of Fargo in order to accommodate it within the space available.
109. The second way Eagle puts its case is to suppose that the skilled team tried to use the TK5550 tag disclosed in Fargo. This was a very short range LF tag designed for use

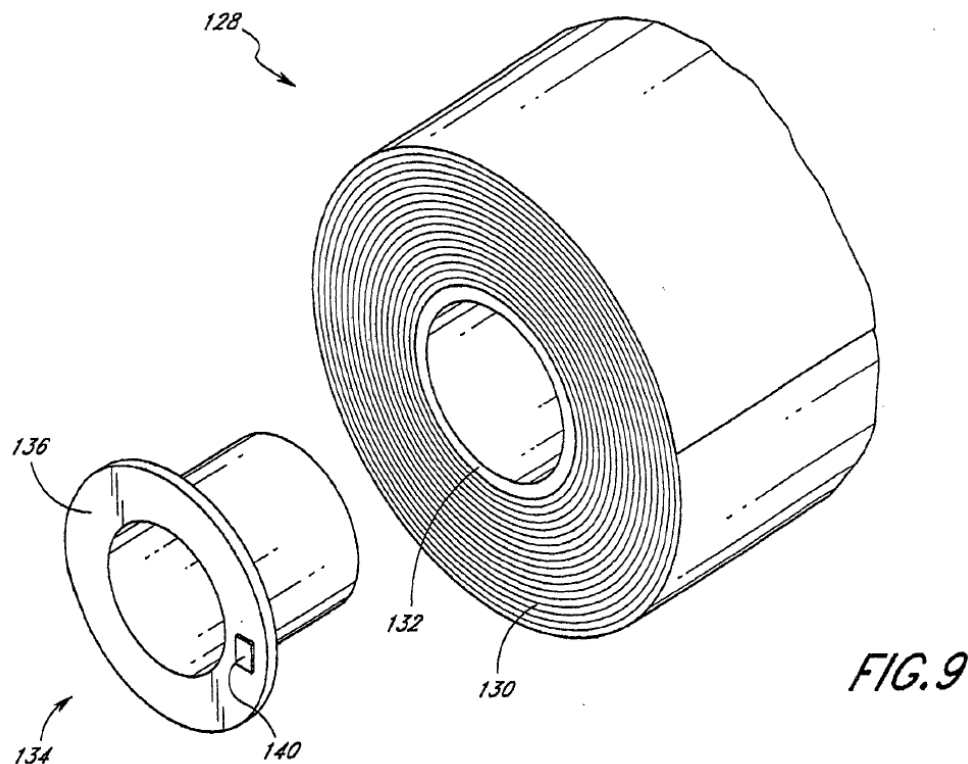
with a car immobiliser in a car key. The skilled team would discover the communication problem with the reader when the cylinder rotated. It would then be obvious to solve this problem in one of two ways. First, by using an HF tag, in which case it would be obvious to have a circular antenna round the aperture for the same reasons as given above. Secondly, by using a larger antenna. The obvious way in which to maximise the size of the antenna would be to run it round the outside of the end of the cylinder.

110. DataCard has three main answers to this case. First, DataCard argues that the skilled team would not have any expertise in designing RFID tags. Accordingly, it would simply use an off-the-shelf HF tag available from one of the main suppliers, such as Phillips or Texas Instruments. As discussed above, tags with circular antennas surrounding an aperture were not available as off-the-shelf products from those sources. Although DataCard accepts that the skilled team would have access to a manufacturer with the expertise to design and manufacture such a tag, DataCard argues that the skilled team would not think it worth having a custom-made tag unless it appreciated the advantage in terms of avoiding ribbon wastage that would be gained from having a circular antenna surrounding the aperture. DataCard argues that that would require invention.
111. Secondly, DataCard relies on the fact that Mr Klinefelter's team at Fargo Electronics did not come up with the idea of a circular antenna surrounding the aperture.
112. Thirdly, DataCard argues that the obvious way in which to accommodate a large HF tag was to place the tag around the circumference of the body of the cylinder. This is the arrangement disclosed in an item of prior art which Eagle relied on until the first day of trial, but then abandoned, namely Japanese Unexamined Patent Application No. 2000-281268 ("Sato"). It is also the solution adopted by Dr Schäfer's company.
113. In my judgment, claim 11 of the RFID Patent is obvious for the reasons given by Eagle in the first way that it puts its case. It is therefore unnecessary to consider the second way. I am not persuaded to the contrary by any of DataCard's arguments.
114. So far as DataCard's first point is concerned, I have already held that the skilled team would have sufficient expertise to design an RFID tag at least in outline. In my judgment it would have enough expertise to specify that the tag should have a circular antenna surrounding the aperture. But it would not matter if it did not, for two reasons. First, as I have already pointed out, Fargo itself discloses that the antenna is circular. As discussed above, tags with circular antennas were readily available from a variety of suppliers for custom applications. The only step which needs to be taken is to position such an antenna round the aperture. This would be an obvious choice even if the skilled team had minimal expertise in RFID technology. This is illustrated by one of the examples given by Dr Schäfer referred to in paragraph 79 above, namely the tag for use on CDs. This has a circular antenna surrounding the hole.
115. Secondly, even if the skilled team did not have the necessary expertise itself, it would have access to a supplier which did have the necessary expertise. As Mr Klinefelter accepted, if the skilled team requested their supplier to fit an HF tag to the end of the cylinder, the supplier would be likely to suggest matching the shape of the tag to the object to be fitted and accommodating the required size of tag by fitting round the outside.

116. Either way, the skilled team would not need to appreciate the potential advantage in terms of avoiding ribbon wastage to be gained from using a circular antenna positioned round the hole. But in any event, this part of DataCard's argument is illegitimate for the reasons explained in paragraphs 96 and 107 above.
117. As to DataCard's second point, Mr Klinefelter explained that the reason why Fargo Electronics had used the TK5550 tag was that a member of his team had used that tag before. Because he was familiar with it, he wanted to use it again. The skilled team reading Fargo would not be subject to that constraint. Moreover, as I have already pointed out, the priority date of the RFID Patent is nearly three after that of Fargo, and RFID technology had moved on during the interim.
118. As for the third point, Dr Schäfer accepted that putting the tag on the body of the cylinder was one obvious solution, but maintained that putting it round the aperture on the end of the cylinder was also obvious. I agree. As noted in paragraph 94 above, the fact that there is one obvious solution to a problem does not prevent another solution from being obvious as well.

Obviousness over ENCAD

119. ENCAD was published on 8 May 2001. It is another patent that discloses the use of RFID tags on printer consumables in order that the consumable can communicate data to the printer identifying itself and reporting other relevant information. Although most of ENCAD relates to the use of RFID tags on inkjet cartridges, it also refers to adding a RFID tag to print media (i.e. paper or labels) supplied on rolls. In particular, ENCAD describes by reference to Figure 9 using a RFID tag mounted onto an insert that fits into one end of a supply roll. I reproduce Figure 9 below:



120. In my judgment claim 11 of the RFID Patent is obvious over ENCAD for essentially the same reasons as it is obvious over Fargo. No point is served by repeating them. In my view ENCAD adds nothing to Eagle's case.

Insufficiency

121. Eagle relies on insufficiency purely as a squeeze on obviousness. In short, Eagle says that, if the skilled team does not have, or have access to, the necessary expertise to design an RFID tag with a circular antenna surrounding an aperture, then the RFID Patent is insufficient because it does not instruct the skilled team how to do so. As noted above, DataCard's answer to this is that the skilled team could take the RFID Patent to an RFID tag manufacturer and get a suitable tag made for it. But as discussed above, this implies that the skilled team at least has access to a supplier with the necessary expertise. On that basis, I have concluded that claim 11 is obvious. That being so, the RFID Patent is not insufficient. If it were not obvious, I would hold that it was insufficient.

Added matter

The law

122. The test for added matter was stated by Aldous J in *Bonzel v Intervention Ltd (No 3)* [1991] RPC 553 at 574 as follows:

“The decision as to whether there was an extension of disclosure must be made on a comparison of the two documents read through the eyes of a skilled addressee. The task of the Court is threefold:

- (1) To ascertain through the eyes of the skilled addressee what is disclosed, both explicitly and implicitly in the application.
- (2) To do the same in respect of the patent [as proposed to be amended].
- (3) 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.”

123. More recently, Jacob LJ stated the law in *Vector Corp v Glatt Air Techniques Ltd* [2007] EWCA Civ 805, [2008] RPC 10 (and reiterated it when giving the judgment of the Court of Appeal in *Napp Pharmaceutical Holdings Ltd v Ratiopharm GmbH* [2009] EWCA Civ 252, [2009] RPC 18 at [71]), as follows:

- “4. In *Richardson-Vicks' Patent* [1995] RPC 568 at 576 I summarised the rule in a single sentence:

‘I think 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.’

I went on to quote Aldous J in *Bonzel*. His formulation is helpful and has stood the test of time.

5. The reason for the rule was explained by the Enlarged Board of Appeal of the EPO in *G1/93 ADVANCED SEMICONDUCTOR PRODUCTS/Limiting feature* [1995] EPOR 97 at [Reasons 9]:

‘With regard to Article 123(2) EPC, the underlying idea is clearly that an applicant shall not be allowed to improve his position by adding subject-matter not disclosed in the application as filed, which would give him an unwarranted advantage and could be damaging to the legal security of third parties relying upon the content of the original application.’

6. Mr Richard Arnold QC provided a clear articulation as to how the legal security of third parties would be affected if this were not the rule:

‘The applicant or patentee could gain an unwarranted advantage in two ways if subject-matter could be added: first, he could circumvent the "first-to-file" rule, namely that the first person to apply to patent an invention is entitled to the resulting patent; and secondly, he could gain a different monopoly to that which the originally filed subject-matter justified.’

7. Kitchin J has recently helpfully elaborated upon the *Bonzel* formulation in *European Central Bank v Document Security Systems* [2007] EWHC 600 (Pat), 26th March 2007:

[97] A number of points emerge from this formulation which have a particular bearing on the present case and merit a little elaboration. First, it requires the court to construe both the original application and specification to determine what they disclose. For this purpose the claims form part of the disclosure (s.130(3) of the Act), though clearly not everything which falls within the scope of the claims is necessarily disclosed.

[98] Second, it is the court which must carry out the exercise and it must do so through the eyes of the skilled addressee. Such a person will approach the documents with the benefit of the common general knowledge.

[99] Third, the two disclosures must be compared to see whether any subject matter relevant to the invention has been added. This comparison is a strict one. Subject matter will be added

unless it is clearly and unambiguously disclosed in the application as filed.

- [100] Fourth, it is appropriate to consider what has been disclosed both expressly and implicitly. Thus the addition of a reference to that which the skilled person would take for granted does not matter: *DSM NV's Patent* [2001] RPC 25 at [195]-[202]. On the other hand, it is to be emphasised that this is not an obviousness test. A patentee is not permitted to add matter by amendment which would have been obvious to the skilled person from the application.
- [101] Fifth, the issue is whether subject matter relevant to the invention has been added. In case G1/93, *Advanced Semiconductor Products*, the Enlarged Board of Appeal of the EPO stated (at paragraph [9] of its reasons) that the idea underlying Art. 123(2) is that that an applicant should not be allowed to improve his position by adding subject matter not disclosed in the application as filed, which would give him an unwarranted advantage and could be damaging to the legal security of third parties relying on the content of the original application. At paragraph [16] it explained that whether an added feature which limits the scope of protection is contrary to Art. 123(2) must be determined from all the circumstances. If it provides a technical contribution to the subject matter of the claimed invention then it would give an unwarranted advantage to the patentee. If, on the other hand, the feature merely excludes protection for part of the subject matter of the claimed invention as covered by the application as filed, the adding of such a feature cannot reasonably be considered to give any unwarranted advantage to the applicant. Nor does it adversely affect the interests of third parties.
- [102] Sixth, it is important to avoid hindsight. Care must be taken to consider the disclosure of the application through the eyes of a skilled person who has not seen the amended specification and consequently does not know what he is looking for. This is particularly important where the subject matter is said to be implicitly disclosed in the original specification.'
8. When amendment of a granted patent is being considered, the comparison to be made is between the *application* for the patent, as opposed to the granted patent, and the proposed amendment (see the definition of 'additional matter' in s.76(1)(b)). It follows that by and large the form of the granted patent itself does not come into the comparison. This case was to some extent overcomplicated by looking at the granted patent, particularly the granted claim 1.
9. A particular, and sometimes subtle, form of extended subject matter (what our Act calls 'additional matter') is what goes by the jargon

term ‘intermediate generalisation’. Pumfrey J described this in *Palmaz’s European Patents* [1999] RPC 47, 71 as follows:

‘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”.’”

Claim 11

124. As noted above, the application for the RFID Patent as filed (WO 03/060811) contained no claim which includes the feature of a circular antenna surrounding an aperture of the cylinder. Indeed, none of the 11 claims of the application mention the antenna at all. Eagle contends that claim 11 of the RFID Patent constitutes added matter. In short, Eagle says that it is an intermediate generalisation. DataCard disputes this.
125. In my judgment claim 11 does constitute added matter. The application as filed discloses a circular antenna surrounding the aperture of the cylinder only in the context of the first embodiment described by reference to Figures 1-3. Nowhere does the application suggest that the feature of a circular antenna surrounding the aperture is of any inventive significance. It is true that, as counsel for DataCard pointed out, the application states at page 10 lines 25 (corresponding to the second sentence of [0048] of the RFID Patent quoted in paragraph 56 above) that “other locations of the tag are possible”. But it then proceeds immediately to describe an embodiment in which the tag does not have a circular antenna surrounding the aperture. Moreover, the passage at page 12 lines 7-13 (corresponding to [00556] of the RFID Patent quoted in paragraph 60 above) reinforces the impression that the precise shape and location of the tag is not of significance to the invention.
126. Claim 11 takes the feature of a circular antenna surrounding the aperture divorced from the context of the first embodiment. Accordingly, it is stripped of all the other features described and shown in Figures 1-3, for example, the feature that the antenna is fitted within a recess in one end of the supply cylinder. That is a classic intermediate generalisation. I would add that this is not one of those cases, like *Napp*, where the claim covers something without disclosing it and thus does not add matter.
127. Although, strictly speaking, it makes no difference as a matter of law, in my view DataCard’s proposed amendment to incorporate the feature of claim 11 into claim 1 makes the added matter even clearer.

THE ERROR LOADING PATENT

128. DataCard contends that Eagle has infringed the Error Loading Patent by sales of the same products as are alleged to infringe the RFID Patent. DataCard alleges that Eagle has infringed some claims of the Error Loading Patent pursuant to section 60(1) of the 1977 Act, and others pursuant to section 60(2). By the end of the trial, Eagle had accepted that its products fall within a number of claims of the Error Loading Patent. It nevertheless denies infringement of those claims alleged to have been infringed pursuant to section 60(2). In addition, Eagle attacks the validity of the Error Loading Patent on three grounds: (i) obviousness over the Fargo Electronics Pro-L printer and its ribbons (“Fargo Pro-L”); (ii) obviousness over US Patent No. 6,257,780 (“Brother”); and (iii) obviousness over Japanese Unexamined Patent Application No. H10-329378 (“Sharp”). By the end of the trial, DataCard had accepted that claim 1 as granted is invalid in the light of Fargo Pro-L. As stated above, DataCard has applied to amend the Error Loading Patent.

The Patent

129. The specification of the Error Loading Patent is entitled “Supply items for printers and the like, and method of loading supply items”. There is no challenge to the earliest claimed priority date of 31 July 2002.

130. Under the heading “Field of the Invention”, the specification states at [0001]:

“The invention relates to printers, laminators and other equipment to produce data bearing identification or financial documents, including plastic cards such as financial (e.g. credit and debit) cards, drivers’ licenses, national identification cards, and other similar cards, as well as identification and financial documents, such as passports. In particular, the invention relates to supply items used in such equipment, and to a method of facilitating the loading of the supply item into the equipment.”

It is clear from this paragraph that the invention is not restricted to the field of card printers, or even printers, nor is it restricted to ribbons for such printers as opposed to other types of supply items (i.e. consumables). This is confirmed by later passages at [0004] (quoted below), [0007] and [0014].

131. Under the heading “Field of the Invention”, the specification identifies the problem addressed by invention as follows:

“[0003] These ribbons need to be replaced as they are used up. However, replacement of the ribbon can be difficult, especially for those who are inexperienced or unfamiliar with the printer. It is not unknown for operators of such printers to incorrectly position the take-up cylinder where the supply cylinder is intended to be positioned, and vice-versa, or to try to position the supply and take-up cylinders at incorrect positions within the printer. In addition, the supply and take-up cylinders can be positioned upside down in the printer so that the ribbon is in

the wrong wind direction (e.g. unwound from the supply cylinder and wound onto the take up cylinder from the bottom of the cylinders rather than the top).

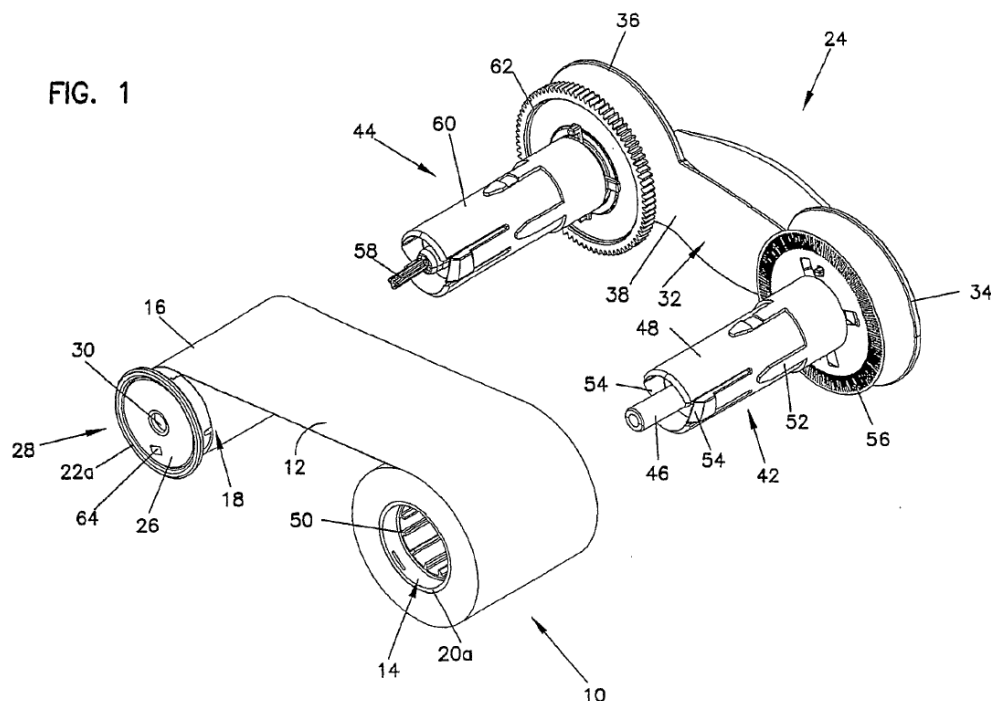
[0004] Similar difficulties exist for other supply items, for example webs that carry laminate patches, cleaning tape or ribbon, holographic overlays, and other exhaustible web materials, used in equipment for producing identification and financial documents. There is need for improvement to facilitate loading of supply items into data bearing identification or financial document production equipment.”

132. Although the specification contains a “Summary of the Invention” at [0007]-[0012], nothing turns on this for present purposes.

133. Under the heading “Detailed Description of the Invention”, the specification states at [0015]:

“The supply item and the carrier are modified to facilitate loading of the supply item onto the carrier in the proper orientation, and the carrier can be more easily loaded into the production equipment in the correct orientation. A variety of modifications can be utilized to achieve these goals. The preferred modification will be discussed in detail below.”

134. The specification goes on to describe a preferred embodiment of a supply item and a carrier at [0016]-[0031] by reference to Figures 1 to 4. I reproduce Figure 1 below (which, as can be seen, is very similar to Figure 5 of the RFID Patent):



135. The supply item 10 includes a print ribbon 12 wound onto a supply cylinder 14. The specification states in [0017] that:

“The ribbon 12 includes a take-up end 16 that is attached to a take-up cylinder 18 that is cylindrical in shape and upon which used ribbon is wound.”

136. The specification explains how the loading of the supply item 10 onto the carrier 24 is facilitated as follows:

“[0018] The supply cylinder 14 includes first and second 5 ends 20a, 20b and is generally hollow from the first end to the second end. Likewise, the take-up cylinder 18 includes first and second ends 22a, 22b and is generally hollow from the first end to the second end. Preferably, the ends 20a, 20b, 22a, 22b of the cylinders 14, 18 are designed to facilitate loading of the cylinders 14, 18 onto a carrier 24 (to be later described in detail) in the proper orientation, thereby simplifying ribbon replacement. More preferably, a difference in the geometry of the ends of the cylinders 14, 18 is used to achieve the simplified replacement.

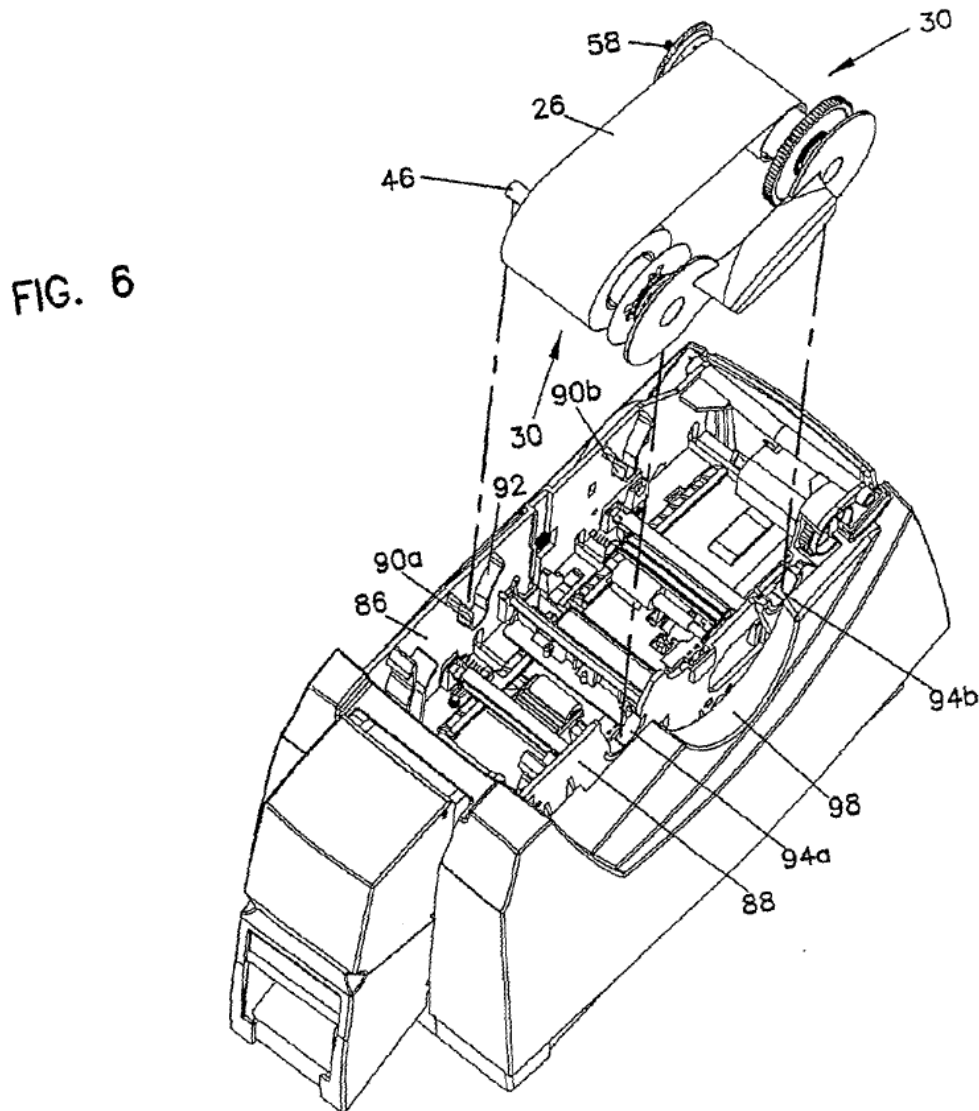
[0019] With reference to Figures 1 and 3, the ends 20a, 20b of the cylinder 14 each define an opening having an area, with the area of the opening at the end 20a being substantially equal to the area of the opening at the end 20b. In addition, the ends 22a, 22b of the cylinder 18 each define an opening having an area. However, the end 22a of the cylinder 18 is closed by a wall 26 that forms part of a cap 28 that is connected to the end 22 of the cylinder 18. An opening 30 is provided in the wall 26. Thus, the area of the opening 30 at the end 22a is different than the area of the opening at the end 22b, and the area of the opening 30 is different than the area of the opening at the end 20a of the cylinder 14.

[0020] The difference in the geometry of the openings at the ends 20a, 22a of the cylinders 14, 18 limit how the cylinders 14, 18 can be connected to the carrier 24. While the end of the cylinder 18 is described as having an opening 30 with an area less than the opening at the end of the cylinder 14, it is to be realized that the reduced area opening can be provided on the cylinder 14 rather than on the cylinder 18....”

137. The specification goes on to say in [0028] that the different geometries include differences in sizes, differences in shapes and combinations thereof. At [0033]-[0034] the specification describes by reference to Figure 9 an alternative embodiment in which the supply cylinder is formed with a rectangular shaped hole in the wall of an end cap and the take-up cylinder is formed with a circular hole in the wall of the end cap.
138. In the embodiment shown in Figure 1 pins 46 and 58 project past the ends of the spindles 48 and 50 of spindle assemblies 42 and 44 on which the supply and take-up cylinders respectively are loaded. In this embodiment pin 58 is fluted while pin 46 is circular. The specification states at [0032] that the pins could have similar shapes, but

different sizes. It gives as an example by reference to Figure 8 pins which are both circular, but of different diameters.

139. At [0038]-[0043] the specification describes by reference to Figures 5-7 the loading of the supply item 10 and carrier 24 into a thermal printer. I reproduce Figure 6 below:



140. The specification explains how the loading of the carrier into the printer is facilitated at [0041]:

“... The side wall 86 includes first and second support structures that project inward from the wall 86 for supporting the free ends of the pins 46, 58. Each support structure comprises a base section 90a, 90b that is closed at the bottom thereof to support the ends of the pins, for example pins 46, 58, thereon, and a guide section 92 composed of converging wall portions that converge toward the base section 90a, 90b. The converging construction of the guide sections 92 help to guide the respective free ends of the pins 46, 58 into the respective base sections 90a, 90b, thereby making it easier for an operator

of the printer to insert the carrier 24 into the printer 70. As best shown in Figure 7, it is preferred that the base sections 90a, 90b generally match the size of the ends of the pins 46, 58, in which case the size of the base section 90a for the end of the pin 46 is larger than the size of the base section 90b for the end of the pin 58.”

141. Thus the pins on the end of the spindles serve three functions. First, they prevent incorrect loading of the ribbon on the carrier outside the printer. Secondly, they prevent incorrect loading of the carrier in the printer. And thirdly, they support the otherwise unsupported ends of the spindles in the printer.
142. It is common ground, however, that the arrangement disclosed in the Error Loading Patent does not completely prevent incorrect loading of the ribbon onto the carrier. It does not prevent the user from loading the ribbon twisted through 360°. Nor does it prevent the user from starting to load the ribbon incorrectly, although he or she will soon find out that they are doing it wrongly.

The claims as proposed to be amended

143. The amendments sought by DataCard fall into two categories. First, it proposes to amend claim 1 by the addition of certain new features. Secondly, it proposes to add new subsidiary claims 11 (dependant on any of claims 1-10), 13 and 14 (both dependent on claim 11) with consequential renumbering of granted claims 11 and following. By the end of the trial, DataCard’s position was that its application to amend claim 1 was unconditional, whereas it only sought to make the second category of amendments if and to the extent necessary to meet Eagle’s validity attacks. Nevertheless, I will refer to the claims in issue by their numbers as proposed to be amended.
144. Broken down into integers, claim 1 as proposed to be amended is as follows (the amendments are underlined):
 - “[1] A supply item for data bearing identification or financial document production equipment,
 - [2] and loadable onto a supply spindle and a take-up spindle of a carrier, comprising:
 - [3] a supply cylinder having first and second ends,
 - [4] and having ribs provided on the interior surface to prevent rotation relative to the supply spindle,
 - [5] the first end defining a first opening having a first geometry and the second end defining a second opening;
 - [6] a take-up cylinder having first and second ends,
 - [7] and having ribs provided on the interior surface to prevent rotation relative to the supply spindle,

- [8] the first end of the take-up cylinder defining a first opening having a second geometry, the second geometry is different than the first geometry and the second end defining a second opening;
- [8] a web material wound onto the supply cylinder; the web material including a take-up end that is attachable to the take-up cylinder;
- [9] wherein the first end of at least one of the supply cylinder or the take-up cylinder defining an inner perimeter where the first end is partially closed when viewed in an end plan view,
- [10] the first opening at the first end of the supply cylinder or the take-up cylinder being disposed within the inner perimeter,
- [11] the first opening having an area less than an area of the second opening at the second end of the supply cylinder or the take-up cylinder
- [12] to limit how the cylinders can be connected to the carrier.”

145. Claims 2, 6, 7, 8, 9 and 10 are as follows:

- “2. The supply item of claim 1, wherein the first opening in the first end of the supply cylinder defines a first area, and the first opening in the first end of the take-up cylinder defines a second area, and the second area is less than the first area.
- 6. The supply item of claim 2, wherein the second opening of the second end of the supply cylinder defines a third area, and the second opening of the second end of the take-up cylinder defines a fourth area, and the third area is substantially equal to the fourth area.
- 7. The supply item of claim 2, wherein the first end of the take-up cylinder is closed by a wall, and the second geometry is defined in the wall.
- 8. The supply item of claim 7, wherein the wall comprises a cap that is attached to the take-up cylinder at the first end thereof.
- 9. The supply item of claim 2, wherein the first end of the supply cylinder is closed by a wall, and the first geometry is defined in the wall.
- 10. The supply item of claim 9, wherein the wall comprises a cap that is attached to the supply cylinder at the first end thereof”

146. Proposed new claim 11 is as follows:

“The supply item of any preceding claim further comprising a carrier to which the cylinders can be mounted.”

147. Broken down into integers, claim 12 (claim 11 as granted) is as follows:

- “[1] A carrier for a supply item used in data bearing identification or financial document production equipment, comprising:
- [2] a handle portion having first and second opposite end regions;
- [3] a supply spindle rotatably mounted to the handle portion at the first end region for rotation about a first rotation axis, the supply spindle having a first end adjacent the handle portion and a second end spaced from the first end;
- [4] a first pin projecting past the second end of the supply spindle generally parallel to the first rotation axis;
- [5] a take-up spindle rotatably mounted to the handle portion at the second end region for rotation about a second rotation axis,
- [6] the take-up spindle having a first end adjacent the handle portion and a second end spaced from the first end thereof;
- [7] a second pin projecting past the second end of the take-up spindle generally parallel to the second rotation axis; and
- [8] when viewed in an end plan view, the second pin has a geometry that is different than a geometry of the first pin.”

148. Proposed new claims 13 and 14 are as follows.

- “13. A carrier as claimed in claim 12 further comprising a supply cylinder and a take-up cylinder loaded respectively on said supply spindle and take-up spindle and said supply cylinder having ribs provided on the interior surface to prevent rotation relative with respect to said supply spindle.
- 14. A carrier as claimed in claim 12 further comprising a supply item as claimed in any of claims 1 to 10.”

149. Broken down into integers, claim 19 (claim 16 as granted) is as follows:

- “[1] A method of facilitating loading of a supply item into data bearing identification or financial document production equipment, the method comprising:
- [2] providing a carrier according to claim 14~~2~~ including a supply spindle assembly and a take-up spindle assembly;
- [3] providing a supply item according to claim 1 including a supply cylinder, a take-up cylinder, and a web material wound onto the supply cylinder and having an end thereof attached to the takeup cylinder, said supply cylinder intended to be disposed on said supply spindle assembly and said take-up

cylinder intended to be disposed on said take-up spindle assembly;

- [4] wherein at least one of said supply cylinder and said take-up cylinder, and at least one of said supply spindle assembly and said take-up spindle assembly, are designed so that said supply cylinder or said take-up cylinder can only be disposed on said supply spindle assembly or said take-up spindle assembly respectively; and
- [5] inserting said carrier with said supply cylinder and said take-up cylinder thereon into the document production equipment.”

150. Broken down into integers, claim 22 (claim 19 as granted) is as follows

- “[1] Data bearing identification or financial document production equipment comprising:
 - [2] a housing;
 - [3] a carrier according to claim 11~~2~~ ;
 - [4] a supply item according to claim 1;
 - [5] a chassis disposed in the housing, said chassis having first and second side walls defining a supply item receiving area therebetween,
 - [6] said supply item receiving area at least partially receives said carrier with said supply item,
 - [7] said carrier having a supply spindle assembly with the supply cylinder received on the supply spindle assembly and a take-up spindle assembly with the take-up cylinder received on the take-up spindle assembly,
 - [8] with a web material wound onto said supply cylinder and having a take-up end thereof that is attached to said take-up cylinder; and
 - [9] said first side wall including first and second support structures for supporting ends of the supply spindle assembly and the take-up spindle assembly, respectively, said first support structure
 - [10] and said second support structure having different geometries to match different geometries of the supply spindle assembly and the take-up spindle assembly.”

151. It can be seen that, in summary, claims 1, 2, 6, 7, 8, 9 and 10 are directed to the supply item; claim 12 is directed to the carrier; claim 19 is directed to a method which involves the supply item of claim 1 and the carrier of claim 12; and claim 22 is

directed to the printer when loaded with the carrier of claim 12 and the supply item of claim 1. New claims 11, 13 and 14 are directed to combinations of supply item, cylinder and/or carrier.

152. DataCard alleges that claims 1, 6, 8, 11, 13, 14, 19 and 22 are both independently valid and infringed. In addition, DataCard contends that claims 10 and 12 are independently valid. It does not allege that these claims are infringed.

The skilled team

153. It is common ground that the RFID Patent is addressed to a team of mechanical and electrical engineers with experience in printer design, particularly card printers.

Common general knowledge

154. It is common ground that the matters I have set out in paragraphs 8 to 18 above formed part of the skilled team's common general knowledge. There are three main issues on common general knowledge.
155. In June 2002 there were three big players in the card printer market, namely DataCard, Fargo Electronics and Zebra (Zebra having taken over Eltron a couple of years previously). Mr Klinefelter agreed that these companies all looked at each others' products to see what they were doing, and that smaller companies would look at the big players' products. He also agreed that it would be routine for a skilled team starting to design a new printer first to carry out a competitive analysis of at least the major products on the market. That would include looking at how easy those products were for the end user to use, for example how easy it was to load the ribbons. On the basis of this evidence, counsel for Eagle submitted that at least the principal features, if not necessarily the fine details, of the big three suppliers' principal models marketed prior to July 2002 would have been common general knowledge.
156. In particular, he argued that this would have included a range of four printers launched by DataCard between about March 2000 and about January 2002. Each of the models in this range had a carrier with spindles onto which the ribbon cylinders were loaded. The spindle assemblies included pins which extended beyond the end of the spindles. When the carrier was loaded into the printer, the pins rested on supports so as to align the carrier in the printer and keep the ends of the spindles stable. Accordingly, and as Mr Klinefelter accepted, anyone who carried out a competitive analysis would have been aware of that concept.
157. Counsel for DataCard submitted that it had not been proved that this concept was common general knowledge. In particular, he relied on the fact that Dr Schäfer had not been aware of the DataCard printers in question. Indeed, he was unaware of any examples of carriers with spindles prior to the priority date. In my judgment this does not show that the concept was not common general knowledge. As I have observed above, Dr Schäfer was not properly representative of the skilled team. Albeit with some hesitation, I conclude that the concept was common general knowledge.
158. As counsel for DataCard pointed out, however, the two spindle assemblies on the carriers for the DataCard printers in question were identical to each other, as were the ribbon cylinders. In this sense, these printers exemplified the error loading problem.

159. Counsel for Eagle also submitted that the arrangement used in an Eltron printer called the P310 was common general knowledge on the same basis. This arrangement was said to consist of cylinders the ends of which differed from each other directly loaded onto spindles with different ribs, as to prevent the cylinders being loaded the wrong way round. I say “said to consist” because Eagle was unable to produce an illustration of the arrangement. The best it could produce was an Eltron promotional document dated May 1999 which includes among a list of new features a “new ribbon system” which “can only be installed in one direction” with “new spindles & cores designed with slots and grooves” with the benefits “can not accidentally reuse old ribbons or install new ones backward” and “easy to install, self-aligning”. Counsel for Eagle submitted that Mr Klinefelter had accepted that the P310 had had the arrangement I have described. Counsel for DataCard disputed this, submitting that Mr Klinefelter had merely acquiesced in an assumption which was put to him. As I read his evidence, however, Mr Klinefelter accepted that at some point the P310 had this arrangement, he just wasn’t sure when. The document suggests that it was available in May 1999. Mr Klinefelter had no alternative explanation of the contents of the document. Moreover, I think he ended up accepting that the arrangement was available by July 2002.
160. Even though Mr Klinefelter also accepted that someone doing a competitive analysis would come across the P310, however, I am not satisfied that it has been proved that this arrangement was common general knowledge. In my view a single commercial example is not enough for this purpose. The position is different in the case of the DataCard printers because that involved a range of four models (indeed, all bar one of DataCard’s printers at the time) with the same arrangement, and therefore it is much more likely that the skilled team would be aware of at least one of them.
161. Finally, Mr Klinefelter accepted that some of the prior art in this case showed that a common way of addressing the error loading problem in printers with cylinders on hubs was to shape one end of one of the cylinders differently from the other three and to shape one of the hubs so that it only fitted into that end. In my judgment this evidence does not establish that this concept was common general knowledge either.

Construction

162. By the end of the trial there were no issues to the construction of the claims of the Error Loading Patent relevant to infringement. There are, however, two issues which are relevant to validity.
163. The first is as to the meaning of the term “spindle”. It is common ground that this is an ordinary English word with no special meaning in this art. According to the *Concise Oxford Dictionary* it means “pin or axis which revolves or upon which a thing revolves”. It is also common ground that, in the context of the Error Loading Patent, the word is used by the patentee to describe the object upon which the cylinders of the supply item are mounted. Eagle contends that any shaft on which the supply item can be mounted is a spindle for the purposes of the claim. By contrast DataCard contends that the term is limited to a member which supports the cylinder from one side and passes all the way through the cylinder. The basis for DataCard’s contention is that that is what is described and shown in the specific embodiments. DataCard has identified no technical or other reason, however, why the skilled team

would think that the claims were limited to the type of spindle disclosed in the specific embodiments. Accordingly, I accept Eagle's construction.

164. The second is as to the meaning of the term "carrier". It is common ground that this is an ordinary English word with no special meaning in this art. It is also common ground that, in the context of the Error Loading Patent, the word is used by the patentee to describe the object on which the supply item is mounted. Eagle contends that it covers any object onto which the supply item can be mounted prior to installation into the printer, regardless of whether it is designed to be loaded by the user or pre-loaded at a factory. DataCard contends that it is limited to carriers in the sense described above i.e. ones loaded by the user. Again, the basis for DataCard's contention is that that is what is described and shown in the specific embodiments. Again, however, DataCard has identified no technical or other reason why the skilled team would think that the claims were limited to the type of carrier disclosed in the specific embodiments. Accordingly, I accept Eagle's construction.
165. Counsel for Eagle made three points with regard to the construction of the new features proposed to be introduced into claim 1 by amendment which I did not understand counsel for DataCard to dispute, but which in any event I accept. The first concerns integer [2]. As counsel for Eagle submitted, this merely requires the supply item to be *capable* of being loaded onto the spindles of an *otherwise unspecified* carrier. The second concerns integers [4] and [7]. As counsel for Eagle submitted, these merely require the presence of ribs on the interior of the cylinder that are *capable* of preventing rotation of the cylinder if the supply item is mounted onto an appropriate carrier. The third concerns integer [12]. As counsel for Eagle submitted, this merely requires that the cylinders have features which are *capable* of limiting how they can be loaded onto an appropriate carrier. This adds nothing of substance to the existing requirements of the claim. Underlying each of these three points is the fact that, even as proposed to be amended, claim 1 is a claim to the supply item. Claim 1 does not require the presence of a carrier, still less a carrier of any particular design.

Infringement

166. As noted above, by the end of the trial Eagle had accepted that the products complained of by DataCard fell within claim 1 as proposed to be amended, and claims 6 and 8. Accordingly, Eagle did not dispute that, if any of those claims is valid, it has infringed that claim pursuant to section 60(1). Nor did it dispute that its products had all the features of the supply item for the purposes of claims 11, 19 and 22. Those claims are alleged to be infringed pursuant to section 60(2). Eagle does not dispute infringement of claim 11 if it is both valid and a permissible amendment, but it denies infringement of claims 19 and 22.
167. Section 60(2) provides:

"Subject to the following provisions of this section, a person (other than the proprietor of the patent) also infringes a patent for an invention if while the patent is in force and without the consent of the proprietor, he supplies or offers to supply in the United Kingdom a person other than a licensee or other person entitled to work the invention with any of the means, relating to

an essential element of the invention, for putting the invention into effect when he knows, or it is obvious to a reasonable person in the circumstances, that those means are suitable for putting, and are intended to put, the invention into effect in the United Kingdom.”

168. Eagle does not dispute that its supplies of the products complained of satisfy all the requirements of section 60(2) bar one. It contends, however, that the end users of its products are licensees or otherwise entitled to work the invention. The basis for this contention is that, as is common ground, the purchasers will be purchasing the ribbons for loading into printers purchased from DataCard, and will use the carrier supplied by DataCard with the printers for that purpose. In those circumstances, Eagle contends that the purchasers have an implied licence to work the inventions of claims 19 and 22, alternatively that DataCard’s rights in respect of those claims are exhausted by sale of the printers.
169. Counsel for Eagle submitted that what mattered was the entitlement of the end user to work the invention, rather than a middleman, relying upon the recent decision of the Court of Appeal in *Grimme Landmaschinenfabrik GmbH & Co KG v Scott* [2010] EWCA Civ 1110 at [114]-[131]. Counsel for DataCard did not dispute this.
170. It is common ground that that it is necessary for the ultimate user of the printer to carry out the method of claim 19 by the mere act of loading a supply item in accordance with claim 1 and a carrier in accordance with claim 12 into his printer in the intended manner. In carrying out that necessary process, the user will inevitably also bring into existence the printer of claim 22.
171. It is also common ground that there are no conditions on the sale of DataCard’s printers restricting the user to using only ribbons sold by DataCard. On the contrary, DataCard’s warranty states:
- “If the Printer proves to be defective in materials or workmanship during the warranty period, Datacard will, at its option, repair or replace or refund the price paid for the printer.
...
- Repairs, adjustments or parts replacement required due to accident, abuse, misuse, unauthorized modification or maintenance of the Printer or software, or the use of peripherals, supplies or software that are not supplied by Datacard will be charged using Datacard’s then current rates.”
172. Eagle does not contend that the second paragraph quoted above amounts to an express licence to use ribbons supplied by third parties, but does submit that it recognises that the user is permitted to use such ribbons. DataCard contends that it is merely a limitation of the scope of the warranty. If Eagle is intending to suggest that this clause in itself founds an implied licence, I do not accept that. I do accept, however, that it reinforces the absence of any contractual restriction on the user.
173. Both counsel relied upon passages from the speech of Lord Hoffmann, with whom the other members of the House of Lords agreed, in *United Wire Ltd v. Screen Repair*

Services (Scotland) Ltd [2001] RPC 24. The issue in that case was whether the defendant had infringed the claimant's patents in suit by reconditioning mesh screens originally supplied by the claimant. The House of Lords upheld the Court of Appeal's conclusion that the defendant had infringed the patents because its acts amounted to making the claimed articles rather than merely repairing them.

174. Counsel for Eagle relied on the following passage from Lord Hoffmann's speech:

“68. My Lords, the point is a very short one and in my opinion the Court of Appeal was right. The concept of an implied licence to do various acts in relation to a patented product is well established in the authorities. Its proper function is to explain why, notwithstanding the apparent breadth of the patentee's rights, a person who has acquired the product with the consent of the patentee may use or dispose of it in any way he pleases. The traditional Royal Command in the grant of a patent forebode others not only to ‘make’ but also to ‘use, exercise or vend’ the invention. Similarly, section 60(1)(a) provides that a person infringes a patent for a product not only if he ‘makes’ it but also if, without the consent of the proprietor, he ‘disposes of, offers to dispose of, uses or imports the product or keeps it whether for disposal or otherwise.’ Put shortly, the problem is to explain why, for example, a patentee cannot not complain when someone to whom he had sold the patented product then, without any further consent, uses it or disposes of it to someone else. The answer given by Lord Hatherley L.C. in the leading case of *Betts v. Willmott* (1871) L.R. 6 Ch. App. 239, 245 (which concerned the resale of a patented product) was that he did so by virtue of an implied licence.

“I apprehend that, inasmuch as [the patentee] has the right of vending the goods in France or Belgium or England, or in any other quarter of the globe, he transfers with the goods necessarily the licence to use them wherever the purchaser pleases. When a man has purchased an article he expects to have the control of it, and there must be some clear and explicit agreement to the contrary to justify the vendor in saying that he has not given the purchaser his licence to sell the article, or to use it wherever he pleases as against himself.”

69. An alternative explanation, adopted in European patent systems, is that of exhaustion of rights. The patentee's rights in respect of the product are exhausted by the first sale: see *Merck & Co. Inc. v. Primecrown Ltd.* [1997] 1 C.M.L.R. 83, 119. The difference in the two theories is that an implied licence may be excluded by express contrary agreement or made subject to conditions while the exhaustion doctrine leaves no patent rights to be enforced.”

175. Counsel for DataCard relied on the following passage from Lord Hoffmann's speech:

“70. Where however it is alleged that the defendant has infringed by making the patented product, the concepts of an implied licence or exhaustion of rights can have no part to play. The sale of a patented article cannot confer an implied licence to make another or exhaust the right of the patentee to prevent others from being made. A repair of the patented product is by definition an act which does not amount to making it: as Lord Halsbury L.C. said of the old law in *Sirdar Rubber Co. Ltd. v. Wallington, Weston & Co.* (1907) 24 R.P.C. 539, 543:

‘you may prolong the life of a licensed article but you must not make a new one under the cover of repair.’

71. Repair is one of the concepts (like modifying or adapting) which shares a boundary with ‘making’ but does not trespass upon its territory. I therefore agree with the Court of Appeal that in an action for infringement by making, the notion of an implied licence to repair is superfluous and possibly even confusing. It distracts attention from the question raised by section 60(1)(a), which is whether the defendant has made the patented product. As a matter of ordinary language, the notions of making and repair may well overlap. But for the purposes of the statute, they are mutually exclusive. The owner’s right to repair is not an independent right conferred upon him by licence, express or implied. It is a residual right, forming part of the right to do whatever does not amount to making the product.”

176. On the facts of the case, Lord Hoffmann agreed with the Court of Appeal that the defendant had made claimed articles rather than repairing them because it had acquired used screens, stripped them down to their frames and covered the frames with new mesh. As he explained at [73]:

“It is quite true that the defendants prolonged the useful life of the *frame*. It would otherwise presumably have been scrapped. But the *screen* was the combination of frame and meshes pre-tensioned by attachment with adhesive according to the invention. That product ceased to exist when the meshes were removed and the frame stripped down to the bare metal. What remained at that stage was merely an important component, a skeleton or chassis, from which a new screen could be made.”

177. Counsel for DataCard also relied upon the recent decision of Floyd J in *Schütz (UK) Ltd v Werit UK Ltd* [2010] EWHC 660 (Pat), [2010] FSR 22. In that case the claimant Schütz was the exclusive licensee of two patents relating to intermediate bulk containers consisting of an outer protective cage and a removable plastic inner bottle. Schütz alleged that the defendant Werit had infringed the patents in suit pursuant to section 60(2) by supply its own plastic bottles to be retrofitted by a third party Delta into second hand Schütz cages. Werit contended that fitting the inner bottle into the outer cage did not amount to making the claimed article. Having considered *United Wire* and three German authorities, Floyd J held:

“196. The difficult question, as it seems to me, is the case where the invention resides, or resides principally, in the part retained.

This was not the case in *United Wire*. The reason this question gives rise to difficulty is that in such cases the defendant is not really making a new use of the invention at all. Mr Thorley gave the example of an inventive tennis racquet frame. The claim calls for a strung racquet coupled to the inventive frame. Does this prevent re-stringing, even though the invention is said to lie in the features of the frame alone? Instinctively one would say not. Does it make a difference if what the defendant does is buy second hand racquets, re-string them and sell them in competition with the patentee? Instinctively, I can see no reason why the owner of the secondhand product should be making a new patented product when the original owner was not. Considerations such as these drive one to say that the relevant test ought to have regard to the part of the product in which the invention resides.

197. In my judgment the correct approach is to ask whether, when the part in question is removed, what is left embodies the whole of the inventive concept of the claim. I think that Mr Meade's approach, with its emphasis on the form rather than the substance of the claim, is too mechanical, and leads to results which are contrary to principle. I think that if one applies this test to the facts of *United Wire* one reaches the same conclusion because the inventions did not reside wholly in the frame or wholly in the mesh. It was a true combination."
178. On the facts of the case he concluded as follows:
- "206. I have come to the conclusion that the activity of replacing the inner container of a Schütz IBC with a Werit bottle does not amount to making the patented product of claim 1 of either 307 or 967. It seems to me that the inventive concept of each of these claims is wholly embodied in the Schütz cage. Thus when the bottle is removed, the part retained embodies the whole of the inventive concept.
207. It is true that changing the bottle will mean that the forces between the cage and the bottle (and indeed the bottle and the ties or the bottle and the base) will be different: but that does not mean that the inventive concept resides partially in the bottle. In each case the invention is concerned exclusively with making a better cage. So much is clear from reading the patent."
179. In the present case, it is important to note that, as counsel for Eagle pointed out, the dispute as to section 60(2) only becomes relevant if claims 1, 6 and 8 to the supply item are invalid. If they are valid, then Eagle has infringed them pursuant to section 60(1). In those circumstances, any question of infringement of claims 16 and 19 pursuant to section 60(2) is academic. I would add that I find it difficult to see how in those circumstances there could be an implied licence on the part of the end user

under claims 19 and 22; but it is not necessary to come to a concluded view on that point.

180. But what if all the supply item claims are invalid, but claims 19 and/or 22 are valid? As counsel for Eagle also pointed out, different considerations apply to claim 19 on the one hand and claim 22 on the other hand, not least because claim 19 is a method claim whereas claim 22 is a product claim.
181. In the case of claim 19, counsel for DataCard submitted that the inventive concept lay in the cooperation between the spindles on the carrier, the pins at the end of the spindles and the features of the supply item. On that basis, he argued that, applying the approach suggested by Floyd J in *Schütz*, removal of the supply item did not affect the inventive concept.
182. I do not accept this argument. There can be no dispute that the purchaser of a DataCard printer has an implied licence to use the carrier which comes with it, and to that extent to perform the method of claim 19. Nor for the reasons explained above, is there any contractual restriction upon the purchaser acquiring supply items from elsewhere. If the supply item claims are invalid and the purchaser uses a supply item from Eagle, can it be said that the purchaser is performing the method of claim 19 in an unlicensed manner? In my judgment the answer to that question is no, since in those circumstances the key parts of the inventive concept of claim 19 relate to the carrier.
183. Turning to claim 22, counsel for DataCard submitted that the inventive concept lay in the cooperation between the spindles on the carrier, the pins at the end of the spindles, the feature of the supply item and the support structures in the printer. Again, he argued that removal of the supply item did not affect the inventive concept.
184. Again, I do not accept that argument. In my judgment the inventive concept of claim 22 mainly relates to the cooperation between the carrier (and in particular the pins on the spindle assemblies) and the printer (and in particular the support structures which receive the pins). The supply item is largely incidental. In my judgment the owner of a DataCard printer does not make a printer falling within claim 22 merely by loading a third party supply item onto the carrier that comes with the printer and then loading the carrier into the printer. This is all the more so if the claims to the supply item are invalid.
185. For these reasons I conclude that, if the claims to the supply item are invalid, Eagle has not infringed claims 19 and 22 pursuant to section 60(2).

Obviousness over Fargo Pro-L

Fargo Pro-L

186. The Fargo Pro-L printer has four hubs, three of which are large and one of which is smaller (and obviously so). The ribbon is supplied on two cylinders. One of the ends of the cylinders is different to the other three ends in that it is fitted with a closely fitting circular insert. This insert has an aperture which is concentric with the circumference of the insert and the inner circumference of the cylinder. The insert contains a number of metal pins disposed in a circle concentric with the aperture. The

aperture enables the end of the cylinder with the insert to fit onto the smaller of the four hubs, but is not large enough to fit properly onto the other three hubs.

187. The arrangement described above is the subject of US Patent No 5,755,519, of which Mr Klinefelter was the inventor. As he explained, the principal reason for the provision of the insert was to carry the metal pins. The presence or absence of these was detected by a Hall Effect sensor, which enabled identification of the cylinder and hence (depending on the pin arrangement) the type of ribbon.
188. Mr Klinefelter also explained that the fact that one of the four ends of the cylinder was different to the other three had the incidental benefit of reducing erroneous loading. As he accepted, the arrangement of three large hubs and one small hub provides an obvious visual clue for the user. It would be apparent to most users even without reading the manual that the cylinder with the insert was intended to fit onto the small hub. Moreover, even if the user started by loading the wrong cylinder onto wrong hubs, he or she would be likely quickly to appreciate the mistake. To that extent, the Pro-L arrangement would prevent erroneous loading.
189. Despite this, the Fargo Pro-L manual contains the following warning:

“IMPORTANT! Do not reverse the ribbon. Damage may occur to the thermal printer head!”

190. DataCard contends that this shows that the design of the Fargo Pro-L did not completely prevent erroneous loading. Furthermore, DataCard demonstrated that it is physically possible to place the cylinder with the insert onto the wrong pair of hubs. This is something of a struggle, however, and I consider that most users would appreciate that they were fitting the ribbon the wrong way round. As for the warning in the manual, this was no doubt designed to protect Fargo Electronics in the event of any complaints.
191. The design of the Fargo Pro-L would not, of course, stop the user from loading the cylinders with the ribbon twisted through 360°.

Claim 1

192. DataCard accepts that claim 1 as granted is anticipated by Fargo Pro-L ribbons, but contends that claim 1 as proposed to be amended is both novel and inventive.
193. *Step 1.* I have identified the skilled team and their common general knowledge above.
194. *Step 2.* As mentioned above, there is no real issue as to the construction of claim 1 as proposed to be amended. I will proceed by reference to the claim, but it is nevertheless worth noting that the core of the inventive concept of claim 1 is that one end of one of the cylinders of a supply item has a different geometry to that of the other three ends so that the supply item can be correctly loaded onto a carrier having appropriately-shaped spindles.
195. *Step 3.* It is common ground that Fargo Pro-L discloses all the features of claim 1 as granted, but not the additional features proposed to be included by amendment. Accordingly, the differences are that, whereas in Fargo Pro-L the cylinders are

directly loaded onto hubs in the printer, in claim 1 as proposed to be amended the cylinders are loadable onto spindles on a carrier, the cylinders have ribs on their interior surfaces and the differences in the ends of the cylinder are capable of limiting how the cylinders can be connected to a carrier.

196. *Step 4.* Eagle's case as to the obviousness of amended claim 1 over Fargo Pro-L is as follows. A disadvantage with the method of loading the ribbon used in the Fargo Pro-L was that it was fiddly to fit the cylinders onto the four hubs inside the printer. A well-known and obvious alternative method of loading a ribbon in 2002 was direct loading onto two spindles in the printer. This was a method that was particularly popular with one of the "big three" manufacturers, Eltron/Zebra. There could be nothing inventive in the skilled team who had been tasked with designing a new printer in 2002 deciding to adopt this alternative approach as opposed to the Fargo approach of direct loading onto hubs. Once the skilled team decided to adopt the direct loading onto spindles approach, it would have been immediately apparent to them that the cylinders would need to have ribs on the inside so as to enable the spindles to drive the cylinders. At that point they would have arrived at a supply item within amended claim 1, because the geometry of the ends of the cylinders would be capable of limiting loading onto spindles on an appropriate carrier. The fact that there would be no carrier is immaterial.

197. Mr Klinefelter accepted this case when it was put to him in cross-examination:

"Q. Now, what I want you to do now is to consider a skilled team. This time the date is July 2002 rather than December 2001, but I am not sure that matters too much. I want you to consider a team who has been tasked with making a new card printer in July 2002 and they have the Fargo ribbons and the Fargo printer in front of them.

A. Okay.

Q. Now, the Fargo printer used direct loading onto hubs in the printer?

A. Correct.

Q. We discussed yesterday that was one well-known way of loading ribbons, but it's a way that some people might not like because it's fiddly to drop the ribbons onto the hubs in the confined area of the printer?

A. Correct.

Q. One well-known alternative to directly onto hubs was directly onto spindles?

A. Correct.

Q. And we saw those in those Eltron printers we looked at yesterday?

A. Correct.

Q. Of course this requires a side opening so you can get at the spindles, which has the benefit of making it easier to slide the ribbons on rather than having to fiddle down in the bowels of the machine?

A. It also had the disadvantage of having to feed the ribbon under the print head, which was also a problem in that particular case.

- Q. It's like all things in life, everything: there are advantages and disadvantages. But there is certainly a disadvantage with having -- the loading of the ribbon in the Fargo Pro-L printer would be avoided?
- A. I agree.
- Q. Now, so far, if you were starting with a project to design a new printer, designing a printer that used direct loading onto spindles as opposed to direct loading onto hubs would just be doing an obvious alternative way that was very well-known in the field?
- A. Correct.
- Q. If you are using spindles, of course it's immediately apparent that what you need is you need ribs inside the cylinders so that the spindles can engage with the ribs and can drive the cylinder?
- A. That would be a logical conclusion, yes.
- Q. Of course it was very common to have ribs on both cylinders so you could drive the ribbon both ways?
- A. Correct.
- Q. Now, insofar as the inserts are concerned, that obviously partially closes the end of the cylinder?
- A. You are talking about the Fargo inserts?
- Q. The Fargo --
- A. Yes.
- Q. And to that extent, it's no different from the cap in the Plus-Ribbon, is it?
- A. In geometry, no.
- Q. Insofar as with appropriately sized and shaped spindles or pins the Plus-Ribbon can limit error loading, the same applies to the Fargo ribbon; that's right, isn't it?
- A. Yes, in different ways. Yes."

198. DataCard advanced five main arguments in answer to this case. First, DataCard argues that the skilled team would have no motive to change from the hub design of the Fargo Pro-L. In my judgment this does not assist DataCard. As discussed in paragraphs 94-95 above, the absence of motive is not conclusive. Changing from one well-known ribbon loading arrangement to another one is not something that requires a specific motive, because they are technically obvious alternatives to each other. Furthermore, in the present case there would be a motive, namely the desire for a less fiddly method of loading the ribbon.
199. DataCard's second argument is that, far from having a motive to change the hub arrangement, the skilled team would have a motive not to change it. This is that the main purpose of the Fargo Pro-L arrangement was to use the metal pins in the insert in one of the cylinders to identify the ribbon. In my judgment this does not assist DataCard either. Changing the loading method from hubs to spindles would not necessitate changing the insert, nor prevent the ribbon being identified by means of a Hall Effect sensor (assuming that the skilled team wanted to retain that method of identification rather than using an RFID tag instead).

200. DataCard's third argument is that, if the skilled team decided to change from hubs to spindles, it would be into a complete re-design of at least the ribbon-loading aspects of the machine. In those circumstances, why would the skilled team change one aspect of the loading arrangement (the hubs), but keep another aspect (the geometry of the ends of the cylinders)? DataCard argues that the skilled team would only do this if they appreciated the potential benefit from doing so, but that would require an inventive insight. I do not accept this argument. For the reasons discussed above, the advantage of the differential geometry of the ends of the cylinders in terms of preventing error loading when combined with suitable hubs would be apparent to the skilled team. It would not take invention to appreciate that precisely the same advantage could be obtained when replacing hubs driven by means of notches with spindles driven by ribs. Nor would it take invention to appreciate that, just as one pair of hubs has to be differentiated from the other pair, so too one spindle would have to be differentiated from the other.
201. Fourthly, DataCard relies strongly on the evidence of Dr Schäfer in cross-examination, and in particular his acceptance that it would not be obvious for the skilled team to go from the Fargo Pro-L to the arrangement shown in Figure 1 of the Error Loading Patent. Although I have taken it into account, in my judgment this evidence does not get DataCard home, for three reasons. First, as discussed above, Dr Schäfer was barely qualified to give evidence from the perspective of the skilled team. As such, his evidence on this topic carries much less weight than that of Mr Klinefelter. Secondly, the reason given by Dr Schäfer was that the two systems involved a different constructional principle, and therefore a wholesale re-design would be required. I am not persuaded by this for the reasons given above. Thirdly and perhaps most importantly, the question which Dr Schäfer was asked does not meet Eagle's case. Figure 1 of the Error Loading Patent not only includes the supply item, but also the carrier. Even in so far as the supply item is concerned, it includes details not required by amended claim 1. Even though Dr Schäfer gave evidence after Mr Klinefelter, counsel for DataCard made no attempt to cross-examine Dr Schäfer on the case which had been put to Mr Klinefelter as set out above.
202. Finally, counsel for DataCard submitted that account should be taken of Mr Klinefelter's evidence in his reports as well as his evidence in cross-examination. Although I have taken Mr Klinefelter's evidence in his reports into account, this does not assist DataCard for the simple reason that in his reports Mr Klinefelter did not consider the case which was put to him in cross-examination.
203. I therefore conclude that amended claim 1 is obvious over Fargo Pro-L.

Claims 6, 8, 10 and 11

204. Eagle contends that it would be obvious to put the insert in Fargo Pro-L in the take-up cylinder instead of the supply cylinder. This is supported by the evidence of the experts, and counsel for DataCard did not argue to the contrary. Nor did counsel for DataCard seriously dispute that the insert in Fargo Pro-L satisfied the requirement for a cap. As a consequence claims 6, 8 and 10 are also obvious.
205. As for new claim 11, this merely requires the addition of any carrier. It does not require that the carrier be loaded, or even loadable, in the printer. As discussed above,

the use of carriers was well known. In my judgment it follows that it would be obvious to combine the supply item with a carrier.

Claims 12, 13 and 14

206. Eagle's case with regard to claim 12 is that, instead of directly loading the cylinders on spindles in the printer, another obvious alternative would be to load them onto a carrier of the kind used by Datacard in its printers, namely a carrier with spindles and pins.

207. Counsel for Eagle submitted that Mr Klinefelter had accepted that, if the skilled team went down this route, it would also be obvious to change the size of one of the pins so that it was smaller than the other:

“Q. Now, he has four ends of his cylinders, one of which is smaller than the other?”

A. Okay.

Q. I want you to assume he's going down the path that Datacard went down of mounting that onto a carrier with full length spindles.

A. Okay.

Q. What I want to suggest to you is that, in order to keep the obvious error loading advantage of the Fargo ribbons, he is going to have to make sure that he has a way of distinguishing the one end that's different?

A. Okay.

Q. The obvious way to do that is to take those pins at the end of the Datacard carrier and make one of them smaller so it will only fit through the small hole?

A. That would certainly be one way of doing it, yes.

Q. That would be a piece of straightforward design?

A. I agree, yes.”

208. DataCard's arguments against this case are similar to those in respect of claim 1. In particular, DataCard relied on the following points.

209. First, DataCard pointed out that this passage of cross-examination involved Mr Klinefelter being asked to make an assumption. In my view this was a justifiable shortcut on the part of the cross-examiner since Mr Klinefelter has already accepted the principle that it would be obvious to change from the direct loading arrangement of Fargo to another common general knowledge arrangement in the passage quoted in paragraph 197 above.

210. Secondly, DataCard argued that it had not been shown that the Eltron P310 arrangement was common general knowledge. I have accepted that, but Eagle's case on claim 12 does not depend on it being shown that using differently shaped spindles on a carrier was common general knowledge.

211. Thirdly, DataCard argued that Eagle's case amounted to making a mosaic of parts from three different types of printer, namely Fargo Pro-L, Eltron and DataCard. I do not accept this. Eagle's case on claim 1 is based on Fargo Pro-L and the common

general knowledge arrangement of directly loading cylinders onto spindles on a printer, exemplified by Eltron printers. Eagle's case on claim 12 is based on Fargo Pro-L and the common general knowledge arrangement of loading cylinders onto spindles on a carrier, exemplified by DataCard printers. In fact, although Eagle has chosen to argue its case on claim 1 in the former way, Eagle does not need to do so. It could equally well have attacked claim 1 on the latter basis.

212. Fourthly, DataCard said that, if this was an obvious development, why hadn't DataCard taken the step themselves? Although this is a fair point, I am not persuaded by it. Mr Klinefelter's evidence was that it was only in about 2000 that DataCard started to think about addressing the error loading problem, since it was only then that it started to become an issue. The priority date of the Error Loading Patent is only about two years later. Moreover, one knows from the RFID Patent that in the intervening period DataCard was working on RFID.
213. Eagle contends that claims 13 and 14 are obvious for the same reasons as claim 12. This is slight oversimplification, but nevertheless I agree. For the reasons explained above, once it has been decided that the supply item is going to be loaded on spindles, it is obvious to put ribs inside the cylinders. That means claim 13 is obvious. Although claim 14 brings the additional features of claims 1-10, none of those features requires invention for the reasons explained above.

Claim 19

214. By the time one has got this far, there can be nothing inventive about the method of claim 19.

Claim 22

215. Counsel for Eagle submitted that Mr Klinefelter had also accepted that the additional features of claim 22 were obvious:

“Q. Now, of course if we are going to take that carrier, it has to be received into the printer?”

A. Correct.

Q. And there has to be something inside the printer that's going to receive it and support it?

A. Correct.

Q. We saw from the Datacard printers that were around at the time that there were the receiving ends that took hold of each end of the spindles and the pins sat in recesses or slots?

A. Yes. The diagram wasn't very clear, but I assume that what you are saying is correct, yes.

Q. Of course anybody who has seen those Datacard products that were in the market and around, they would have seen how they worked?

A. Correct.

Q. Of course one of the things that you explain in your reports is that it's important that the ribbon tension is maintained evenly?

A. Correct.

- Q. What you don't want is when the printer drives it for the ends of the spindles to wobble around so that you get different tension?
- A. Correct.
- Q. So what you want to make sure is that there is no wobble in your spindle ends, as it were?
- A. Correct.
- Q. The obvious way to do that is to make sure that the slots into which the spindle ends fit are shaped so that there is no play and they cannot wobble around?
- A. Yes. Assuming you are taking the spindle end approach, yes, that would be true”

216. Again, DataCard points to the assumption which Mr Klinefelter was asked to make, but in my judgment it was justified. More importantly, DataCard makes the point that this is an additional step to be taken over and above those already taken. That is a fair point, but in my view it is a small step and one which follows naturally from those previously taken. Accordingly, I conclude that claim 22 is obvious as well.

Obviousness over Brother

Brother

217. Brother was published on 10 July 2001. It discloses an ink ribbon cartridge for a thermal printer. Although it is exemplified by a fax machine, it is not limited to it. The cartridge uses differently shaped spools and cylinder ends to ensure that the ribbon cylinders are loaded correctly. As Brother states at column 2 lines 30-49.

“It is conceivable to form one of the spools in a different shape than the other three spools and form one end of the tube bodies so that it will fit only the odd shaped spool. In addition, it is conceivable to form one of the spool flanges with a diameter greater than the other three spool flanges so that the odd shaped spool flange can only fit into a certain supporting hole formed to the cartridge case. With this conceivable configuration, the ink ribbon will not be mounted erroneously in the cartridge case.”

218. The two ribbon cylinders fit into a cassette using four spools, one to engage in each end of the cylinders. These spools have supporting shafts on the other end that engage with the body of the cassette. One end of one of the supply and take up cylinders is shaped differently from the other three. Each end has grooves, but in one end of the take up cylinder these grooves are arranged differently from the other three ends. Each of the four spools has engagement notches that are designed to engage with the grooves on the cylinders. Three are designed to fit in the three similar ends, and one is designed to fit only in the different end. In addition, the other end of the spools has a support shaft, which is designed to fit into the cassette. The spool with the different notches also has a larger support shaft than the other three, so that it will only fit one way into the cassette (which has three small openings and one larger one). The overall combination of these two features is that it is not possible to load the ribbon incorrectly into the cassette.

219. Accordingly, Brother solves the same problem as the Error Loading Patent in essentially the same way.

Obviousness

220. The arguments in relation to Brother are similar to those in relation to Fargo Pro-L. Accordingly I will deal with them briefly.

221. So far as amended claim 1 is concerned, Eagle's case is that an obvious alternative to the different notches on the spools in Brother would be to drive the cylinders by means of ribs inside and to change the geometry of one end in a different way by making one of the apertures of the cylinders smaller than the others. DataCard's case is that there is no motive to change Brother because it has already solved the problem of error loading and that it would not be obvious to do so because it would require a complete re-design. Again, each side relied on the evidence given by the other side's expert in cross-examination. Again, I conclude that claim 1 is obvious.

222. As far as claims 11-14 are concerned, Eagle contends that any person in the card printer field faced with Brother would have been aware that an alternative way in which they could mount the cylinders would be to use a carrier with spindles as opposed to the use of four spools (i.e. a hub arrangement) as in Brother. Mr Klinefelter was asked whether there would be any technical reason why this obvious and well-known alternative could not be used with the obvious modifications to Brother referred to above, and he accepted that there were not. His only qualification was that it might be difficult with long cylinders as in the Brother fax embodiment. However, he accepted that that problem would not apply with card printers, the standard size ribbons for which are much shorter. Accordingly, these claims are obvious.

223. Claims 19 and 22 are also obvious for similar reasons as in relation to Fargo Pro-L.

Obviousness over Sharp

224. Sharp is a similar proposal to Brother. Counsel for Eagle accepted that Eagle's case in relation to Sharp was virtually identical to its case in relation to Brother. I see no point in considering it separately. It suffices to say that in my judgment it adds nothing to Eagle's case.

The application to amend

Claim 1

225. The only ground on which Eagle objects to the proposed amendments to claim 1 is that Eagle contends that, unless the new features are construed in the manner discussed in paragraph 165 above, they raise clarity issues. This is because the amendments would otherwise introduce into the claim various functional requirements for the performance of the supply item which depend on its interaction with a carrier without specifying any particular type of carrier. Counsel for DataCard did not suggest, however, that the new features should be construed in a manner which required the presence of any particular type of carrier. Accordingly, I conclude that these amendments would be allowable if amended claim 1 were valid.

Claims 11, 13 and 14

226. Eagle has raised a number of objections to the amendments to introduce new claims 11, 13 and 14. An objection raised by Eagle to all three amendments is that it is not permissible to amend a patent to introduce new dependent claims simply to provide additional fall-back positions for the patentee: see *Sara Lee Household & Body Care UK v Johnson Wax Ltd* [2001] FSR 17 and *Case Law of the Boards of Appeal of the European Patent Office* (6th edition) at p. 801. Counsel for DataCard accepted the validity of this point, and, as indicated above, said that DataCard would only pursue these amendments if and so far as necessary to meet Eagle's validity attacks. Even so, it is necessary to consider the allowability of these claims in case it is held that I am right about the validity of claims 1-10 and 12, but not about the validity of the new claims.

Claim 11

227. Eagle objects to claim 11 on two grounds, both of which have also been raised by the Comptroller. The first objection is that it is impermissible because it results in the specification disclosing added matter contrary to section 76(3)(a) of the 1977 Act. Eagle argues that the only disclosure in the Application was of a specific carrier, but claim 11 incorporates the feature of a carrier stripped of the entire context in which it was disclosed and every feature of its construction. Although the application disclosed the specific carrier as being inventive (due to the arrangement of the pins on the spindles), there was no suggestion (and could be no suggestion) that the mere idea of having a carrier was inventive. Accordingly, Eagle says that this amounts to an intermediate generalisation. I agree with this analysis.

228. The second objection is that the addition of claim 11 extends the protection conferred by the Error Loading Patent contrary to section 76(3)(b) of the 1977 Act. This is because new claim 11 covers the sale of the supply item of claim 1 and any carrier. It can therefore be infringed pursuant to section 60(2) by the sale of any carrier, even if the carrier itself would not infringe claim 12. Counsel for Eagle submitted that the introduction of the new claim would therefore extend the protection conferred by the Error Loading Patent, and thus potentially make third parties infringers retrospectively.

229. Counsel for DataCard did not dispute that new claim 11 could be infringed pursuant to section 60(2) by the supply of carriers which would not have infringed the Error Loading Patent as granted. He nevertheless submitted that claim 11 did not extend the protection conferred by the Error Loading Patent because it was narrower in scope than claims 1-10 on which it was dependent.

230. Counsel for DataCard pointed out that section 76(3)(a) corresponds to Article 123(3) of the European Patent Convention, which provides that a European patent "may not be amended in such a way as to extend the protection it confers". Article 69(1) EPC provides that "the extent of the protection conferred by a European patent ... shall be determined by the claims". Article 64(1) EPC provides that "a European patent shall ... confer on its proprietor in each Contracting State in respect of which it is granted, the same rights as would be conferred by a national patent granted in that State". Counsel for DataCard submitted that "extent of protection" was purely a question of the scope of the claims, and that it was a different concept to "the rights ... conferred"

under national patent law, such as under section 60(2) of the 1977 Act. In support of this submission, he relied upon statements to that effect by the Enlarged Board of Appeal in Case G02/88 *MOBIL/friction reducing additive* [1990] EPOR 73, in particular at 3.3:

“... determination of the ‘extent of the protection conferred’ by a patent under Article 69(1) EPC is a determination of what is protected, in terms of category plus technical features; whereas the ‘rights conferred’ by a patent are a matter solely for the designated Contracting States, and are related to how such subject-matter is protected. It follows that when deciding upon the admissibility of any amendment to the claims of a patent which is proposed in opposition proceedings (whether or not such amendment involves a change of category of claim), what has to be considered and decided is whether the subject-matter which is protected by the claims, as defined by their categories in combination with their technical features, is extended. It is not necessary to consider the national laws of the Contracting States in relation to infringement when making such a decision, however.”

231. Counsel for Eagle submitted that the decision in *Mobil* should be distinguished from the present case on two grounds. First, the Enlarged Board did not have to consider infringement. Secondly, the Enlarged Board was concerned with a case in which the nature of the amendment was merely to change the category of the claim. In my judgment neither of these grounds provides an adequate basis for distinguishing *Mobil*. I therefore accept counsel for DataCard’s argument and conclude that new claim 11 would not extend the protection conferred by the Error Loading Patent within the meaning of section 76(3)(b).
232. Counsel for Eagle submitted in the alternative that the amendment to introduce claim 11 should be disallowed in the exercise of the Court’s discretion since, even if it did not extend the protection conferred by the Error Loading Patent, it would extend the scope of the rights conferred on the proprietor by virtue of section 60(2). In support of this submission, he pointed out that, although the amendment to section 75 of the 1977 Act by the Patents Act 2004 to introduce subsection (5) has curtailed the extent of the court’s discretion with regard to amendment applications, it has not removed it altogether: see *Zipher Ltd v Markem Systems Ltd* [2008] EWHC 1379 (Pat), [2009] FSR 1 at [197]-[220].
233. I accept this submission. The policy which underlies Article 123(3) EPC and section 76(3)(b) is that third parties should not be exposed to a new risk of infringing, and in particular the risk of their past acts being retrospectively turned into infringements, by an amendment of the patent after grant. To allow new claim 11 to be introduced into the Error Loading Patent would defeat that policy. Accordingly, I decline to permit the amendment in the exercise of my discretion.

Claim 13

234. Eagle objects to new claim 13 on the same grounds as claim 11, as does the Comptroller. So far as added matter is concerned, claim 13 claims a carrier in

accordance with claim 12, but this time with a generalised supply item. The supply item only has to comprise a supply and a take-up cylinder loaded onto the spindles. The supply cylinder (but oddly not the take-up cylinder) is required to have ribs to prevent rotation with respect to the supply spindle. Eagle argues that this is another intermediate generalisation of the disclosure of the application. It takes the features of a supply item having supply and take-up cylinders, with ribs on the supply cylinder, and divorces it from the context of the embodiment in which it was disclosed. Again, I agree with this analysis.

235. As to extension of protection, alternatively exercise of the court's discretion, Eagle argues that the result of introducing new claim 13 would be that the sale of any supply item with ribs on the inside of the supply cylinder would infringe under s60(2) after amendment, whereas it would not before. Again, I conclude that this does not amount to extension of protection, but does mean that I should decline to permit the amendment in the exercise of my discretion.

Claim 14

236. Eagle did not raise any objection to claim 14 other than the general point considered in paragraph 226 above. Accordingly, I conclude that this amendment would be permissible if it were necessary and claim 14 was valid.

THE TRADE MARK CLAIMS

237. DataCard's trade mark claims arise out of Eagle's use of the trade mark DATACARD (i) on its website (including in emails generated by the website), (ii) on labels applied to Plus-Ribbon packaging and (iii) on the websites which Eagle manages for its resellers. The way in which Eagle has used the trade mark has changed over time, and thus it is necessary to consider DataCard's complaints chronologically. On the other hand, it is common ground that it is not necessary to consider the resellers' websites separately, since there is no material difference between them and Eagle's own website for these purposes. Eagle denies that it has committed any infringing acts, and in the alternative asserts by way of defence that it is necessary for it to use the trade mark to indicate that its ribbons are compatible with DataCard's printers. It is common ground, however, that, if the uses complained of amount to an infringement, then Eagle is jointly liable for uses made by its resellers.

The witnesses

238. I only heard from two witnesses with regard to the trade mark claims, one for DataCard and one for Eagle.
239. DataCard's witness was James Runcie. He has been employed by DataCard since July 2003 and has had responsibility for its European subsidiaries since then. Since April 2008 he has been Vice-President for Europe, the Middle East and Africa. I regret to say that Mr Runcie did not impress me as a witness. He made a number of contentious assertions in his witness statements, in particular to the effect that Eagle that was not genuinely trying to sell genuine DataCard ribbons but rather was engaging in "bait-and-switch" tactics, which he was unable to support in his oral evidence, yet was not prepared to withdraw.

240. Eagle's witness was Christopher Rayner. He is Eagle's Managing Director. He founded Eagle together with others in 1999. He was a straightforward and candid witness.

The Trade Marks

241. 698 consists of the word DATACARD registered as of 14 September 1989 in Class 7 in respect of the following goods:

“Apparatus for embossing metal plates; manual and electric imprinters for printing information from an embossed card; printing apparatus; parts for manual and electric imprinters; rollers and platens; apparatus for inserting plastic cards into customer transmittal forms; all relating to data encoded cards; all included in Class 7.”

242. 699 consists of the word DATACARD registered as of 14 September 1989 in Class 9 in respect of the following goods:

“Apparatus for encoding plastic cards; apparatus for verifying (checking) cards containing magnetic strips; microprocessors for control purposes; electronic input apparatus and visual display units, all for automatically encoding and processing plastic cards or card transmittal forms for mailing; point of sale transaction terminals; printers for use with computers; computer terminals; keyboards; slip printers; roll printers, continuous feed printers, parts therefor; computer programs; personal identification number transaction pads; all relating to data encoded cards; all included in Class 9.”

The key provisions of the Directive

243. European Parliament and Council Directive 2008/95/EC of 22 October 2008 to approximate the laws of the Member States relating to trade marks (codified version) (“the Directive”) includes the following provisions:

“Article 5

Rights conferred by a trade mark

1. The registered trade mark shall confer on the proprietor exclusive rights therein. The proprietor shall be entitled to prevent all third parties not having his consent from using in the course of trade:
 - (a) any sign which is identical with the trade mark in relation to goods or services which are identical with those for which the trade mark is registered;
 - (b) any sign where, because of its identity with, or similarity to, the trade mark and the identity or similarity of goods or services covered by the trade mark and the sign, there exists a likelihood of confusion on the

part of the public, which includes the likelihood of association between the sign and the trade mark

2. Any Member State may also provide that the proprietor shall be entitled to prevent all third parties not having his consent from using in the course of trade any sign which is identical with, or similar to, the trade mark in relation to goods or services which are not similar to those for which the trade mark is registered, where the latter has a reputation in the Member State and where use of that sign without due cause takes unfair advantage of, or is detrimental to, the distinctive character or the repute of the trade mark.
3. The following, *inter alia*, may be prohibited under paragraphs 1 and 2:
...
 - (b) offering the goods, or putting them on the market or stocking them for these purposes under that sign, or offering or supplying services thereunder;
 - (c) importing or exporting the goods under the sign;
 - (d) using the sign on business papers and in advertising.

...

Article 12

Limitation of the effects of a Community trade mark

1. A Community trade mark shall not entitle the proprietor to prohibit a third party from using in the course of trade:

...

- (c) the trade mark where it is necessary to indicate the intended purpose of a product or service, in particular as accessories or spare parts;

provided he uses them in accordance with honest practices in industrial or commercial matters”

244. These provisions are implemented in the UK by sections 10(1)-(4) and 11(2)(c) of the Trade Marks Act 1994. Corresponding provisions are contained in Articles 9(1),(2) and 12(c) of Council Regulation 207/2009/EC of 26 February 2009 (codified version) on the Community trade mark (“the Regulation”).

Infringement under Article 5(1)(a): the law

245. The case law of the Court of Justice of the European Union establishes that the proprietor of a registered trade mark can only succeed in a claim under Article 5(1)(a)

of the Directive if six conditions are satisfied: (i) there must be use of a sign by a third party; (ii) the use must be in the course of trade; (iii) it must be without the consent of the proprietor of the trade mark; (iv) it must be of a sign which is identical to the trade mark; (v) it must be in relation to goods or services which are identical to those for which the trade mark is registered; and (vi) it must affect or be liable to affect the functions of the trade mark: see in particular Case C-206/01 *Arsenal Football plc v Reed* [2002] ECR I-10273 at [51], Case C-245/02 *Anheuser-Busch Inc v Budejovicky Budvar np* [2004] I-10989 at [59], Case C-48/05 *Adam Opel AG v Autec AG* [2007] ECR I-1017 at [18]-[22] and Case C-17/06 *Céline SARL v Céline SA* [2007] ECR I-7041 at [16].

246. In the present case there is no dispute that the first, second and third conditions are satisfied. The issues concern the fourth, fifth and sixth conditions.

The fourth condition

247. So far as the fourth condition is concerned, in Case C-291/00 *LTJ Diffusion SA v Sadas Vertbaudet SA* [2003] ECR I-2799 the Court of Justice ruled that:

“a sign is identical with the trade mark where it reproduces, without any modification or addition, all the elements constituting the trade mark or where, viewed as a whole, it contains differences so insignificant that they may go unnoticed by an average consumer.”

248. In *Reed Executive plc v Reed Business Information Ltd* [2004] EWCA Civ 159, [2004] RPC 40 Jacob LJ, with whom Auld and Rix LJ agreed, considered the Court of Justice’s guidance in *Diffusion* in detail at [22]-[32]. His conclusion was that, as he put it at [27]:

“... there is no reason to suppose that the Court meant to soften the edges of ‘strict identity’ very far.”

On the facts of the case, the Court of Appeal concluded that the sign “Reed Business Information” was not identical to the trade mark REED.

249. Similarly, in *Compass Publishing BV v Compass Logistics Ltd* [2004] EWHC 520 (Ch), [2004] RPC 41 Laddie J held, applying the guidance of the Court of Justice in *Diffusion* and the Court of Appeal in *Reed*, that the sign “Compass Logistics” was not identical to the trade mark COMPASS.

The fifth condition

250. As to the fifth condition, use of a sign “in relation to” goods or services means use “for the purpose of distinguishing” the goods or services in question, that is to say, as a trade mark as such: see Case C-63/97 *Bayerische Motorenwerke AG v Deenik* [1999] ECR I-905 at [38], Case C-245/02 *Anheuser-Busch Inc v Budejovicky Budvar np* [2004] I-10989 at [64] and Case C-17/06 *Céline SARL v Céline SA* [2007] ECR I-7041 at [20]; and cf. Article 5(5) and Case C-23/01 *Robelco NV v Robeco Groep NV* [2002] ECR I-10913 at [28]-[34].

251. Among the questions which I referred to the Court of Justice in Case C-324/09 *L'Oréal SA v eBay International AG* were two concerning the fifth condition:

“(6) Where clicking on the sponsored link referred to in question 5 above leads the user directly to advertisements or offers for sale of goods identical to those for which the trade mark is registered under the sign placed on the website by other parties, some of which infringe the trade mark and some which do not infringe the trade mark by virtue of the differing statuses of the respective goods, does that constitute use of the sign by the operator of the online marketplace ‘in relation to’ the infringing goods within the meaning of 5(1)(a) of [Directive 89/104] and Article 9(1)(a) of [Regulation No 40/94]?”

...

(8) Does it make any difference to the answers to questions 5 to 7 above if the use complained of by the trade mark proprietor consists of the display of the sign on the web site of the operator of the online marketplace itself rather than in a sponsored link?”

252. At the time of writing this judgment, the Court of Justice has yet to rule upon these questions. In his Opinion, however, Advocate General Jääskinen has recommended that the Court of Justice answer these questions as follows:

“(6) Where clicking on the sponsored link referred to in point 5 above leads the user directly to advertisements or offers for sale of goods identical to those for which the trade mark is registered under the sign placed on the website by other parties, some of which infringe the trade mark and some which do not infringe the trade mark by virtue of the differing statuses of the respective goods, that fact constitutes use of the sign by the operator of the electronic marketplace ‘in relation to’ the infringing goods within the meaning of Article 5(1)(a) of Directive 89/104 and Article 9(1)(a) of Regulation No 40/94, but it does not have an adverse effect on the functions of the trade mark provided that a reasonable average consumer understands on the basis of information included in the sponsored link that the operator of the electronic marketplace stores in his system advertisements or offers for sale of third parties.

...

(8) If the use complained of by the trade mark proprietor consists of the display of the sign on the website of the operator of the electronic marketplace itself rather than in a sponsored link on the website of a search engine operator, the sign is not used by the operator of the electronic marketplace ‘in relation to’ the

infringing goods within the meaning of Article 5(1)(a) of Directive 89/104 and Article 9(1)(a) of Regulation No 40/94.”

253. The reasoning which lies behind these conclusions is contained in the following paragraphs of the Opinion (footnotes omitted):

“99. To my mind the fifth condition refers to the use of a sign for the purpose of identification of goods or services or distinguishing between goods or services (originating from different commercial origins). As the High Court submits, use of a sign in relation to goods or services means use for the purpose of distinguishing the goods and services in question, that is to say, as a trade mark as such.

100. This means that a trade mark is used in relation to goods both when it is used by the trade mark proprietor for the purposes of distinguishing his goods from a third party’s goods and when it is used by a third party to distinguish his goods from the trade mark proprietor’s goods. Moreover, a third party can use the trade mark to distinguish between the goods of the trade mark proprietor and other goods that may or may not be his own goods. If this analysis is correct, a party who is in the position of an intermediary or a marketplace operator also uses a sign ‘in relation to goods’ if he uses a sign which is identical with a trademark for the purpose of distinguishing between goods that are available through the use of his services and those that are not.

101. I recall that the Court concluded in *Google France and Google* that in most cases an internet user entering the name of a trade mark as a search term is looking for information or offers on the goods or services covered by that trade mark. When advertising links to sites offering goods or services of competitors of the proprietor of that mark are displayed beside or above of the natural results of the search, the internet user may perceive those advertising links as offering an alternative to the goods or services of the trade mark proprietor. Such a situation constitutes a use of that sign in relation to the goods or services of that competitor.

102. In my opinion that analysis is applicable also in situations where the relevant advertising links are not those of direct competitors of the proprietor of the trade mark offering alternative goods but those of electronic marketplaces offering an alternative source of the same goods covered by the trade mark with respect to the distribution network of the trade mark proprietor.

....

119. However, for the sake of clarity I should add that if the use complained of by the trade mark proprietor consists of the display of the sign on the website of an operator of an electronic marketplace itself rather than a sponsored link of a search engine we are not speaking of use of the trademark in relation to goods by the marketplace operator, but by the users of the marketplace. The operator's activity consists of storing and displaying listings that the users upload to its system and of running a system for facilitating the conclusions of deals. It is no more using trade marks than a newspaper publishing classified ads mentioning trademarks where the identity of the seller is not revealed in the ad but must be requested from the newspaper. Hence, even if the listing of trade mark protected goods by users of an electronic marketplace may have an adverse effect on the origin, quality or investment function of a trademark, those effects cannot be attributed to the marketplace operator unless national legal rules and the principle of secondary liability for trade mark infringements apply.
120. It should be further noted that the activity of eBay consisting of search and display functions applicable to the listing is technically similar to that of internet search engines like Google (without the 'add-on' of the paid referencing service) though the business model is different. In eBay's servers the searches relate to the listings stored by the users of the marketplace, in the case of internet search engines to those internet pages they have stored in their servers. Therefore, as regards these functions, the use and display of third party trade marks is not use of a sign in the sense of Article 5(1) of Directive 89/104 for the reasons set out in the judgment in *Google France and Google*. The marketplace operator also allows its clients to use signs which are identical with trade marks without using those signs itself."

The sixth condition

254. I considered the sixth condition in some detail in my judgment in *L'Oréal v eBay* [2009] EWHC 1094 (Ch), [2009] RPC 21 at [288] to [306]. Having concluded that Article 5(1)(a) covered use of a trade mark by a third party in relation to the trade mark proprietor's goods, I observed at [300]:

"Even assuming that I am right about use in relation to the trade mark proprietor's goods, however, I consider that the current state of the ECJ's jurisprudence is unclear with regard to at least three other inter-related questions. First, it is unclear precisely what the sixth condition adds to the fifth condition. Secondly, if the sixth condition does add something, it is unclear whether damage to functions other than the origin function can be relied upon to support a claim under Article 5(1)(a), and if so in what circumstances. Thirdly, if damage to functions other than the origin function can be relied on, it is

unclear what the relation is between Article 5(1)(a) and Article 5(2) in double identity (identical sign and identical goods) cases. I shall elaborate briefly on each of these questions.”

255. In relation to the first of these questions, I observed at [302]:

“It is difficult to see either from [*Arsenal*] or from the ECJ’s subsequent case law what the sixth condition adds to the fifth condition. In both *Arsenal* at [51]-[60] and *Anheuser-Busch* at [59]-[60] the Court held that the sixth condition is satisfied where the use of the sign is such as to create the impression that there is a material link in the course of trade between the goods concerned and the trade mark proprietor i.e. the sign functions as a trade mark. In *Céline* at [19]-[23] the Court held that the fifth condition is satisfied where essentially the same criterion is fulfilled. Furthermore, the Court seems to treat the sixth condition as being satisfied in cases where the fifth condition is satisfied and as being not satisfied in cases where the fifth condition is not satisfied. *Arsenal* was an example of a case where the Court held that the fifth condition was satisfied (see paragraph [53] and [56]), and accordingly the sixth condition was satisfied (see paragraph [60]). It distinguished Case C-2/00 *Hölterhoff v Freiesleben* [2002] ECR I-4187 as a case where the fifth condition was not satisfied (see paragraph [54]), and therefore the sixth condition was not satisfied. Similarly, in *Adam Opel* the Court seems to have considered that the sixth condition was not satisfied because the fifth condition was not satisfied (see paragraphs [21]-[24]).”

256. In relation to the second question, I observed at [304]:

“As to the second question, the jurisprudence of the ECJ cited in paragraphs 290, 291 and 299 above would seem to indicate that damage to functions other than the origin function, and in particular damage to the reputation of the trade mark, can be relied on.”

257. Shortly afterwards, the Court of Justice delivered its ruling in Case C-487/07 *L’Oréal SA v Bellure NV* [2009] ECR I-5185. In its judgment the Court said:

“58. The Court has already held that the exclusive right under Article 5(1)(a) of Directive 89/104 was conferred in order to enable the trade mark proprietor to protect his specific interests as proprietor, that is, to ensure that the trade mark can fulfil its functions and that, therefore, the exercise of that right must be reserved to cases in which a third party’s use of the sign affects or is liable to affect the functions of the trade mark (Case C-206/01 *Arsenal Football Club* [2002] ECR I-10273, paragraph 51; Case C-245/02 *Anheuser-Busch* [2004] ECR I-10989, paragraph 59; and Case C-48/05 *Adam Opel* [2007] ECR I-1017, paragraph 21). These functions include not only the

essential function of the trade mark, which is to guarantee to consumers the origin of the goods or services, but also its other functions, in particular that of guaranteeing the quality of the goods or services in question and those of communication, investment or advertising.

59. The protection conferred by Article 5(1)(a) of Directive 89/104 is thus broader than that provided by Article 5(1)(b), the application of which requires that there be a likelihood of confusion and accordingly the possibility that the essential function of the mark may be affected (see, to that effect, *Davidoff*, paragraph 28, and *O2 Holdings and O2 (UK)*, paragraph 57). By virtue of the 10th recital in the preamble to Directive 89/104, the protection afforded by the registered trade mark is absolute in the case of identity between the mark and the sign and also between the goods or services, whereas, in case of similarity between the mark and the sign and between the goods or services, the likelihood of confusion constitutes the specific condition for such protection.
60. It is apparent from the case-law cited in paragraph 58 of this judgment that the proprietor of the mark cannot oppose the use of a sign identical with the mark on the basis of Article 5(1)(a) of Directive 89/104 if that use is not liable to cause detriment to any of the functions of that mark (see also *Arsenal Football Club*, paragraph 54, and *Adam Opel*, paragraph 22).
61. Thus, the Court has already held that certain uses for purely descriptive purposes are excluded from the scope of application of Article 5(1) of Directive 89/104, because they do not affect any of the interests which that provision is intended to protect and accordingly do not constitute ‘use’ within the meaning of that provision (see, to that effect, Case C-2/00 *Hölterhoff* [2002] ECR I-4187, paragraph 16).
62. It must, however, be made clear that the situation described in the main proceedings is fundamentally different from that which gave rise to the judgment in *Hölterhoff*, in that the word marks belonging to L’Oréal and Others are used in the comparison lists distributed by Malaika and Starion not for purely descriptive purposes, but for the purpose of advertising.
63. It is for the referring court to determine whether, in a situation such as that which arises in the main proceedings, the use which is made of the marks belonging to L’Oréal and Others is liable to affect one of the functions of those marks, such as, in particular, their functions of communication, investment or advertising.
64. Furthermore, in so far as that court has held that those marks have a reputation, their use in the comparison lists may also be

prevented under Article 5(2) of Directive 89/104, the applicability of which does not necessarily require, as was held in paragraph 50 of this judgment, that there be a likelihood of detriment to the mark or its proprietor, provided that the third party takes unfair advantage of the use of that mark”

258. This passage provides a clear answer to the second question, and confirms that damage to functions of the trade mark other than the origin function can be relied upon by the trade mark proprietor under Article 5(1)(a). It sheds little light on the third question, however. It may be that further light will be shed on that question by the Court of Justice’s answer to question 3 in the pending reference in Case C-323/09 *Interflora, Inc v Marks & Spencer plc*: see *Interflora (No 2)* [2010] EWHC 925 (Ch) at [17]-[22].
259. As for the first question, I consider that this passage, in particular [61]-[62], tends to support the view that the sixth condition is satisfied where the sign is used as a trade mark, including referentially as part of a comparison between the third party’s goods and the trade mark proprietor’s goods, rather than purely descriptively: see the discussion in the judgment of Jacob LJ when *L’Oréal v Bellure* subsequently returned to the Court of Appeal [2010] EWCA Civ 535, [2010] RPC 23 at [22]-[32].
260. Regrettably, however, the clarity on this point that appeared to be emerging in *L’Oréal v Bellure* has since receded again. In Joined Cases C-236/08 to C-238/08 *Google France SARL v Louis Vuitton Malletier SA* [2010] ECR I-0000 the Court of Justice held at [50]-[74] that an advertiser who used a trade mark as a keyword as part of Google’s AdWords service thereby used the trade mark in relation to the advertised goods or services. It then considered the sixth condition and considered whether there was an adverse effect on either the origin function or the advertising function of the trade mark. In relation to the origin function it held as follows:
- “82. The essential function of a trade mark is to guarantee the identity of the origin of the marked goods or service to the consumer or end user by enabling him to distinguish the goods or service from others which have another origin (see, to that effect, Case C-39/97 *Canon* [1998] ECR I-5507, paragraph 28, and Case C-120/04 *Medion* [2005] ECR I-8551, paragraph 23).
83. The question whether that function of the trade mark is adversely affected when internet users are shown, on the basis of a keyword identical with a mark, a third party’s ad, such as that of a competitor of the proprietor of that mark, depends in particular on the manner in which that ad is presented.
84. The function of indicating the origin of the mark is adversely affected if the ad does not enable normally informed and reasonably attentive internet users, or enables them only with difficulty, to ascertain whether the goods or services referred to by the ad originate from the proprietor of the trade mark or an undertaking economically connected to it or, on the contrary, originate from a third party (see, to that effect, *Céline*, paragraph 27 and the case-law cited).

85. In such a situation, which is, moreover, characterised by the fact that the ad in question appears immediately after entry of the trade mark as a search term by the internet user concerned and is displayed at a point when the trade mark is, in its capacity as a search term, also displayed on the screen, the internet user may err as to the origin of the goods or services in question. In those circumstances, the use by the third party of the sign identical with the mark as a keyword triggering the display of that ad is liable to create the impression that there is a material link in the course of trade between the goods or services in question and the proprietor of the trade mark (see, by way of analogy, *Arsenal Football Club*, paragraph 56, and Case C-245/02 *Anheuser-Busch* [2004] ECR I-10989, paragraph 60).
86. Still with regard to adverse effect on the function of indicating origin, it is worthwhile noting that the need for transparency in the display of advertisements on the internet is emphasised in the European Union legislation on electronic commerce. Having regard to the interests of fair trading and consumer protection, referred to in recital 29 in the preamble to Directive 2000/31, Article 6 of that directive lays down the rule that the natural or legal person on whose behalf a commercial communication which is part of an information society service is made must be clearly identifiable.
87. Although it thus proves to be the case that advertisers on the internet can, as appropriate, be made liable under rules governing other areas of law, such as the rules on unfair competition, the fact nonetheless remains that the allegedly unlawful use on the internet of signs identical with, or similar to, trade marks lends itself to examination from the perspective of trade-mark law. Having regard to the essential function of a trade mark, which, in the area of electronic commerce, consists in particular in enabling internet users browsing the ads displayed in response to a search relating to a specific trade mark to distinguish the goods or services of the proprietor of that mark from those which have a different origin, that proprietor must be entitled to prohibit the display of third-party ads which internet users may erroneously perceive as emanating from that proprietor.
88. It is for the national court to assess, on a case-by-case basis, whether the facts of the dispute before it indicate adverse effects, or a risk thereof, on the function of indicating origin as described in paragraph 84 of the present judgment.
89. In the case where a third party's ad suggests that there is an economic link between that third party and the proprietor of the trade mark, the conclusion must be that there is an adverse effect on the function of indicating origin.

90. In the case where the ad, while not suggesting the existence of an economic link, is vague to such an extent on the origin of the goods or services at issue that normally informed and reasonably attentive internet users are unable to determine, on the basis of the advertising link and the commercial message attached thereto, whether the advertiser is a third party vis-à-vis the proprietor of the trade mark or, on the contrary, economically linked to that proprietor, the conclusion must also be that there is an adverse effect on that function of the trade mark.
261. At first sight the Court of Justice's reasoning appears broadly consistent with the Court's treatment of this question in *Arsenal*, *Anheuser-Busch*, *Céline*, Case C-48/05 *Adam Opel AG v Autec AG* [2007] ECR I-1017 and *L'Oréal v Bellure*. On closer examination, however, the Court's approach appears to have shifted in two respects.
262. First, unlike in *Arsenal* (see the passage at [54]-[60] quoted below) and *L'Oréal v Bellure* (see the passage at [61]-[62] quoted above), the Court does not draw a distinction between use which is liable to affect the origin function on the one hand and "purely descriptive" use on the other hand. Nor, unlike in *Anheuser-Busch* (see the passage at [59]-[64] quoted below), does it draw a contrast between use which is liable to affect the origin function on the one hand and use "for purposes other than to distinguish the goods concerned" on the other hand. Nor, unlike in *Céline* (at [27]), does the Court say that use of a sign is liable adversely to affect the origin function if "consumers are liable to interpret it as designating the origin of the goods or services in question". Thus the Court appears no longer to be saying that it is enough that the sign is used as a trade mark in relation to the goods or services in question.
263. Secondly, and perhaps more importantly, the Court introduces a new test in [84], which despite the reference to *Céline* is not to be found in that case. The new test is that the origin function of the trade mark is adversely affected if the use of the sign considered in context does not enable average consumers, or enables them only with difficulty, to ascertain whether the goods or services referred to under the sign originate from the proprietor of the trade mark or an undertaking economically connected to it, or from a third party. It appears from [84]-[85] and [89]-[90] that this is a test of likelihood of confusion, but with a reversed onus i.e. the onus lies upon the third party to show that the use of the sign in context is sufficiently clear that there is no possibility of confusion on the part of the average consumer as to the origin of the advertised goods or services.
264. It will be appreciated that, in stating the test in this way, I have generalised it from the specific form stated by the Court, which is only applicable to keyword advertising on the internet. It is difficult to see, however, why the test for adverse effect on the origin function should be different in that situation to the situations in issue in cases like *Arsenal* and *L'Oréal v Bellure*. Nor does the Court say that the test is different in that situation.
265. *Google France* was a case about the use of signs identical to the trade marks in issue i.e. an Article 5(1)(a) case. Subsequently, the Court of Justice considered the situation where the signs used as keywords were similar to the trade marks rather than identical, i.e. an Article 5(1)(b) case, in Case C-278/08 *Die BergSpechte Outdoor*

Reisen under Alpenschule Edi Koblmüller GmbH v Guni [2010] ECR I-0000. There it held:

- “38. The risk that the public might believe that the goods or services in question come from the same undertaking or, as the case may be, from economically-linked undertakings, constitutes a likelihood of confusion (see, inter alia, Case C-342/97 *Lloyd Schuhfabrik Meyer* [1999] ECR I-3819, paragraph 17; Case C-120/04 *Medion* [2005] ECR I-8551, paragraph 26; and Case C-102/07 *adidas and adidas Benelux* [2008] ECR I-2439, paragraph 28).
39. It follows that, should the rule set out in Article 5(1)(b) of Directive 89/104 be applicable to the dispute in the main proceedings, it will be for the national court to hold whether there is a likelihood of confusion when internet users are shown, on the basis of a keyword similar to a mark, a third party’s ad which does not enable normally informed and reasonably attentive internet users, or enable them only with difficulty, to ascertain whether the goods or services referred to by the ad originate from the proprietor of the trade mark or an undertaking economically connected to it or, on the contrary, originate from a third party.
40. The points made in paragraph 36 of this judgment [which summarised [89]-[90] of *Google France*] are applicable by analogy.”
266. At first blush, this passage appears to indicate that precisely the same test should be applied to determine both whether the origin function of the trade mark is liable to be affected under Article 5(1)(a) and whether there is a likelihood of confusion under Article 5(1)(b). I cannot believe that that is what the Court of Justice meant to say, however. Article 5(1)(a) contains no requirement for a likelihood of confusion, whereas Article 5(1)(b) does. The reason why Article 5(1)(a) contains no requirement for a likelihood of confusion is that a likelihood of confusion is presumed where a sign identical to the trade mark is used in relation to goods or services identical to those for which the trade mark is registered, as is required by Article 16(1) of the Agreement on Trade-related Aspects of Intellectual Property Rights. That is what recital (11) of the Directive means when it says that “the protection afforded by the registered trade mark ... should be absolute in the case of identity between the mark and the sign and the goods or services”. (In another sense, the protection is not absolute, of course, because it is subject to the defences under Articles 6 and 7 of the Directive.) Furthermore, in the case of Article 5(1)(b) it is clear from the Court’s earlier jurisprudence that the onus lies upon the trade mark proprietor to establish the presence of a likelihood of confusion, not upon the third party to establish the absence of a likelihood of confusion.
267. Accordingly, it seems to me that the correct reading of [39] must be that the words “it will be for the national court to hold whether there is a likelihood of confusion when” mean that the trade mark proprietor must establish a positive likelihood of confusion in order to succeed under Article 5(1)(b), and not merely the presence of

circumstances which would suffice for the purposes of establishing an effect on the origin function under Article 5(1)(a).

268. Even if that is right, *BergSpechte* appears to confirm that the test which must be applied in order to determine whether the use of the sign complained of is liable to affect the origin function of the trade mark is a reverse likelihood of confusion test as discussed in paragraph 263 above. Thus the combined effect of the judgments in *Google France* and *BergSpechte* is to narrow the distinction between Article 5(1)(a) and Article 5(1)(b) even if they do not eliminate it.
269. Finally, I note that in Case C-558/08 *Portakabin Ltd v Primakabin BV* [2010] ECR I-0000 the Court of Justice reiterated what it had said in *Google France* and *BergSpechte*: see [34]-[35] and [52]-[53]. Although I am not convinced that the reasoning in these three cases is consistent with the Court's earlier jurisprudence, since they are the Court's most recent pronouncements on this point, it is my duty to apply these judgments as best I can.
270. So far as the advertising function is concerned, the Court of Justice held in *Google France* as follows:
- “91. Since the course of trade provides a varied offer of goods and services, the proprietor of a trade mark may have not only the objective of indicating, by means of that mark, the origin of its goods or services, but also that of using its mark for advertising purposes designed to inform and persuade consumers.
92. Accordingly, the proprietor of a trade mark is entitled to prohibit a third party from using, without the proprietor's consent, a sign identical with its trade mark in relation to goods or services which are identical with those for which that trade mark is registered, in the case where that use adversely affects the proprietor's use of its mark as a factor in sales promotion or as an instrument of commercial strategy.
93. With regard to the use by internet advertisers of a sign identical with another person's trade mark as a keyword for the purposes of displaying advertising messages, it is clear that that use is liable to have certain repercussions on the advertising use of that mark by its proprietor and on the latter's commercial strategy.
94. Having regard to the important position which internet advertising occupies in trade and commerce, it is plausible that the proprietor of a trade mark may register its own trade mark as a keyword with a referencing service provider in order to have an ad appear under the heading 'sponsored links'. Where that is the case, the proprietor of the mark must, as necessary, agree to pay a higher price per click than certain other economic operators if it wishes to ensure that its ad appears before those of those operators which have also selected its mark as a keyword. Furthermore, even if the proprietor of the

mark is prepared to pay a higher price per click than that offered by third parties which have also selected that trade mark, the proprietor cannot be certain that its ad will appear before those of those third parties, given that other factors are also taken into account in determining the order in which the ads are displayed.

95. Nevertheless, those repercussions of use by third parties of a sign identical with the trade mark do not of themselves constitute an adverse effect on the advertising function of the trade mark.
 96. In accordance with the Cour de cassation's own findings, the situation covered in the questions referred is that of the display of advertising links following the entry by internet users of a search term corresponding to the trade mark selected as a keyword. It is also common ground, in these cases, that those advertising links are displayed beside or above the list of the natural results of the search. Finally, it is not in dispute that the order in which the natural results are set out results from the relevance of the respective sites to the search term entered by the internet user and that the search engine operator does not claim any remuneration for displaying those results.
 97. It follows from those factors that, when internet users enter the name of a trade mark as a search term, the home and advertising page of the proprietor of that mark will appear in the list of the natural results, usually in one of the highest positions on that list. That display, which is, moreover, free of charge, means that the visibility to internet users of the goods or services of the proprietor of the trade mark is guaranteed, irrespective of whether or not that proprietor is successful in also securing the display, in one of the highest positions, of an ad under the heading 'sponsored links'.
 98. Having regard to those facts, it must be concluded that use of a sign identical with another person's trade mark in a referencing service such as that at issue in the cases in the main proceedings is not liable to have an adverse effect on the advertising function of the trade mark."
271. The Court's reasoning in this passage has been trenchantly criticised by some commentators: see in particular Ott and Schubert, "It's the Ad text, stupid': Cryptic answers won't establish legal certainty for online advertisers" [2011] JIPLP 25. Many of these criticisms are directed to the accuracy of the factual statements made by the Court at [96]-[97]. Even assuming that those statements are accurate, however, it is not immediately clear why the Court considered that the advertising function was at least potentially affected in *L'Oréal v Bellure*, but not in *Google France*.
272. In trying to understand why this is so, it seems to me that the key point is that the advertising function of a trade mark is its function of conveying a particular *image* to

the average consumer of the goods or services in question. The case law of the Court of Justice suggests that the advertising function is most likely to be affected when the trade mark has been used by the trade mark proprietor in relation to prestigious goods that have a luxurious image and the third party's use of the signs complained of either takes unfair advantage of that image or adversely affects that image by associating it with down-market goods, marketing methods or advertising: see Case C-337/95 *Parfums Christian Dior SA v Evora BV* [1997] ECR I-6013 at [39]-[48], Case C-59/08 *Copad SA v Christian Dior Couture SA* [2009] ECR I-3421 at [52]-[59] and *L'Oréal v Bellure* at [38]-[50] and [62]-[63]. On the other hand, it appears from *Google France* that the mere fact that use of the signs complained of in advertising competitive goods or services causes the trade mark proprietor's advertising costs to be increased is not enough to affect the advertising function. As I have already observed, it is unclear where this leaves the relationship between Article 5(1)(a) and Article 5(2).

Infringement under Article 5(1)(b): the law

273. The manner in which the requirement of a likelihood of confusion in Article 5(1)(b) of the Directive, the corresponding provisions in the Regulation and the corresponding provisions concerning relative grounds of objection to registration in both the Directive and the Regulation should be interpreted and applied has been considered by the Court of Justice in a considerable number of decisions, and in particular the leading cases of Case C-251/95 *SABEL BV v Puma AG* [1997] ECR I-6191, Case C-39/97 *Canon Kabushiki Kaisha v Metro-Goldwyn-Meyer Inc* [1998] ECR I-5507, Case C-342/97 *Lloyd Schuhfabrik Meyer & Co GmbH v Klijsen Handel BV* [1999] ECR I-3819, Case C-425/98 *Marca Mode CV v Adidas AG* [2000] ECR I-4861, Case C-3/03 *Matrazen Concord GmbH v Office for Harmonisation in the Internal Market* [2004] ECR I-3657, Case C-120/04 *Medion AG v Thomson Sales Germany & Austria GmbH* [2005] ECR I-8551 and Case C-334/05 *Office for Harmonisation in the Internal Market v Shaker de L. Laudato & C SAS* [2007] ECR I-4529.
274. The principles established by these cases in the registration context have been conveniently summarised by the Trade Marks Registry as follows:
- “(a) the likelihood of confusion must be appreciated globally, taking account of all relevant factors;
 - (b) the matter must be judged through the eyes of the average consumer of the goods or services in question, who is deemed to be reasonably well informed and reasonably circumspect and observant, but who rarely has the chance to make direct comparisons between marks and must instead rely upon the imperfect picture of them he has kept in his mind, and whose attention varies according to the category of goods or services in question;
 - (c) the average consumer normally perceives a mark as a whole and does not proceed to analyse its various details;
 - (d) the visual, aural and conceptual similarities of the marks must normally be assessed by reference to the overall impressions created by the marks bearing in mind their distinctive and dominant components, but it is only when all

other components of a complex mark are negligible that it is permissible to make the comparison solely on the basis of the dominant elements;

- (e) nevertheless, the overall impression conveyed to the public by a composite trade mark may, in certain circumstances, be dominated by one or more of its components;
- (f) and beyond the usual case, where the overall impression created by a mark depends heavily on the dominant features of the mark, it is quite possible that in a particular case an element corresponding to an earlier trade mark may retain an independent distinctive role in a composite mark, without necessarily constituting a dominant element of that mark;
- (g) a lesser degree of similarity between the goods or services may be offset by a great degree of similarity between the marks, and vice versa;
- (h) there is a greater likelihood of confusion where the earlier mark has a highly distinctive character, either *per se* or because of the use that has been made of it;
- (i) mere association, in the strict sense that the later mark brings the earlier mark to mind, is not sufficient;
- (j) the reputation of a mark does not give grounds for presuming a likelihood of confusion simply because of a likelihood of association in the strict sense;
- (k) if the association between the marks causes the public to wrongly believe that the respective goods [or services] come from the same or economically-linked undertakings, there is a likelihood of confusion.”

275. There is an important difference between the comparison of marks in the registration context and the comparison of mark and sign in the infringement context, namely that the former requires consideration of notional fair use of the mark applied for, while the latter requires consideration of the use that has actually been made of the sign in context. This was established by the judgment of the Court of Justice in Case C-533/06 *O2 Holdings Ltd v Hutchison 3G UK Ltd* [2008] ECR I-4231. In *Och-Ziff Management Europe Ltd v OCH Capital Ltd* [2010] EWHC 2599 (Ch), [2011] ETMR 1 at [77]-[78] I held that this involved consideration of the circumstances of the use of the sign complained of, and not consideration of circumstances prior to, simultaneous with or subsequent to the use of the sign.

276. I also held in *Och-Ziff* at [79]-[101] that Article 9(1)(b) of the Regulation extends to “initial interest confusion”, that is to say, confusion on the part of the public as to the trade origin of the goods or services in relation to which the impugned sign has been used arising from use of the sign *prior* to purchase of those goods or services, and in particular confusion arising from use of the sign in advertising or promotional materials. This conclusion applies equally to Article 5(1)(b) of the Directive.

277. What about “post-sale confusion”, that is to say, confusion on the part of part of the public as to the trade origin of goods or services in relation to which the impugned

sign has been used which only arises *after* the goods or services have been purchased? This is another question which has been considered quite extensively in US trade mark law: see Dinwoodie and Janis, *Trademarks and Unfair Competition: Law and Policy* (3rd ed, Wolters Kluwer, 2010) pp. 574-580. I expressly refrained from expressing any view on it in *Och-Ziff*, since it did not arise in that case. It does arise in the present case, however.

278. Counsel for DataCard submitted that post-sale confusion was capable of demonstrating the existence of a likelihood of confusion for the purposes of Article 5(1)(b), whereas counsel for Eagle submitted that it was not.

279. The question of post-sale confusion has been touched on by the Court of Justice in three judgments, none of which is determinative of this issue. The first is *Arsenal*, where the issue was whether Mr Reed has infringed the ARSENAL trade mark by selling merchandise such as scarves bearing the sign Arsenal. Mr Reed relied *inter alia* on a disclaimer at the point of sale. The Court held:

“54. The proprietor may not prohibit the use of a sign identical to the trade mark for goods identical to those for which the mark is registered if that use cannot affect his own interests as proprietor of the mark, having regard to its functions. Thus certain uses for purely descriptive purposes are excluded from the scope of Article 5(1) of the Directive because they do not affect any of the interests which that provision aims to protect, and do not therefore fall within the concept of use within the meaning of that provision (see, with respect to a use for purely descriptive purposes relating to the characteristics of the product offered, Case C-2/00 *Hölterhoff* [2002] ECR I-4187, paragraph 16).

55. In this respect, it is clear that the situation in question in the main proceedings is fundamentally different from that in *Hölterhoff*. In the present case, the use of the sign takes place in the context of sales to consumers and is obviously not intended for purely descriptive purposes.

56. Having regard to the presentation of the word ‘Arsenal’ on the goods at issue in the main proceedings and the other secondary markings on them (see paragraph 39 above), the use of that sign is such as to create the impression that there is a material link in the course of trade between the goods concerned and the trade mark proprietor.

57. That conclusion is not affected by the presence on Mr Reed's stall of the notice stating that the goods at issue in the main proceedings are not official Arsenal FC products (see paragraph 17 above). Even on the assumption that such a notice may be relied on by a third party as a defence to an action for trade mark infringement, there is a clear possibility in the present case that some consumers, in particular if they come across the goods after they have been sold by Mr Reed

and taken away from the stall where the notice appears, may interpret the sign as designating Arsenal FC as the undertaking of origin of the goods.

58. Moreover, in the present case, there is also no guarantee, as required by the Court's case-law cited in paragraph 48 above, that all the goods designated by the trade mark have been manufactured or supplied under the control of a single undertaking which is responsible for their quality.
59. The goods at issue are in fact supplied outside the control of Arsenal FC as trade mark proprietor, it being common ground that they do not come from Arsenal FC or from its approved resellers.
60. In those circumstances, the use of a sign which is identical to the trade mark at issue in the main proceedings is liable to jeopardise the guarantee of origin which constitutes the essential function of the mark, as is apparent from the Court's case-law cited in paragraph 48 above. It is consequently a use which the trade mark proprietor may prevent in accordance with Article 5(1) of the Directive.”
280. As discussed above, the Court’s reasoning in this passage is that the use of the sign is liable to affect the origin function of the trade mark where the use of the sign is such as to create the impression that there is a material link in the course of trade between the goods concerned and the trade mark proprietor i.e. the sign functions as a trade mark. Nevertheless, [57] appears to acknowledge the relevance of post-sale confusion when considering the impact of the use of the sign (which is not, of course, the same thing as requiring a likelihood of confusion).
281. Similarly, in *Anheuser-Busch* the Court held as follows when answering a question about trade names:
- “59. First, with respect to Directive 89/104, it follows from the Court’s case-law on the definition of use by a third party, for which provision is made in Article 5(1) of that directive, that the exclusive right conferred by a trade mark was intended to enable the trade mark proprietor to protect his specific interests as proprietor, that is, to ensure that the trade mark can fulfil its functions and that, therefore, the exercise of that right must be reserved to cases in which a third party’s use of the sign affects or is liable to affect the functions of the trade mark, in particular its essential function of guaranteeing to consumers the origin of the goods (see Case C-206/01 *Arsenal Football Club* [2002] ECR I-10273, paragraphs 51 and 54).
60. That is the case, in particular, where the use of that sign allegedly made by the third party is such as to create the impression that there is a material link in trade between the third party’s goods and the undertaking from which those

goods originate. It must be established whether the consumers targeted, including those who are confronted with the goods after they have left the third party's point of sale, are likely to interpret the sign, as it is used by the third party, as designating or tending to designate the undertaking from which the third party's goods originate (see, to that effect, *Arsenal Football Club*, cited above, paragraphs 56 and 57).

61. The national court must establish whether that is the case in the light of the specific circumstances of the use of the sign allegedly made by the third party in the main case, namely, in the present case, the labelling used by Budvar in Finland.
 62. The national court must also confirm whether the use made in the present case is one 'in the course of trade' and 'in relation to goods' within the meaning of Article 5(1) of Directive 89/104 (see, inter alia, *Arsenal Football Club*, paragraphs 40 and 41).
 63. Where those conditions are satisfied, it follows from the case-law of the Court that, in the event of identity of the sign and the trade mark and of the goods or services, the protection conferred by Article 5(1)(a) of Directive 89/104 is absolute, whereas, in the situation provided for in Article 5(1)(b), the proprietor, in order to enjoy protection, must also prove that there is a likelihood of confusion on the part of the public because the signs and trade marks and the designated goods or services are identical or similar (see, to that effect, Case C-292/00 *Davidoff* [2003] ECR I-389, paragraph 28, and Case C-291/00 *LTJ Diffusion* [2003] ECR I-2799, paragraphs 48 and 49).
 64. However, where the examinations to be carried out by the national court, referred to in paragraph 60 of this judgment, show that the sign in question in the main case is used for purposes other than to distinguish the goods concerned – for example, as a trade or company name – reference must, pursuant to Article 5(5) of Directive 89/104, be made to the legal order of the Member State concerned to determine the extent and nature, if any, of the protection afforded to the trade-mark proprietor who claims to be suffering damage as a result of use of that sign as a trade name or company name (see Case C-23/01 *Robelco* [2002] ECR I-10913, paragraphs 31 and 34).”
282. The reasoning is essentially the same as in *Arsenal*, and again [60] appears to acknowledge the relevance of post-sale confusion. On the other hand, [63] says that it remains necessary in an Article 5(1)(b) case to prove that there is a likelihood of confusion.

283. In Case C-361/04 *Ruiz-Picasso v Office for Harmonisation in the Internal Market* [2006] ECR I-643 the dispute was as to the registrability of the mark PICARO for vehicles in the context of an opposition based on an earlier registration of PICASSO. One of the points in issue was the level of attention of the relevant average consumer. The Court of Justice held that the Court of First Instance had not erred in holding that the average consumer of vehicles would exhibit a high level of attention. In this context the Court held as follows:

- “41. As to the fact that the relevant public is also likely to perceive such goods and the marks relating to them in circumstances unconnected with any act of purchase and to display, where appropriate, a lower level of attention on such occasions, the Court of First Instance was also fully entitled to observe, again in paragraph 59 of the judgment under appeal, that the existence of such a possibility does not prevent the taking into account of the particularly high level of attention exhibited by the average consumer when he prepares and makes his choice between different goods in the category concerned.
42. First, it is clear that, whatever the goods and marks at issue, there will always be situations in which the public faced with them will grant them only a low degree of attention. However, to require that account be taken of the lowest degree of attention which the public is capable of displaying when faced with a product and a mark would amount to denying all relevance, for the purpose of an assessment of the likelihood of confusion, to the criterion relating to the variable level of attention according to the category of goods, noted in paragraph 38 of this judgment.
43. Second, as observed by OHIM, the authority called upon to assess whether there is a likelihood of confusion cannot reasonably be required to establish, for each category of goods, the consumer’s average amount of attention on the basis of the level of attention which he is capable of displaying in different situations.
44. Nor does *Arsenal Football Club* militate against the foregoing analysis.
45. It must be noted that in that judgment the Court was called upon to rule on whether Article 5(1)(a) of Directive 89/104 was to be interpreted as precluding the sale and offer for sale of goods when they were marked with a sign identical to a mark registered by a third party in respect of the same goods.
46. After concluding that that was indeed the case, the Court stated that the fact that a sign to be found at the place of sale of the goods at issue drew consumers’ attention to the fact that those goods did not come from the proprietor of the mark did not affect such a conclusion. It is against that particular

background that the Court, in paragraph 57 of *Arsenal Football Club*, referred in particular to the fact that even on the assumption that that type of notice may be relied upon by the interested party as a defence, it was possible, in the case which gave rise to that judgment, that some consumers, in particular if they came across the goods after they had been sold and taken away from the place of sale, might interpret the sign affixed to those goods as designating the proprietor of the mark concerned as the undertaking of origin of the goods.

47. In doing so, the Court did not in any way express a general rule from which it could be inferred that, for the purposes of an assessment of the likelihood of confusion within the meaning of Article 5(1)(b) of Directive 89/104 or Article 8(1)(b) of Regulation No 40/94, there is no need to refer specifically to the particularly high level of attention displayed by consumers when purchasing a certain category of goods.
48. Finally, it must be stated that, by asserting in paragraph 60 of the judgment under appeal that the question of the degree of attention of the relevant public to be taken into account for assessing the likelihood of confusion is different from the question whether circumstances subsequent to the purchase situation may be relevant for assessing whether there has been a breach of trade mark rights, as was accepted, as regards the use of a sign identical to the trade mark, in *Arsenal Football Club*, the Court of First Instance did not, contrary to the appellants' submission, in any way hold that the concept of likelihood of confusion under Articles 8(1)(b) and 9(1)(b) of Regulation No 40/94 must be interpreted differently.”
284. Counsel for DataCard submitted that, correctly understood, this entire passage is about the level of attention which is deemed to be displayed by the average consumer of the goods in question. On this reading, what the Court was saying is that, when assessing whether there is a likelihood of confusion, it is not necessary to take into account the fact that there may be circumstances in which the average consumer displays a rather lower level of attention than he or she normally does when choosing between goods of that type. As for the decision in *Arsenal*, all the Court was saying was that this did not support the contrary point of view.
285. I accept that analysis. Furthermore, although the syntax of [48] is somewhat convoluted, I do not understand the Court of Justice to have disagreed with the Court of First Instance's proposition that “the question of the degree of attention of the relevant public to be taken into account for assessing the likelihood of confusion is different from the question whether circumstances subsequent to the purchase situation may be relevant for assessing whether there has been a breach of trade mark rights”.
286. On balance, it seems to me that the case law of the Court of Justice supports the proposition that post-sale confusion can be relied upon in support of a claim under Article 5(1)(b).

287. Furthermore, I note that the Hoge Raad der Nederlanden (Supreme Court of the Netherlands) held that post-sale confusion could be relied upon under Article 5(1)(b) in *Benetton v G-Star* (8 September 2006, NJ 2006, 492): see Cohen Jehoram, Van Nispen and Huydecoper, *European Trademark Law: Community Trade Law and Harmonised National Trademark Law* (Kluwer, 2010) p. 290.
288. Finally, as a matter of principle, I find it difficult to see why it should matter if confusion only arises after the goods have been sold. Suppose that a consumer orders goods from a third party's website and, at the time of ordering, is not confused as the trade origin of the goods; but when the goods arrive some days later, the goods are labelled in a manner which wrongly leads the consumer to believe that the goods emanate from the trade mark proprietor. Why should such confusion not be actionable? It falls within the scope of a contextual assessment of the use of the sign. It is surely capable of being damaging to the trade mark proprietor. For example, it may cause the consumer to obtain the goods from the same website the next time he or she orders those goods under the same mistaken belief. And why should it make any difference for these purposes whether the goods are labelled with a sign identical to the trade mark or merely one that is similar to the trade mark i.e. whether the case falls within Article 5(1)(a) or 5(1)(b)?
289. Accordingly, I conclude that in appropriate circumstances post-sale confusion can be relied upon as demonstrating the existence of a likelihood of confusion under Article 5(1)(b).

Infringement under Article 5(2): the law

290. In Case C-292/00 *Davidoff & Cie SA v Gofkid Ltd* [2003] ECR I-389 and C-408/01 *Adidas-Salomon AG v Fitnessworld Trading Ltd* [2003] ECR I-12537 the Court of Justice held that, notwithstanding the wording of the Article referring to goods or services which are not similar to those for which the mark is registered, this form of protection also extends to cases where a sign which is identical with or similar to the trade mark is used in relation to goods or services identical with or similar to those covered by the trade mark.
291. The first requirement is that the Trade Mark has a reputation. This is not a particularly onerous requirement: see Case C-375/97 *General Motors Corp v Yplon SA* [1999] ECR I-5421 at [24]-[27] and cf. Case C-301/07 *PAGO International GmbH v Tirolmilch registrierte Genossenschaft mbH* [2009] ECR I-9429 at [22]-[25].
292. The next requirement is that the use of the signs complained of gives rise to a "link" with the Trade Mark in the mind of the average consumer as explained in Case C-252/07 *Intel Corp Inc v CPM United Kingdom Ltd* [2008] ECR I-8823.
293. Finally, it is necessary for the trade mark proprietor to establish the existence of one of three kinds of injury, which were described by the Court of Justice in *L'Oréal v Bellure* as follows:
- "37. The existence of such a link in the mind of the public constitutes a condition which is necessary but not, of itself, sufficient to establish the existence of one of the types of injury against which Article 5(2) of Directive 89/104 ensures

protection for the benefit of trade marks with a reputation (see, to that effect, *Intel Corporation*, paragraphs 31 and 32).

38. Those types of injury are, first, detriment to the distinctive character of the mark, secondly, detriment to the repute of that mark and, thirdly, unfair advantage taken of the distinctive character or the repute of that mark (see, to that effect, *Intel Corporation*, paragraph 27).
 39. As regards detriment to the distinctive character of the mark, also referred to as ‘dilution’, ‘whittling away’ or ‘blurring’, such detriment is caused when that mark’s ability to identify the goods or services for which it is registered is weakened, since use of an identical or similar sign by a third party leads to dispersion of the identity and hold upon the public mind of the earlier mark. That is particularly the case when the mark, which at one time aroused immediate association with the goods or services for which it is registered, is no longer capable of doing so (see, to that effect, *Intel Corporation*, paragraph 29).
 40. As regards detriment to the repute of the mark, also referred to as ‘tarnishment’ or ‘degradation’, such detriment is caused when the goods or services for which the identical or similar sign is used by the third party may be perceived by the public in such a way that the trade mark’s power of attraction is reduced. The likelihood of such detriment may arise in particular from the fact that the goods or services offered by the third party possess a characteristic or a quality which is liable to have a negative impact on the image of the mark.
 41. As regards the concept of ‘taking unfair advantage of the distinctive character or the repute of the trade mark’, also referred to as ‘parasitism’ or ‘free-riding’, that concept relates not to the detriment caused to the mark but to the advantage taken by the third party as a result of the use of the identical or similar sign. It covers, in particular, cases where, by reason of a transfer of the image of the mark or of the characteristics which it projects to the goods identified by the identical or similar sign, there is clear exploitation on the coat-tails of the mark with a reputation.
 42. Just one of those three types of injury suffices for Article 5(2) of Directive 89/104 to apply (see, to that effect, *Intel Corporation*, paragraph 28).”
294. So far as unfair advantage is concerned, Lloyd LJ in *Whirlpool* interpreted the Court of Justice’s judgment in *L’Oréal v Bellure* as follows:
- “112. Thus, the issue raised by Jacob L.J. at para.91 of his judgment in *L’Oréal v Bellure*, which led him to pose the fifth of the

referred questions, has been answered, in essence, to the effect that an advantage obtained by the third party from the use of a similar sign, which is neither confusing nor otherwise damaging, is unfair if the advantage is obtained intentionally in order to benefit from the power of attraction, the reputation and the prestige of the mark and to exploit the marketing effort expended by the proprietor of the mark without making any such efforts of his own, and without compensation for any loss caused to the proprietor, or for the benefit gained by the third party.

....

136. ... It is not sufficient to show (even if Whirlpool could) that Kenwood has obtained an advantage. There must be an added factor of some kind for that advantage to be categorised as unfair. It may be that, in a case in which advantage can be proved, the unfairness of that advantage can be demonstrated by something other than intention, which was what was shown in *L'Oréal v Bellure*. No additional factor has been identified in this case other than intention.
137. The question of unfair advantage has to be considered in the round, using a global assessment as indicated in *Intel* in para.79 of the Court's judgment. As Advocate General Sharpston said at para.65 of her Opinion in *Intel*, unfair advantage is the more likely to be found if the mark is more distinctive and if the goods or services are more similar. The Board of Appeal in *Mango* also said that unfair advantage is the more likely where there is greater similarity of goods as well as where the mark is more distinctive, but that was a case where the mark was identical, and strongly distinctive, and the goods were not the same but they were in an associated or overlapping field. The Court in *L'Oréal v Bellure* also referred to the importance of the strength of the reputation of the mark, and the strength of the reminder, reiterating what had been said in *Intel*.”
295. The importance of intention was emphasised by Jacob LJ, with whom Wall and Rimer LJJ agreed, when *L'Oréal v Bellure* returned to the Court of Appeal [2010] EWCA Civ 535, [2010] RPC 23 at [49]:

“So far as I can see this is saying if there is ‘clear exploitation on the coat-tails’ that is ipso facto not only an advantage but an unfair one at that. In short, the provision should be read as though the word ‘unfair’ was simply not there. No line between ‘permissible free riding’ and ‘impermissible free riding’ is to be drawn. All freeriding is ‘unfair.’ It is a conclusion high in moral content (the thought is clearly that copyists, even of lawful products should be condemned) rather than on economic content.”

I do not understand Jacob LJ to have ruled out the possibility that the unfairness of the advantage may be established by some factor other than intention, however.

The defence under Article 6(1)(c): the law

296. The defence under Article 6(1)(c) was considered by the Court of Justice in Case 228/03 *Gillette Co v LA-Laboratories Ltd Oy* [2005] ECR I-2337. With regard to the requirement that the use of the trade mark be necessary to indicate the intended purpose of a product or service, the Court held as follows:

- “30. Firstly, according to Article 6(1)(c) of Directive 89/104, the trade mark owner may not prohibit a third party from using the mark in trade where it is necessary to indicate the intended purpose of a product or service, in particular as accessories or spare parts.
31. It should be noted that that provision does not lay down criteria for determining whether a given intended purpose of a product falls within its scope, but merely requires that use of the trade mark be necessary in order to indicate such a purpose.
32. Moreover, since the intended purpose of the products as accessories or spare parts is cited only by way of example, those doubtless being the usual situations in which it is necessary to use a trade mark in order to indicate the intended purpose of a product, the application of Article 6(1)(c) of Directive 89/104 is, as the United Kingdom Government and the Commission of the European Communities have rightly pointed out in their observations, not limited to those situations. Therefore, in the circumstances of the main proceedings, it is not necessary to determine whether a product must be regarded as an accessory or a spare part.
33. Secondly, it should be noted, on the one hand, that the Court has already held that use of a trade mark to inform the public that the advertiser is specialised in the sale, or that he carries out the repair and maintenance, of products bearing that trade mark which have been marketed under that mark by its owner or with his consent, constitutes a use indicating the intended purpose of a product within the meaning of Article 6(1)(c) of Directive 89/104 (see *BMW*, paragraphs 54 and 58 to 63). That information is necessary in order to preserve the system of undistorted competition in the market for that product or service.
34. The same applies to the case in the main proceedings, the marks of which the Gillette Company is the owner being used by a third party in order to provide the public with comprehensible and complete information as to the intended purpose of the product which it markets, that is to say as to its compatibility with the product which bears those trade marks.

35. In addition, it is sufficient to note that such use of a trade mark is necessary in cases where that information cannot in practice be communicated to the public by a third party without use being made of the trade mark of which the latter is not the owner (see, to that effect, *BMW*, paragraph 60). As the Advocate General has pointed out in points 64 and 71 of his Opinion, that use must in practice be the only means of providing such information.
36. In that respect, in order to determine whether other means of providing such information may be used, it is necessary to take into consideration, for example, the possible existence of technical standards or norms generally used for the type of product marketed by the third party and known to the public for which that type of product is intended. Those norms, or other characteristics, must be capable of providing that public with comprehensible and full information on the intended purpose of the product marketed by that third party in order to preserve the system of undistorted competition on the market for that product.
37. It is for the national court to determine whether, in the circumstances of the case in the main proceedings, use of the trade mark is necessary, taking account of the requirements referred to in paragraphs 33 to 36 of this judgment and of the nature of the public for which the product marketed by LA-Laboratories is intended.
38. Thirdly, Article 6(1)(c) of Directive 89/104 makes no distinction between the possible intended purposes of products when assessing the lawfulness of the use of a trade mark. The criteria for assessing the lawfulness of the use of a trade mark with accessories or spare parts in particular are thus no different from those applicable to other categories of possible intended purposes.
39. Having regard to the above considerations, the answer to the first, second and third questions must be that the lawfulness or otherwise of the use of the trade mark under Article 6(1)(c) of Directive 89/104 depends on whether that use is necessary to indicate the intended purpose of a product.

Use of the trade mark by a third party who is not its owner is necessary in order to indicate the intended purpose of a product marketed by that third party where such use in practice constitutes the only means of providing the public with comprehensible and complete information on that intended purpose in order to preserve the undistorted system of competition in the market for that product.

It is for the national court to determine whether, in the case in the main proceedings, such use is necessary, taking account of the nature of the public for which the product marketed by the third party in question is intended.

Since Article 6(1)(c) of Directive 89/104 makes no distinction between the possible intended purposes of products when assessing the lawfulness of the use of the trade mark, the criteria for assessing the lawfulness of the use of a trade mark with accessories or spare parts in particular are thus no different from those applicable to other categories of possible intended purposes of the products.”

297. As for the requirement to act in accordance with honest practices in industrial or commercial matters, the ECJ has repeatedly held that this “constitutes in substance the expression of a duty to act fairly in relation to the legitimate interests of the trade mark proprietor”: see *BMW v Deenik* at [61], Case C-100/02 *Gerolsteiner Brunnen GmbH & Co v Putsch GmbH* [2004] ECR I-691 at [24], *Anheuser-Busch* at [82], *Gillette* at [41] and *Céline* at [33]. In *Anheuser-Busch* the Court said that this is “essentially the same condition as that laid down by Art. 17 of the TRIPs Agreement”, which provides:

“Members may provide limited exceptions to the rights conferred by a trade mark, such as fair use of descriptive terms, provided that such exceptions take account of the legitimate interests of the owner of the trade mark and of third parties.”

298. The ECJ has also held that the court should “carry out an overall assessment of all the relevant circumstances”, and in particular should assess whether the defendant “can be regarded as unfairly competing with the proprietor of the trade mark”: see *Gerolsteiner Brunnen* at [26], *Anheuser-Busch* at [84] and *Céline* at [35]. This makes sense, since the wording of the proviso to Article 12 appears to reflect Article 10bis(2) of the Paris Convention for the Protection of Industrial Property, which provides:

“Any act of competition contrary to honest practices in industrial or commercial matters constitutes an act of unfair competition.”

299. In *Gillette* the ECJ held as follows:

“42. In that regard, use of the trade mark will not comply with honest practices in industrial or commercial matters where, first, it is done in such a manner that it may give the impression that there is a commercial connection between the reseller and the trade mark proprietor (*BMW*, paragraph 51).

43. Nor may such use affect the value of the trade mark by taking unfair advantage of its distinctive character or repute (*BMW*, paragraph 52).

44. In addition, as the United Kingdom Government and the Commission have rightly pointed out in their observations, use of the trade mark

will not be in accordance with Article 6(1)(c) of Directive 89/104 if it discredits or denigrates that mark.

45. Finally, where the third party presents its product as an imitation or replica of the product bearing the trade mark of which it is not the owner, such use of that mark does not comply with honest practices within the meaning of Article 6(1)(c).
46. It is for the national court to determine whether, in the case in the main proceedings, the use made of the trade marks owned by Gillette Company has been made in accordance with honest practices, taking account, in particular, of the conditions referred to in paragraphs 42 to 45 of this judgment. In that regard, account should be taken of the overall presentation of the product marketed by the third party, particularly the circumstances in which the mark of which the third party is not the owner is displayed in that presentation, the circumstances in which a distinction is made between that mark and the mark or sign of the third party, and the effort made by that third party to ensure that consumers distinguish its products from those of which it is not the trade mark owner.
47. Concerning the second part of that question, as the United Kingdom Government has rightly pointed out in its observations, the fact that a third party uses a trade mark of which it is not the owner in order to indicate the intended purpose of its product does not necessarily mean that it is presenting that product as being of the same quality as, or having equivalent properties to, those of the product bearing the trade mark. Whether there has been such a presentation depends on the facts of the case, and it is for the referring court to determine whether it has taken place by reference to the circumstances.
48. Moreover, whether the product marketed by the third party has been represented as being of the same quality as, or having equivalent properties to, the product whose trade mark is being used is a factor which the referring court must take into consideration when it verifies that such use is made in accordance with honest practices in industrial or commercial matters.
49. Having regard to the above considerations, the answer to the fourth question must be that the condition of 'honest use' within the meaning of Article 6(1)(c) of Directive 89/104, constitutes in substance the expression of a duty to act fairly in relation to the legitimate interests of the trade mark owner.

Use of the trade mark will not be in accordance with honest practices in industrial and commercial matters if, for example:

- it is done in such a manner as to give the impression that there is a commercial connection between the third party and the trade mark owner;

- it affects the value of the trade mark by taking unfair advantage of its distinctive character or repute;
- it entails the discrediting or denigration of that mark;
- or where the third party presents its product as an imitation or replica of the product bearing the trade mark of which it is not the owner.”

The average consumer in the present case

300. It is common ground that Eagle’s website is directed to two different classes of consumer, namely (i) resellers and (ii) end users. The websites which are managed by Eagle for its resellers are directed solely to the second class.
301. Resellers are companies that purchase ribbons to sell onto end users. Sales to resellers represent the bulk of Eagle’s sales. Of the 3,682 DataCard-compatible Plus-Ribbons Eagle had sold down to 15 December 2010, it had only sold 368 to a total of six different end users. The rest had been sold to 65 different resellers. It is common ground that resellers will be knowledgeable about printer ribbons, and in particular will be well aware of the difference between printer manufacturers’ own products and ribbons that are compatible with the printers. Accordingly, DataCard accepts that resellers are unlikely to be confused by Eagle’s activities. For that reason, I shall concentrate on the position of end users in the remainder of this judgment.
302. As to end users, the products complained of are sold for use with Datacard’s SP, SP Plus, CP and CP Plus ranges of desktop card printers. Such desktop printers are normally operated by office managers or secretarial or administration staff. Such users do not usually have any significant technical knowledge, but they do use the machines regularly and are familiar with them. They may or may not have been trained to use them by DataCard or one of its distributors. In the absence of a procurement department which may be present in larger organisations, the users of the printers are often responsible for buying replacement ribbons. Frequently these replacement ribbons are purchased via the internet from sites such as Eagle’s and its resellers’.
303. End users who wish to purchase a replacement ribbon for their DataCard printer are likely to search for a ribbon either by reference to the part number of the DataCard ribbon or by reference to the model of printer in question.
304. In the case of the six end users who had purchased ribbons from Eagle prior to 15 December 2010, four made a single purchase whereas two made repeat purchases.

The reputation of the Trade Marks

305. It is common ground that the Trade Marks have had a reputation in the UK at all material times. On the evidence, it was a substantial reputation amongst the relevant average consumers.

The alleged infringements: prior to 26 November 2009

The signs and uses complained of

306. On Eagle's website prior to November 2009, the Plus-Ribbon products for DataCard printers were described as follows:

- i) In a list of "hot products" on the home page, as "DATACARD PLUS RIBBON™" followed by a description of the type of ribbon e.g. "YMCKT 500 IMAGE HIGH QUALITY COLOUR RIBBON" below which was a short promotional text in smaller font as follows:

"With Plus-Ribbon™ brilliant colour photos and true-to-life flesh tones, plus incredibly sharp monochrome resin barcodes and text become a reality. Never has there been a better time to save money without compromising quality. Comes with our no quibble 7 day money back guarantee. This ribbon.... £79.00
You save £10.00"

- ii) On other pages of the website, as "Data Card Plus-Ribbon™" preceded by a "Product ID" and "Manufacturer P/N" and followed by a description of the type of ribbon, the promotional text quoted above and a statement such as "This ribbon can be used on: Data Card SP35, SP55, SP75".

307. Orders from Eagle's web site were placed via a click-through procedure as follows:

- (1) Clicking on a tab labelled "RIBBONS/CONSUMABLES" on the home page would take the customer to a page displaying (i) the statement "Please click on a category to view products", (ii) a so-called "breadcrumb trail" reading "Home>>Consumables>>Show All Products"; (iii) a banner advertisement headed "Plus-Ribbon™ Get the best from your ribbons for less" and stating "Cut your ribbon costs by as much as half without compromising on quality, or your money back!"; and (iv) icons labelled "Ribbons", "Cleaning Kits", "Printheads" and "Printer Parts".
- (2) By clicking on the "Ribbons" icon, the customer would be taken to a page displaying (i) the "Please click" statement, (ii) a breadcrumb trail reading "Home>>Consumables>>Ribbons>>Show All Products", (iii) the same banner advertisement and (iv) a number of icons consisting of logos of printer manufacturers, including DataCard's logo, and a Plus-Ribbon logo.
- (3) Clicking on the DataCard logo icon would take the customer to a page displaying (i) the "Please click" statement, (ii) a breadcrumb trail reading "Home>>Consumables>>Ribbons>>Datacard>>Show All Products" and (iii) three icons labelled "Colour", "Mono" and "Hologram".
- (4) A further click on the "Colour" tab brought the customer to a list of colour ribbons headed by a breadcrumb trail reading "Home>>Consumables>>Ribbons>>Datacard>>Colour". This list included both DataCard-manufactured products and Plus-Ribbon products. The Plus-Ribbon products were described as "Datacard Plus-Ribbon™" together with a

“Product ID” and a “Manufacturer P/N” together with a statement such as “suits Magna printer only”. The Plus-Ribbon products were accompanied by images of a Plus-Ribbon box. The DataCard products were not identified as such, but described generically as, for example “YMCKT Ribbon with Topcoat, suits Magna Card Printer” together with a “Product ID” and a “Manufacturer P/N”. The DataCard products were accompanied by images of generic ribbons rather than by images of a DataCard box. In both cases there would be an “RRP” (i.e. recommended retail price) and an “Eagle Price”.

308. The Product ID displayed for the Plus-Ribbon products was the same as the part number used by DataCard for its equivalent ribbon together with the prefix PR (for example PR-552854-204). The Product ID displayed for the original Datacard products was quite different (e.g. RBC026-0019). The Manufacturer P/N displayed for the Plus-Ribbon product was the same as for the equivalent DataCard product (e.g. 552854-204).
309. When a customer placed an order with Eagle, the customer would see a screen message and then receive an email from Eagle in which the products were described as “Data card Plus-Ribbon™” followed by a description of the type of ribbon together with the Product ID.
310. When the customer received the Plus-Ribbon product, it came in a Plus-Ribbon branded box with a label on it. DataCard complain about two styles of label:
- i) One label includes in large font the Product ID, a description of the type of ribbon (e.g. “YMCKT 500 images”) and the model of printer (e.g. “SP SERIES”) and in small font the words “*Datacard card printers*” or “*Data Card Card Printers*”. There was no statement as to who made the ribbon or the country where it was manufactured. (In fact, these are the ribbons made for Eagle by Kanon in China.)
 - ii) The other label is smaller and simply reads:

“Shelf Life – 1 Year
P/N: RBC035-0100
Type: YMCK-K-135
Brand: Datacard
Made in USA”
311. The second type of label was disclosed by Eagle on 23 September 2010 and was referred to by Mr Runcie in his first witness statement dated 30 September 2010. It was also referred to by DataCard in its opening skeleton argument and in the oral opening submissions of counsel for DataCard. Counsel for DataCard cross-examined Mr Rayner about it. Only after Mr Rayner’s evidence did counsel for Eagle object for the first time that this alleged infringement had not been pleaded by DataCard. Counsel for DataCard’s response was that this was within the scope of the allegations pleaded in DataCard’s Particulars of Claim. In the alternative, he contended that DataCard should be given permission to re-re-amend its Particulars of Claim to plead it.

312. In my view this alleged infringement is within the scope of DataCard's existing statement of case, but if I am wrong about that I would give DataCard permission to amend to plead it given that no objection was taken by Eagle until virtually the end of the trial. The only prejudice to Eagle suggested by counsel for Eagle was that permitting the amendment might cause Eagle difficulties with regard to a possible defence that uses of the label in question were covered by a settlement between DataCard and Eagle of earlier proceedings dated 8 March 2007. It was not suggested that the settlement agreement would bar uses after that date, however, and counsel for Eagle accepted that Eagle's position with regard to uses prior to that date could be protected by permitting Eagle to raise the point on any inquiry as to damages or account of profits.

DataCard's case under Article 5(1)(a)

313. DataCard's case under Article 5(1)(a) gives rise to five main issues:

- i) What is the sign which Eagle has used?
- ii) Is the sign identical to the Trade Marks?
- iii) Has the sign been used in relation to the goods complained of?
- iv) Are the goods complained of identical to those for which the Trade Marks are registered?
- v) Is the use liable to affect one or more of the functions of the Trade Marks?

314. *What is the sign?* DataCard contends that the sign which has been used is "DATACARD"/"Datacard"/"Data Card". Eagle contends that the sign used is either "PLUS-RIBBON"/"Plus-Ribbon" or "DATACARD PLUS-RIBBON"/ "Datacard Plus-Ribbon". In my view there can be no doubt that the sign which Eagle has used in the breadcrumb trail and Datacard icon on the website and on the box labels is "Datacard"/"Data Card". As for the description of the ribbons on the website and in the email as "DATACARD PLUS-RIBBON"/ "Datacard Plus-Ribbon", in my judgment this constitutes use of two signs, namely "DATACARD"/"Datacard" on the one hand and "PLUS-RIBBON"/"Plus-Ribbon" on the other hand. The average end user consumer viewing the website would already be familiar with the Trade Marks, but would not be familiar with the expression Plus-Ribbon. In my view the average consumer would appreciate, in particular from the use of the letters "TM", that Plus-Ribbon was another trade mark of some kind. This situation is quite different to cases like *Reed* and *Compass* where the defendant's sign was a single two or three-word trade mark.

315. *Identical sign?* There is no dispute that "DATACARD", "Datacard" and "Data Card" are all essentially the same sign and identical to the Trade Marks.

316. *In relation to?* There is no dispute that Eagle has used the signs in relation to the goods in question in the context of the primary uses on the website and in the email and on the box labels.

317. Counsel for Eagle submitted that Eagle has not used the signs in relation to the goods in the context of the DataCard logo icon and the breadcrumb trail. He submitted that these were simply aids to navigation on Eagle's website of a kind which, as the evidence shows, are commonly used on websites of this kind. I accept that they are navigational aids of commonly-used kind, but I do not accept that it necessarily follows that there is no use of the signs in question in relation to the goods in question.
318. Although the facts of the present case differ from either of the situations which were in issue in *L'Oréal v eBay*, it seems to me that the analysis of Advocate General Jääskinen at [99]-[103] is more nearly applicable to both the DataCard logo icon and the breadcrumb trail than that at [119]-[200]. This is not a case where Eagle is simply storing and displaying listings uploaded by users, and providing search and display functions for those listings. Rather, it is using its website to advertise both DataCard's products and its own competitive products. In my judgment it follows that Eagle's use of the sign "Datacard" in both the icon and the breadcrumb was in relation to both DataCard's products and its own. The former use is not objected to by DataCard (and in my view would be covered by Article 7 of the Directive), but the latter use is.
319. *Identical goods?* This issue gives rise to three sub-issues: are the goods sold by Eagle (i) "parts for manual and electric imprinters" or "parts therefore [i.e. for printers]" (ii) "all relating to data encoded cards" and (iii) included in Class 7 or Class 9? On each of these sub-issues DataCard says the answer is yes and Eagle says the answer is no.
320. For reasons that will appear, I consider that the first and third issues are two sides of the same coin.
321. I set out the relevant law in *Omega Engineering Inc v Omega SA* [2010] EWHC 1211 (Ch), [2010] FSR 26 at [4]-[25]. Neither side dissented from that account. The main point for present purposes is that, where the specification of a trade mark expressly incorporates a reference to the class (such as where it is registered for "widgets included in Class X"), the question whether any particular goods fall within the specification is to be answered by reference to the Registrar's practice at the date of registration.
322. In the present case the relevant date is 14 September 1989. Neither side adduced any evidence as to the Registrar's practice with regard to goods of this kind at that date. Counsel for Eagle did, however, point out that (a) the relevant edition of the Nice Classification at that time was the 5th edition and (b) whereas the List of Goods in Class 7 of that edition included "inking apparatus for printing machines", the List of Goods in Class 16 included "inking ribbons". Accordingly, he submitted that the goods were properly classified in Class 16. Counsel for DataCard submitted that, even if they were properly classified in Class 16, they were properly classified in Classes 7 and/or 9 as well.
323. In this regard, I note that Jessie Roberts states in *International Trademark Classification: A Guide to the Nice Agreement* (3rd ed) at p. 12:
- "Toners [inks] for photocopiers are in the alphabetical listing in Class 2, however the inclusion of this item makes it clear that even if the toner is contained in a cartridge it is classified in

Class 2. The purpose of the cartridge is to provide the toner and the toner is a Class 2 item. If the cartridge was sold empty, it would be classified in Class 9 since it would then be considered a part of a photocopier or printer, rather than merely a carrier for the ink or toner it contains.”

324. As Ms Roberts explains at p. 93:

“Concerning the item ‘ink’, it should be noted that the ink in Class 16 relates only to ink used for writing or used in office-related printing machines which are usually used to produce low-volume or single copies, such as typewriters (which are classified in Class 16) and computer printers (although this apparatus is classified in class 9). It should be noted that only ink ribbons used in computer printers are in Class 16. Ink toners for computer printers are in Class 2 and the toner cartridge itself, when sold empty, is in Class 9 since it is a part of the computer printer. Inks that are used with machines in the printing industry (which are classified in Class 7) or toners that are used in volume-printing apparatus, such as photocopying apparatus and machines (which are classified in Class 9), are in Class 2. ”

325. Although this commentary relates to the 9th edition of the Nice Classification, I have no reason to believe that the position was any different under the 5th edition. Applying this reasoning, it seems to me that Eagle’s products are proper to either Class 16 or Class 2, but not to Class 7 or 9: their purpose is merely to be a carrier for the inks used by the card printers in printing. By the same token, they are not parts for printers. Furthermore, this is not a situation where the goods can properly be classified in two different classes pursuant to paragraph (b) of the General Remarks in the Nice Classification, since the goods are not multipurpose composite objects.
326. If the products which Eagle sells are parts for printers within Classes 7 and/or 9, however, then in my judgment they do relate to data encoded cards.
327. I therefore conclude that Eagle has not used any of the signs in question in relation to goods identical to those for which they are registered. On the other hand, the goods are complementary to printers and very similar to parts for printers.
328. *Effect on the functions of the Trade Marks?* In view of my conclusion on the previous issue, this issue does not arise. In case the matter goes further, however, I shall nevertheless consider what the position would be if it were to be held that the goods were identical.
329. On that assumption, I consider that the uses were liable to affect the origin function of the Trade Marks. Applying the test laid down in *Google France* and *BergSpechte*, in my judgment the manner in which the signs were used was not such as to enable average consumers, or enabled them only with difficulty, to ascertain whether the products in question originated from DataCard or a third party. This is most clearly the case with the labels complained of, but I reach the same conclusion in respect of the principal uses on the website and in the email. As a result, I also reach the same

conclusion in respect of the DataCard logo icon and the “Datacard” sign in the breadcrumb trail so far as referable to the Plus-Ribbon products.

330. On the other hand, I do not consider that the uses were liable to affect the advertising function of the Trade Marks. Although the Trade Marks have a reputation, they do not convey a prestigious or luxury image. In my view Eagle’s uses of the signs complained of do not take unfair advantage of the reputation of the Trade Marks or adversely affect it by associating it with down-market goods etc.
331. *Conclusion.* It follows that DataCard’s claim under Article 5(1)(a) fails, but only because Eagle’s goods are not identical to those covered by the Trade Marks.

DataCard’s case under Article 5(1)(b)

332. I turn to consider DataCard’s alternative case under Article 5(1)(b). The position regarding the factors identified in paragraph 274 above may be summarised as follows:
- i) The average consumer who is an end user is reasonably well informed and reasonably circumspect, but does not have the level of knowledge and attention that a reseller would do.
 - ii) The Trade Marks have a highly distinctive character.
 - iii) The signs are identical to the Trade Marks.
 - iv) The goods are not identical to the goods for which the Trade Marks are registered, but are very similar.
333. Taken together, these factors point towards a likelihood of confusion. Eagle nevertheless contends that the context of the use was sufficient to avoid a likelihood of confusion. I do not accept this contention. In my judgment, even taking the context into account, each of the uses complained of gave rise to a likelihood of confusion on the part of end user consumers.
334. Again, this is most clearly the case in respect of the labels. Both of these are likely to have led unsuspecting consumers to believe that the products emanated from DataCard, and there was nothing to indicate otherwise. Even if the consumers were not confused at the time of purchase, and such confusion only arose after purchase, that is immaterial for the reasons explained above.
335. In the case of the primary uses on the website and in the email, these were also likely to have caused confusion on the part of unsuspecting consumers as to the source of the Plus-Ribbon products. In my view the average end user consumer who was searching for a replacement DataCard ribbon would be likely to be confused by the descriptions “DATACARD PLUS-RIBBON”/“Datacard Plus-Ribbon” into thinking that Plus-Ribbon was a subsidiary brand of DataCard’s or that there was some other trade connection between the Plus-Ribbon products and DataCard. The banner advertisement and the promotional text would tend to reduce the likelihood of confusion; but the likelihood of confusion would be increased by (i) Eagle’s failure to use the Trade Marks to describe the DataCard products, (ii) Eagle’s use of a Product

ID which reproduced the DataCard part number for the Plus-Ribbon products, but not for the DataCard products, and (iii) Eagle's use of a ribbon image for the DataCard products, but a box image for the Plus-Ribbon products.

336. As a result, I also reach the same conclusion in respect of the DataCard logo icon and the "Datacard" sign in the breadcrumb trail so far as referable to the Plus-Ribbon products.
337. Counsel for Eagle relied strongly on the fact that there is no evidence of any actual confusion having occurred. He submitted that, if there was a likelihood of confusion, some evidence of actual confusion would have emerged. I have taken the absence of evidence of actual confusion into account, but in my judgment it does not lead to the conclusion that there was no likelihood of confusion. It is well established that it is for the court to decide whether or not there is a likelihood of confusion, and that it is not necessary for there to be evidence of actual confusion for the court to conclude that there is a likelihood of confusion. Furthermore, in the circumstances of the present case, I do not consider the absence of evidence of actual confusion to be compelling for a number of reasons. First, most of Eagle's sales to end users take place via its resellers' websites. There is no disclosure and no evidence from any reseller. Nor is there any particular reason why a reseller should inform Eagle of an instance of confusion rather than dealing with the incident itself. Secondly, the quantity of ribbons sold to date is relatively small. Thirdly, even if consumers are confused, this may not manifest itself. Fourthly, as can be seen from the figures quoted in paragraph 301 above, many end user purchasers only make a single purchase. This makes it particularly likely that any confusion will go undetected. Fifthly, I agree with counsel for DataCard that Eagle's disclosure does not enable one to eliminate the possibility that some confusion has in fact occurred.
338. *Conclusion.* Accordingly, DataCard's claim under Article 5(1)(b) succeeds subject to Eagle's Article 6(1)(c) defence.

DataCard's case under Article 5(2)

339. Finally, I turn to DataCard's further alternative case under Article 5(2). For this purpose I shall assume, contrary to what I have found above, that there is no likelihood of confusion.
340. As noted above, Eagle does not dispute that the Trade Marks have a reputation. Nor does it dispute that the use of the signs complained of would give rise to a "link" with the Trade Mark in the mind of the average consumer. Nor does it contend that its use was with due cause if DataCard establishes one of the three types of injury and the use is not protected by Article 6(1)(c).
341. *Unfair advantage.* DataCard alleges that the use of the signs complained of takes unfair advantage of the reputation of the Trade Marks because Eagle represents that its Plus-Ribbon products are of as good quality as DataCard's ribbons, but in fact they are of lesser quality. I will deal with the factual issues relating to this contention in connection with Eagle's Article 6(1)(c) defence below, but for present purposes I will assume that DataCard has established the facts alleged. Even on that assumption, I am unable to understand why this means that *the use of the signs complained of* takes unfair advantage of the reputation of the Trade Marks. The use of the signs

complained of takes advantage of the reputation of the Trade Marks to sell Eagle's goods regardless of whether the quality of Eagle's goods is better, the same or worse than that of DataCard's. The question is whether it is an unfair advantage. In the present case the advantage is taken intentionally, but Eagle says it is necessary to take that advantage in order to indicate compatibility with DataCard printers. If that is so, why is the advantage taken unfair? If it was deemed to be unfair, that would mean that it would be unlawful to sell ribbons of lesser quality than DataCard's as compatible with DataCard's printers even if the vendor expressly informed consumers that was the case and charged less for the ribbons than DataCard. In my judgment, the relevance of DataCard's quality allegations is not to unfair advantage, but to Eagle's defence under Article 6(1)(c).

342. *Detriment to the distinctive character of the Trade Marks.* Although DataCard alleges that the use of the signs complained of is detrimental to the distinctive character of the Trade Marks, it has not pleaded, nor has counsel for DataCard articulated, any case of detriment that does not depend upon there being a likelihood of confusion.
343. *Detriment to the reputation of the Trade Marks.* DataCard again contends that the use of the signs complained of is detrimental to the reputation of the Trade Marks because Eagle represents that its Plus-Ribbon products are of as good quality as DataCard's ribbons but in fact they are of lesser quality. Again, I will assume for present purposes that DataCard has established the facts alleged. Even on that assumption, I cannot see how there will be damage to the reputation of the Trade Marks in absence of any confusion as to the trade origin of the Plus-Ribbon products. DataCard contends that, if there is a problem with the ribbon, consumers may blame the printer and hence DataCard. But if the consumer is aware that the ribbon comes from a different supplier, why should the consumer blame the printer? The consumer may still ask the printer manufacturer or distributor to sort the problem out, because that is the most practical way forward from the consumer's perspective, but it does not follow from such a request that the consumer thinks any the less of the printer or its manufacturer.
344. *Conclusion.* For these reasons, if DataCard's claim under Article 5(1)(b) failed because there was no likelihood of confusion, then its claim under Article 5(2) would fail as well.

Eagle's defence under Article 6(1)(c)

345. Eagle's defence under Article 6(1)(c) gives rise to two issues:
- i) Was use of (signs identical to) the Trade Marks necessary to indicate the intended purpose of Eagle's ribbons?
 - ii) Did Eagle use the signs in accordance with honest practices in industrial or commercial matters?
346. So far as the first issue is concerned, DataCard contends that the use of the signs was not necessary. In particular, DataCard argues that the use of the signs in the context of the DataCard logo icon and the breadcrumb trail was not necessary. It seems to me, however, that the points relied on by DataCard in support of these contentions really go to the second issue and not the first. In my judgment it was necessary for Eagle to use signs identical to the Trade Marks to indicate the intended purpose of Eagle's

ribbons, namely that the ribbons are compatible with DataCard's printers. There is no other realistic way in which Eagle could convey that information. And that must extend to enabling consumers to navigate Eagle's website to find the type of ribbon they want. As Eagle demonstrated, use of icons and breadcrumb trails containing OEM trade marks is common amongst websites of this kind. What DataCard is really complaining about is not the fact that Eagle has used the signs to indicate compatibility, but the manner of that use.

347. As to the second issue, in my judgment it follows from my conclusions in relation to Article 5(1)(b) that Eagle's use of the signs was not in accordance with honest practices in industrial and commercial matters. In short, the manner of the use gives the impression that there is, or at least may be, a commercial connection between the supplier of the Plus-Ribbon products (i.e. Eagle) and DataCard.
348. DataCard also contends, however, that Eagle's use of the signs was not in accordance with honest practices in industrial and commercial matters because of the quality issue referred to above. This contention is significant, because, if established, it would be an answer to Eagle's Article 6(1)(c) defence even if the manner of Eagle's use of the signs did not give rise to a likelihood of confusion. This would be particularly relevant if DataCard established its Article 5(1)(a) or Article 5(2) cases.
349. As noted above, the starting point is that DataCard contends that Eagle has represented in various ways on its website that its Plus-Ribbon products are of as good quality as DataCard's ribbons. Eagle does not dispute that such representations have been made. As Eagle points out, however, one needs to be careful about the meaning of such representations. I do not understand DataCard to allege that Eagle has represented that its ribbons will produce precisely the same colour shades using precisely the same heat settings as the corresponding DataCard ribbons when used in DataCard printers. If that is alleged, it has not been established. As Mr Runcie accepted, customers who adopt a quality standard will have tolerances. There is no evidence as to what those tolerances are. Furthermore, it is clear from the evidence as a whole that users of card printers understand that the settings may need to be adjusted to match the ribbon being used.
350. DataCard relies on three matters as establishing that these representations are false. First, DataCard relies upon tests performed by one of its employees, Ron Dorling, in June 2009. This evidence suffers from a number of flaws. First, it is not clear precisely what Mr Dorling did. Mr Dorling was not called as a witness, nor was anyone with knowledge of what he had done. Mr Runcie relied on some contemporaneous documents emanating from Mr Dorling, but these do not contain a full or clear description of what he did. In particular, it is not clear that he printed the same image on two of the three sets of cards. Secondly, the results relied on are selective in that Mr Dorling tested Plus-Ribbons in eight different printers, but only disclosed the results for the worst example. Thirdly, it appears that Mr Dorling did not try to match the printer settings to the Plus-Ribbons. Fourthly, I was not shown the originals of the cards printed by Mr Dorling, but only photocopies. In my judgment this evidence is valueless.
351. Secondly, DataCard relies upon tests on two Kanon ribbons performed by one of Eagle's employees, Stuart Parker, in February 2009. So far as print quality was concerned, Mr Parker's conclusion was that the Kanon ribbons performed very well,

but produced less vibrant colour tones and slightly more grainy images in some cases than the corresponding DataCard ribbon. He also found, however, that adjusting the settings enabled the Kanon ribbons more closely to replicate the colours. In my judgment this evidence does not establish a material difference in quality between Eagle's ribbons and DataCard's.

352. Mr Parker also conducted accelerated UV degradation tests using one hour's exposure in an EPROM burner. His conclusion was that the Kanon ribbons produced cards which degraded in UV light much more quickly than the DataCard ribbon. This test clearly shows a material difference between the quality of the ribbons under the conditions of the test. Furthermore, Mr Rayner gave evidence that the test was the same test as had been used by Eltron due to the fact that Mr Parker had worked at Eltron. As such, it was plainly intended to be a realistic test. Nevertheless, Eagle contends that it does not constitute a realistic test for two reasons. The more important of these is that the source of UV used in the test emitted light in the UVC band. UVC is completely blocked by ozone and thus is not a component of sunlight. Accordingly, a card in normal usage would not be exposed to UVC at all. In answer to this, DataCard relied on evidence given by Mr Rayner that the test was intended to show what happened when cards were exposed to UV card readers. There is no evidence that these emit UVC light, however. The second reason is that a card would have to be exposed for over 13 years at the maximum safe level for humans to be exposed to sunlight for it receive the same amount of energy as it received during the test. I am less impressed by this point, however, since it is common experience that sunlight can bleach the colours of various materials under conditions that are perfectly safe to humans. Overall, I conclude that this evidence does not establish that cards printed using Eagle's ribbons would suffer materially worse UV degradation than cards printed using DataCard ribbons under conditions that are likely to be experienced during normal use.
353. Finally, DataCard relies upon problems with a DataCard printer experienced by an end user, Thames Valley Chamber of Commerce. Again, however, DataCard did not call any witness to give evidence about this incident with knowledge of it. The only evidence about it consists of some emails from DataCard's distributor Securit World. These show that the customer returned the printer to the distributor on three occasions. So far as the first occasion is concerned, there is no evidence that the customer had used a Plus-Ribbon. On the second occasion, a Plus-Ribbon was involved, but there is no evidence that the Plus-Ribbon was the cause of the problems. As Mr Runcie accepted, there are other possible causes. On the third occasion, a Plus-Ribbon was again involved, but again there is no evidence that the Plus-Ribbon was the cause of the problems. Again, there are other possible causes.
354. In my judgment, even taken in its totality, the evidence relied upon by DataCard does not establish that Eagle's Plus-Ribbons are of materially inferior quality to DataCard's ribbons. Furthermore, there is no evidence of any customer dissatisfaction with the quality of Eagle's Plus-Ribbons.
355. I therefore conclude that Eagle has not used the signs complained of otherwise than in accordance with honest practices in industrial and commercial matters by reason of Eagle having made false representations as to the quality of the goods in question.

356. Nevertheless, Eagle's defence under Article 6(1)(c) to DataCard's claim under Article 5(1)(b) fails for the reason given in paragraph 347 above.

The alleged infringements: 26 November 2009 to February 2010

The signs and uses complained of

357. During this period Eagle changed the description of the ribbons on the website to "Plus-RibbonTM compatible with Data Card". The clickthrough process and breadcrumb trail were not changed. Furthermore, Eagle continued to use the style of label referred to in paragraph 305(i) above.
358. DataCard does not complain of the description "Plus-RibbonTM compatible with Data Card" *per se*, but does complain of this use of the sign "Data Card" in the context of the clickthrough process and breadcrumb trail.

DataCard's case under Article 5(1)(a)

359. Most of the analysis in paragraphs 313 to 331 above applies equally here, save that the issue considered in paragraph 315 does not arise. So far as the effect on the functions of the Trade Marks is concerned, the conclusion reached in paragraph 329 with regard to the labels holds good. As for the description "Plus-RibbonTM compatible with Data Card", with some hesitation I have concluded that the manner in which the "Data Card" sign was used in context was such as to enable average consumers only with difficulty to ascertain whether the products in question originated from DataCard or a third party. Thus the use of the sign was liable to affect the origin function of the Trade Marks. As a result, I also reach the same conclusion in respect of the DataCard logo icon and the "DataCard" sign in the breadcrumb trail so far as referable to the Plus-Ribbon products.
360. Again, it follows that DataCard's claim under Article 5(1)(a) fails, but only because Eagle's goods are not identical to those covered by the Trade Marks.

DataCard's case under Article 5(1)(b)

361. The analysis in paragraphs 332 to 334 above applies equally here.
362. As for the description "Plus-RibbonTM compatible with Data Card", with some hesitation I have concluded that DataCard has not established that the manner in which the "Data Card" sign was used in context was such as to give rise to a likelihood of confusion on the part of the average consumer. As DataCard rightly accepts, this description is not confusing in itself. Although it remains the case that the factors identified at the end of paragraph 332 would point towards a likelihood of confusion, I am not satisfied that DataCard has proved that these factors would be likely to cause the average consumer to misinterpret the description.
363. I also reach the same conclusion in respect of the DataCard logo icon and the "DataCard" sign in the breadcrumb trail so far as referable to the Plus-Ribbon products. Counsel for DataCard argued that these uses would give rise to initial interest confusion even if (contrary to DataCard's case) such confusion was dispelled by the time the customer placed an order. In my view initial interest confusion is not a

relevant concept in circumstances such as these, where one is considering linked pages on the same website. In any event, I do not consider that these uses are likely to confuse in and of themselves. In my judgment they are only objectionable if and insofar as they relate to other objectionable uses.

364. The difference between my conclusions in relation to Article 5(1)(a) and in relation to Article 5(1)(b) is explained by the slightly different tests which must be applied to determine whether there is an effect on the original function of the Trade Marks for the purposes of Article 5(1)(a) and whether there is a likelihood of confusion under Article 5(1)(b), and in particular the different onus.
365. It follows that DataCard's claim under Article 5(1)(b) succeeds, subject to Eagle's Article 6(1)(c) defence, in relation to the labels but not in relation to the other uses complained of.

DataCard's case under Article 5(2)

366. The analysis in paragraphs 339 to 343 above is equally applicable here.

Eagle's defence under Article 6(1)(c)

367. The analysis in paragraphs 345 to 356 above is equally applicable here. It follows that, to the extent that DataCard's claim under Article 5(1)(b) succeeds, Eagle's defence under Article 6(1)(c) fails.

The alleged infringements: February 2010

The signs and uses complained of

368. In about February 2010, Eagle made some further changes to the website. First, the description of the Eagle products was changed to "Plus-RibbonTM COMPATIBLE with DATACARD". Secondly, the statement "This ribbon can be used on:" was replaced by "This ribbon is compatible with". Thirdly, a statement was introduced beneath the banner advertisement on the "show all products" page (see paragraph 307(2) above) reading "Please click on an icon for a range of compatible and manufacturer own brand ribbons". In addition, the wording on the box label was changed to read "GENUINE PLUS-RIBBON" and "Compatible with Datacard Card Printers".

DataCard's case under Article 5(1)(a)

369. Most of the analysis in paragraphs 313 to 327 above applies equally here, save that the issue considered in paragraph 315 does not arise. So far as the effect on the functions of the Trade Marks is concerned, I consider that the use of the sign "Datacard" on the new labels is not liable to affect the origin function of the Trade Marks applying the test laid down in *Google France* and *BergSpechte*. As for the primary uses on the websites, I consider that the additional changes are just enough to enable average consumers to ascertain that the products do not emanate from DataCard without difficulty.

370. It follows that DataCard's claim under Article 5(1)(a) fails both because Eagle's goods are not identical to those covered by the Trade Marks and because the use of the signs complained of is not liable to affect any of the functions of the Trade Marks.

DataCard's case under Article 5(1)(b)

371. In my judgment none of the uses complained of give rise to a likelihood of confusion for similar reasons to those given in paragraphs 362 and 363 above.

DataCard's case under Article 5(2)

372. The analysis in paragraphs 339 to 343 above is equally applicable here.

Eagle's defence under Article 6(1)(c)

373. Since DataCard's cases under Article 5(1) and (2) fail, Eagle does not need its defence under Article 6(1)(c). If Eagle's use fell within Article 5(1)(a), however, I consider that it would have a defence under Article 6(1)(c).

The alleged infringements: since February 2010

374. The only change during this period is that Eagle has expanded the list of DataCard printers in respect of the Plus-Ribbon products are said to be compatible to include "Datacard SP35 Plus", "Datacard SP55 Plus" and "Datacard SP75 Plus". The corresponding list in respect of the original DataCard ribbons has not been expanded. Mr Rayner acknowledged that this was an error, but in my judgment it makes no material difference to the issues.

Comparative advertising

375. Finally, I record without comment that in his closing submissions counsel for DataCard pointed out that Eagle had not relied by way of defence upon European Parliament and Council Directive 2006/114/EC of 12 December 2006 concerning misleading and comparative advertising (codified version). Nor, for that matter, did DataCard rely upon it in support of its claims.

CONCLUSIONS

376. For the reasons given above, I conclude as follows:

- i) Claim 11 of the RFID Patent is invalid both because it is obvious over both Fargo and ENCAD and because it constitutes added matter.
- ii) If claim 11 of the RFID Patent was valid, Eagle would have infringed it.
- iii) Claims 1, 6, 8, 10, 11, 12, 13, 14, 19 and 22 of the Error Loading Patent as proposed to be amended are all obvious over Fargo Pro-L, Brother and Sharp.
- iv) If any of claims 1, 6 or 8 of Error Loading Patent was valid, Eagle would have infringed it pursuant to section 60(1). If claim 11 was valid, Eagle would have infringed it pursuant to section 60(2). If claims 1-10 were invalid, but claims

19 and 22 were valid, Eagle would not have infringed claims 19 and 22 pursuant to section 60(2).

- v) The proposed amendments to claim 1 of the Error Loading Patent would be permissible if the proposed amended claim was valid. The same is true of the amendment to introduce claim 14. The proposed amendments to introduce new claims 11 and 13 are not permissible since they would add matter. Furthermore, I decline to permit those amendments in the exercise of my discretion.
- vi) DataCard's claim for infringement of the Trade Marks succeeds under Article 5(1)(b) in relation to all the uses complained of prior to 26 November 2009 and in relation to the box labels used by Eagle from 26 November 2009 to February 2010. In these cases Eagle's defence under Article 6(1)(c) fails.
- vii) Otherwise, DataCard's claim for infringement of the Trade Marks fails.