



BL O/318/06

8 November 2006

PATENTS ACT 1977

BETWEEN

M-Systems Flash Disk Pioneers Ltd

Claimant

and

Trek Technology (Singapore) Pte Ltd

Defendant

PROCEEDINGS Application under section 72 for revocation
of
patent number GB 2371653

HEARING OFFICER

R J Walker

DECISION

Introduction

- 1 This is an action for revocation of patent number GB 2371653 ("the patent") in the name of Trek Technology (Singapore) Pte Ltd ("Trek"). The patent is based on international patent application number PCT/SG00/00029 which was filed on 21 February 2000 and subsequently published as WO 01/61692 on 23 August 2001 ("the application"). In due course this application entered the UK national phase and was eventually granted on 6 August 2003. The patent relates to a portable USB data storage device with a non-volatile solid-state memory. The claimant, M-Systems Flash Disk Pioneers Ltd ("M-Systems"), made an application on 15 December 2003 for revocation of the patent under section 72(1) of the Patents Act 1977 ("the Act").
- 2 M-Systems' grounds, as set out in its statement, were that the invention lacks novelty or an inventive step, that the patent specification does not disclose the invention clearly enough and completely enough for it to be performed by a person skilled in the art, and that matter disclosed in the specification of the patent extends beyond that disclosed in the application. Arguments in support of these grounds are contained in an accompanying witness statement by Dr. Paul Fenster who is M-Systems' patent attorney in Israel. On 9 March 2004 Trek filed a counterstatement in which it denied all of M-Systems' grounds.

Trek filed an amended counterstatement on 24 June 2004 with a proposal, supported by reasons, to amend the patent under section 75 of the Act. The requested amendment was unconditional. M-Systems responded on 20 September 2004 by filing a supplementary statement opposing the amendment and followed up on 6 January 2005 with an amended statement maintaining the grounds set out in its initial statement and identifying two additional prior art documents said to anticipate the patent.

- 3 Arrangements were put in place early in January 2005 for the substantive hearing but Trek wrote on 7 February 2005 to state that its counsel was of the opinion that the issues to be answered were not clear. Trek therefore requested that M-Systems clarify its case and that it be given an opportunity to consider the clarified case before the hearing. This gave rise to a series of exchanges between the parties and led to Trek writing on 21 February 2005 to request that the substantive hearing be deferred. M-Systems responded in a letter dated 22 February 2005 arguing that clarification was unnecessary and that Trek's motive was to lose the hearing date.
- 4 Following a preliminary hearing on 28 February 2005 Mr Barford, Deputy Director acting for the Comptroller, decided that the substantive hearing should go ahead as planned. Moreover, whilst he sympathised with Trek in view of the sprawling and unfocused way in which M-Systems had presented its case, he was not persuaded that M-Systems should provide a fresh, concise statement of grounds. In his view Trek knew the case that it had to answer. Moreover, he decided that the timing was such that any arguments, which were not substantiated or which were irrelevant or bad in law, should be a matter for the substantive hearing. Nevertheless, this preliminary hearing did achieve some clarification of the issues as the result of concessions made by M-Systems.
- 5 The matter came before me at a substantive hearing which began on 7 March 2005. However, after three days I adjourned the hearing because one of Trek's witnesses had to return to the United States before his cross-examination could be completed. The continued unavailability of this witness and M-Systems' unwillingness to agree to cross examination other than in person eventually led M-Systems to conclude that the best course would be to wave the opportunity to cross examine the witness further and to proceed as soon as possible to closing submissions. During this rather long adjournment a dispute arose over the admission of new documents which had been put forward by Trek. However, this dispute was eventually resolved when M-Systems lifted its opposition to the admission of these documents. Just six days before the hearing resumed on 21 June 2005 Trek wrote to apply to amend the patent further by introducing two new independent claims.
- 6 At the hearing Mr. Mark Platts-Mills, assisted by Mr. Jonathan Hill and instructed by patent attorneys Marks & Clerk, appeared on behalf of M-Systems and Mr. Peter Prescott, assisted by Mr. James St. Ville and instructed by patent attorneys Lloyd Wise, appeared on behalf of Trek.

The evidence and witnesses

- 7 The evidence, filed on behalf of M-Systems, comprises witness statements of

Dr. Fenster, Mr. Terence Leslie Johnson, Mr. Christopher Alan Sawyer and Mr. Dany Margalit. Dr. Fenster and Messrs. Johnson and Sawyer were cross-examined.

- 8 The evidence, filed on behalf of Trek, comprises witness statements of Mr. Kuan Mun Kwong, Professor Yongmin Kim and Mr. Steven Howe. Additional witness statements of Mr. Howe and Professor Kim were filed and admitted during the course of the hearing. Professor Kim and Messrs. Kuan and Howe were cross-examined.
- 9 Dr. Fenster has been M-Systems' patent attorney since mid-2002 and in this role he advised M-Systems in relation to litigation with Trek on a corresponding patent in Singapore. He has also been involved in the preparation of M-Systems' case in the present proceedings. As a patent attorney his main practice has been in the preparation and prosecution of patents before patent offices outside Israel. He states in a second witness statement that he has wide experience in reading and interpreting technical documents in a range of engineering and physics subject matter and that he considers himself an expert in the analysis and interpretation of patent documents. He is also an electrical engineer and a physicist with a doctorate in electrophysics. Before making a career change in 1988 to become a patent attorney he spent 28 years in various areas of research and development. He was employed by Elscint Ltd. to work in the field of medical imaging between 1980 and 1987, initially as a staff scientist and latterly as divisional manager for X-ray research and development. He has also been involved with other companies in research and development related to microwave tubes and high power short pulse generation and measurement. For five years he was a full time professor of Electrical Engineering and for over an additional ten years he taught a range of courses in various areas of electronics.
- 10 Dr. Fenster, as M-Systems' patent attorney, had no doubts about his ability to give an opinion in these proceedings based on his expertise in relation to the analysis and interpretation of patent documents. Indeed his first witness statement contains a great deal of opinion on matters of fact and law which are matters that properly fall to me to decide. Nevertheless, when cross-examined he acknowledged that his duty as an expert witness was to explain and enlighten but not to be an advocate. Despite this acknowledgement Dr. Fenster often turned to advocacy and it was clear that his objective was to support his client's case rather act as an independent expert whose sole aim was to help me on any matters requiring specialized technical knowledge. He was passionate and outspoken, occasionally robust and argumentative, in support of M-Systems' case. Moreover, despite his broad scientific background in the field of electronics, his lack of expertise in the field of computer peripherals, more particularly USB devices, limits the usefulness of his evidence on the specialised technical matters relevant to the patent. It is not enough, as he tried to suggest, that he has used computers and transferred data – so have I. I therefore need to be cautious about the weight I attach to Dr. Fenster's evidence.
- 11 Mr. Johnson is a partner in Marks & Clerk. He graduated from the University of Manchester with a Honours Degree in Metallurgy and Materials Science and has been in practice as a patent attorney since 1968. In two witness

statements Mr. Johnson draws various conclusions of law and fact but as I have indicated above such things are for me to decide. Moreover, there is nothing in Mr. Johnson's background which would allow him to adopt the mantle of an expert witness in the relevant field. I found Mr. Johnson a reliable witness under cross-examination in that he was open and straightforward in his answers but by its very nature his evidence is of little or no assistance to me.

- 12 Mr. Sawyer has been employed since September 2002 as the Chief Technical Officer of Oaksoft Limited which is a small British software house developing a generic data management project. From November 1995 to August 2002 he was the leading software architect for Synetics, which changed its name to Internetix in January 2000. With this name change came the role of leading Internetix's technical direction. As an employee of Synetics, prior to January 2000, Mr. Sawyer advised and consulted on hardware, network and operating issues. From July 1990 to October 1995 he worked for Lloyds Bank and specialised initially in PC connectivity and operating systems before becoming involved with software development. Mr. Sawyer was employed by Microware (London) Ltd from February 1983 to September 1988 doing a range of jobs, including PC hardware design and development. At the hearing Mr. Sawyer explained that since about 1995 his work was largely related to software but this did involve looking at the hardware on which his systems run.
- 13 I found Mr. Sawyer extremely knowledgeable about software but in my view his expertise in this area was of limited help in relation to the hardware device of the patent. Nevertheless, he has experience of component design from the early days of his career, and he stated that his work has required him to delve into USB protocols, which is expertise of greater relevance here. During his cross-examination I felt that he tried to be helpful where he could and that he was not inclined to speculate on matters outside his knowledge. However, Mr. Sawyer was occasionally hesitant when answering questions which might detract from M-Systems' case and this raised a slight question in my mind about his impartiality. In addition during an exchange he had with Mr. Prescott in the course of his cross-examination, he confirmed that he had written his witness statement but admitted that it included contributions from others. When pressed on this point he could not identify who had contributed but he was sure that Dr. Fenster, who in my view was far from impartial, would have done so. However, the overall impression I gained of Mr. Sawyer during his cross-examination was that the views he gave were his own even though he might have felt uneasy about this at times. Therefore, I am prepared to accept Mr. Sawyer's evidence as that of an independent expert who was trying to assist me.
- 14 Mr. Margalit is the Executive VP of Technologies and CTO at Aladdin Knowledge Systems Ltd. and has been with this company since 1998. In his witness statement he deals with an exhibit annexed to Dr. Fenster's witness statement made on 8 December 2003. This is something I will need to consider later in this decision.
- 15 Mr. Kuan is the Director of Sales and Business Development for Trek. I found Mr Kuan helpful, straightforward and open when he was giving evidence under cross-examination. He is very knowledgeable about so-called "ThumbDrives" manufactured and sold by Trek and yet he recognized the limits of his

knowledge. A sample of a ThumbDrive was exhibited with Mr. Howe's witness statement and it seems that its name derives from the fact that it is about the size of a thumb. In my view there is no reason why, if necessary, I should not take at face value Mr. Kuan's evidence concerning the features of Trek's ThumbDrives and the impact this product had following its public launch in February 2000.

- 16 Professor Kim has an impressive curriculum vitae which documents more than 27 years teaching, working and researching in the fields of electrical engineering and computer engineering. He obtained a doctorate in electrical engineering from the University of Wisconsin-Madison where he was a Research, Project and Teaching Assistant from 1976 until 1982. He moved to the University of Washington in 1982 and is currently Professor and Chair in the Department of Bioengineering and Professor of Electrical Engineering. In his first witness statement Professor Kim states that he is a fellow of the Institute of Electrical and Electronics Engineers (IEEE) and that he was President Elect of the IEEE/EMBS (the IEEE/Engineering in Medicine and Biology Society) at the time of making this statement in June 2004. In the same witness statement he mentions that he will be President of the IEEE/EMBS in 2005 and 2006. Despite this clear written statement, when examined by Mr. Prescott Professor Kim confirmed that he was President of the Institute of Electrical and Electronic Engineers of America. This in fact was not true and the mistake was acknowledged by Trek's patent attorney after the hearing when it had been picked up by M-Systems. In a letter, dated 20 July 2005, M-Systems' patent attorney suggested that Professor Kim had exaggerated his evidence to Trek's benefit on the issue of his professional status. In my view there is no doubt that a mistake was made but I am not inclined to make a mountain out of a molehill. Importantly from my point of view is that Professor Kim has considerable knowledge and expertise in the fields of electrical engineering and computer engineering. This knowledge and expertise was on display during his cross-examination and I found him generally helpful, thoughtful and precise. When Mr. Platts-Mills attempted to tease out the teaching contained in some of the prior art relied on by M-Systems, I am satisfied that Professor Kim's opinions and the reasons for them were based on his own, unbiased view. However, there is in my view a problem with some of Professor Kim's evidence. In his first witness statement he characterises Trek's invention by reference to Trek's ThumbDrive and this perception of the invention appeared to colour his opinions when he was cross-examined. I do not think this was a deliberate attempt by Professor Kim to mislead me but clearly Trek's product can have no bearing on how the application and the patent should be construed. Thus, I must treat Professor Kim's evidence in relation to what the application and the patent teach with caution.
- 17 Steven Howe is a partner in Lloyd Wise. He was very nervous when cross-examined and I also found him to be defensive and evasive, particularly on the matter of the content and accuracy of his written evidence. In a first witness statement Mr. Howe identifies 113 documents and products which he states were cited in connection with the patent in the prosecution of corresponding patents and applications in other countries and in legal proceedings. Mr. Howe states that his purpose for doing this is to demonstrate how, despite the plethora of prior art that has been cited, none teaches the concept sought to

be claimed by Trek and none teaches anything of equivalent value. M-Systems viewed this first witness statement of Mr. Howe with considerable suspicion, suspecting some ulterior motive. Mr. Platts-Mills requested further information about the origin of the numerous references identified by Mr. Howe and Mr. Howe addressed this request in a second witness statement. This second witness statement reveals that some of the documents originally identified were not in fact cited against the family of applications or patents, which includes the present application and patent, but were cited against different families of applications or patents. During the course of the hearing Mr. Howe's evidence was overtaken by events in that Mr. St. Ville produced a "Simkins List" of 29 pieces of prior art. Therefore, I do not need to consider Mr. Howe's written evidence further in this decision.

The issues

18 I can now turn to the issues that I must decide. At the hearing the outstanding issues were:

- (a) whether the patent as granted discloses matter extending beyond that disclosed in the application as filed;
- (b) whether the specification of the patent as granted is insufficient;
- (c) whether the amendments requested under section 75 of the Act are allowable; and
- (d) whether the patent as granted or as amended claims an invention which is new and involves an inventive step.

I will deal with these issues in turn but to a large extent my decision depends on how I construe the application and the patent. This then must be my starting point.

Construction

The law on construction

19 Mr. Prescott took great care to ensure that I appreciated the need to construe the application and the patent in context. In making this point he took me to *Kirin-Amgen Inc v Hoechst Marion Roussel Ltd* [2005] RPC 9 in which Lord Hoffman commented at paragraphs 32 to 34 (Mr. Prescott's emphasis):

- "32 Construction, whether of a patent or any other document, is of course not directly concerned with what the author meant to say. There is no window into the mind of the patentee or the author of any other document. Construction is objective in the sense that it is concerned with what a reasonable person to whom the utterance was addressed would have understood the author to be using the words to mean. Notice, however, that it is not, as sometimes said "the meaning of the words the author used", but rather what the notional addressee would have understood the author to mean by using those words. The meaning of words is a matter of convention, governed by rules, which can be found in dictionaries

and grammars. **What the author would have understood to mean by using those words is not simply a matter of rules. It is highly sensitive to the context of, and background to, the particular utterance.** It depends not only upon the words the author has chosen but also upon the identity of the audience he is taken to have been addressing and the knowledge and assumptions which one attributes to that audience.

33 In the case of a patent specification, the notional addressee is the person skilled in the art. He (or, I say once and for all, she) comes to a reading of the specification with common general knowledge of the art. And he reads the specification on the assumption that its purpose is to both to describe and to demarcate an invention – a practical idea which the patentee has had for a new product or process – and not to be a textbook in mathematics or chemistry or a shopping list of chemicals or hardware. It is this insight which lies at the heart of “purposive construction”. If Lord Diplock did not invent the expression, he certainly gave it wide currency in law. But there is, I think, a tendency to regard it as a vague description of some kind of divination which mysteriously penetrates beneath the language of the specification. Lord Diplock was in my opinion being much more specific and his intention was to point out that a person may be taken to mean something different when he uses the words for one purpose from what he would be taken to mean if he was using them for another. The example in the *Catnic* case was the difference between what a person would reasonably be taken to mean by using the word “vertical” in a mathematical theorem and by using it in a claimed definition of a lintel for use in the building trade.”

20 Mr. Platts-Mills agreed that *Kirin-Amgen* defines the correct approach to construction. However, whilst he agreed with Mr. Prescott that a patent should be construed in context, he made the point that one simply has to read the patent in context, giving the language used its natural meaning in that context. He suggested that when wording of high generality has been used, one cannot ignore this fact. In his view such wording would naturally be taken to indicate that there was an intention to seek to claim an alleged invention in very general terms. Only if, unusually, the rest of the patent or the context dictated differently would such wording be interpreted differently. Mr. Platts-Mills found support for his view in paragraph 34 of *Kirin-Amgen*:

“34 “Purposive construction” does not mean that one is extending or going beyond the definition of the technical matter for which the patentee seeks protection in the claims. The question is always what the person skilled in the art would have understood the patentee to be using the language of the claim to mean. And for this purpose, the language he has chosen is usually of critical importance. The conventions of word meaning and syntax enable us to express our meanings with great accuracy and subtlety and the skilled man will ordinarily assume that the patentee has chosen his language accordingly. As a number of judges have pointed out, the specification is a unilateral document in words of the patentee’s

own choosing. Furthermore, the words will usually have been chosen upon skilled advice. The specification is not a document *inter rusticos* for which broad allowances must be made. On the other hand, it must be recognized that the patentee is trying to describe something which, at any rate in his opinion, is new; which has not existed before and of which there may be no generally accepted definition. There will be occasions upon which it will be obvious to the skilled man that the patentee must in some respect have departed from conventional use of language or included in his description of the invention some element which he did not mean to be essential. But one would not expect that to happen very often.”

- 21 There is no doubt in my mind that I must construe the application and the patent purposively to ascertain what they disclose and it seems to me from Lord Hoffman’s comments in *Kirin-Amgen* that “the purpose” comes from “the context”. This emerges clearly in my view from Lord Hoffman’s opinion of what Lord Diplock had in mind in relation to purposive construction:

“Lord Diplock was in my opinion being much more specific and his intention was to point out that a person may be taken to mean something different when he uses the words for one purpose from what he would be taken to mean if he was using them for another.”

- 22 Thus, I must consider what the skilled person in the art, armed with his common general knowledge, would have understood the author to mean by the words he used. Taking Mr. Platts-Mills’ point, when wording of high generality has been used, I need to decide whether the person skilled in the art would understand the invention as operating at a corresponding level of generality.

The teaching of the application

- 23 It is almost always the case that a patent specification sets the context within which the invention was devised and the advantage or advantages it seeks to provide over what has been done before. The present application is no exception.
- 24 From the title and the opening paragraph it is apparent that the invention relates to a portable data storage device. The following two paragraphs go on to explain that conventional data storage devices fall into two distinct categories. The first category or type is solid-state memory devices which are generally fitted within a computer. It is stated that these devices are not intended to be removable or portable so that they may be used on different computers, for example to permit the transfer of data from one computer to another computer. The second type or category is characterized as surface based data storage devices, such as magnetic disks and CD ROMS. The application explains that this second category of device requires a mechanical drive mechanism to be installed in or coupled to a computer to permit the data on the device to be read by the computer. It is also noted that surface based memory devices are limited by their surface area and that such devices in combination with drive mechanisms needed to read them are generally bulky and/or delicate.

25 After a statement, which identifies the features of the portable data storage device in accordance with the invention, there is a paragraph which sets out the advantage of the device. It is stated that the invention makes it possible to provide a portable data storage device which may be coupled to a computer having a serial bus port and which does not include moving parts or require a mechanical drive mechanism to read the stored data. After describing an embodiment of the invention, the final paragraph of the description highlights the advantages of this embodiment as follows:

“An advantage of the device 10 described above is that it provides a portable data storage device for a computer which does not require a mechanical operated reading/writing device. In addition, the device 10 has no moving parts. This enables to (*sic*) data storage device 10 to be more compact than conventional portable data storage devices.”

26 A schematic block diagram of an embodiment of the portable data storage device according to the invention is shown in Figure 1 of the drawings provided in the application:

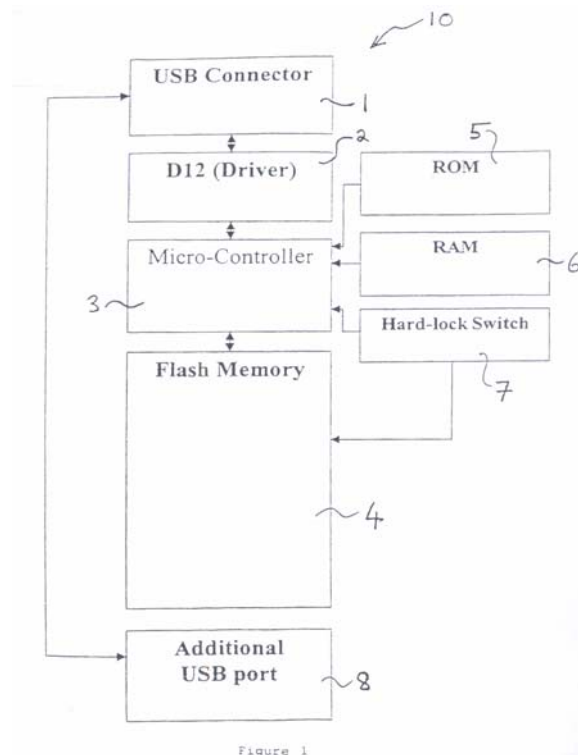


Figure 1

The accompanying description describes a data storage device (10) which includes a USB plug (1) coupled to a USB interface device (2). This interface device is coupled to a micro-controller (3) which is coupled to a flash memory (4) and which manages password encryption and decryption, data flow control and USB protocol. The flash memory 4 can store software for installation on a computer and is typically divided into a number of different zones, for example two zones, each having a unique password. If the device 10 is supplied with packaged software, the software serial number can be set in one zone as a password to permit a user to access and install the software. The other zone, which can be used typically for storing a user's data, may have a separate password. The micro-controller includes a read only memory (ROM) (5) which stores a program to control the operation of the micro-

controller also includes a random access memory (RAM) (6) which is a temporary storage area to permit functioning of the micro-controller. A manual switch (7) allows data to be written to the flash memory in a first position and prevents data being written to the flash memory in a second position. The description also refers to a USB socket (8) that is coupled directly to the USB plug (1) and permits other USB devices to be coupled to the USB via the device (10).

- 27 The description of Figure 1 describes the connections between the USB plug and certain other components of the illustrated device in the following terms (my emphasis):

“..... a USB plug 1 which is **coupled to** a USB interface device 2. The USB interface device 2 is **coupled to** a micro-controller 3 which is **coupled to** a flash memory 4.”

”The device 10 also includes a USB socket 8 that is **coupled directly** to the USB plug 1 and permits other USB devices to be **coupled to** the USB via the device 10.”

- 28 There are three further figures in the application. Figure 2 is stated to be a flow diagram showing the initial setup of the data storage device by a software supplier. Figure 3 is described as a flow diagram showing the initial setup of the data storage device by an end user. The last figure, Figure 4, is stated to be a flow diagram showing operation of the data storage device. The description of the initial set up procedure, depicted in Figure 2, states (my emphasis):

“Firstly, **the plug 1 of the device 10 is plugged into 20 to a USB socket** on a computer. After **the device 10 has been plugged into the USB socket** on the computer, a communication is established 21 between the computer and the device.”

Similarly, the description of the end user setup procedure of Figure 3 states (again my emphasis):

“To set-up the password for zone 2 the user **plugs in 20 the device 10 into a USB port** on the computer and

and the description of the operation of the data storage device, depicted in Figure 4, states (my emphasis):

“....., when a user **plugs in 20 the device 10 to a USB port** on a computer,

The final stage of the procedure, depicted in Figure 4, is shown as “Plug Out” and the corresponding bit of the description states (my emphasis):

“ and the device 10 may then be **removed 45 from the USB socket** on the computer.”

- 29 The original application included eight claims where claims 2 to 8 were dependent on claim 1:

- “1. A portable data storage device comprising a coupling device for coupling to a computer serial bus, an interface device coupled to the coupling device, a memory control device and a non-volatile solid-state memory device; the memory control device being coupled between the interface device and the memory device to control the flow of data from the memory device to the coupling device.”

The issues on construction

- 30 During the prosecution of the application claim 1 was amended and to understand the issues that arise on construction it is helpful to quote this claim as granted (my emphasis):

- “1. A portable data storage device which can be **directly** plugged into a USB socket of a computer and **which is operative to function as an alternative to a magnetic disk or CD-ROM**, and **which is capable of storing software for installation to the computer or of receiving and storing user’s data present in the computer** and which comprises a coupling device **which is a USB plug** for coupling **directly** to a USB socket on a computer, an interface device coupled to the USB plug, a memory control device and a non-volatile solid-state memory device; the memory control device being coupled between the interface device and the memory device to control the flow of data from the memory device to the USB plug.”

- 31 In its counterstatement Trek states that references to “directly plugged” and “coupling directly” mean that a first device is physically connected to a second device without an intervening cable. Trek goes on to submit in its counterstatement (my emphasis):

“.... the Patent teaches one skilled in the art of external memory devices a portable memory device having an **integrated** USB plug for **directly** connecting to the USB socket on a computer **without an intervening cable.**”

and with reference to Figure 1 (again my emphasis):

“Thus, the patent teaches that USB plug 1, the USB interface device 2, microcontroller 3 and flash memory are to be coupled together, **i.e., the various components (IC chips, USB plug, switch, etc.) are to be placed on the same printed circuit board (PCB)** and connected electrically by the leads on the PCB.”

- 32 A further issue of construction arises from the statement in claim 1 of the patent that:

“The device is operative to function as an alternative to a magnetic disk or CD-ROM, and which is capable of storing software for installation to the computer or of receiving and storing user’s data present in the computer”

Trek argues in its counterstatement that it is apparent from the application that

the device is designed to serve as a mass storage device for storing and transporting large data files. In other words the portable data storage device of the invention is designed to replace or to function as an alternative to the traditional mass storage devices, such as magnetic disks and CD-ROMS.

The skilled addressee

- 33 Before I consider what the application teaches, I need to establish who the skilled addressee would be in this case. In his submission to me at the hearing Mr. Prescott advocated that I should construe the application and the patent through the eyes of someone who makes a living by designing peripheral equipment for computers. I understood Mr. Platts-Mills to share this view but he made the additional point that the skilled addressee would go to the USB Specification Version 1.1, dated 23 September 1998, for guidance when faced with the application and patent. In my opinion this view of the skilled addressee is somewhat too narrow and I consider that the skilled addressee would be more generally someone with knowledge of the design of such peripherals. However, I do accept Mr. Platts-Mills' point that the skilled addressee would be aware of and recognize the importance of the USB Specification when dealing with USB peripherals.

A compact, unitary device without a cable or with only a stubby cable?

- 34 At the hearing before me Mr. Prescott developed the submissions in Trek's counterstatement by arguing that the application teaches a compact, unitary device without a cable or with only a stubby cable for connection to a USB socket on a computer. Mr. Platts-Mills on the other hand took the view that the application does not teach, unequivocally or otherwise, a unitary device without a cable or with only a stubby cable. Moreover, in his view there is no real teaching as to the size of the device, other than that it is portable.
- 35 The USB Specification is a lengthy technical document but fortunately I do not need to consider it in its entirety. Mr. Platts-Mills' main interest in it was that it shows that at the relevant time USB connection was regarded as a cable standard. This is consistent with Professor Kim's first witness statement in which he states that there is no suggestion in this version of the USB Specification of a USB device being connected to a USB host using anything other than a captive or detachable cable. During the course of his cross-examination Mr. Sawyer also described the use of USB cables as ubiquitous.
- 36 Section 6.2 of the USB Specification describes the Keyed Connector Protocol for USB devices, which in essence is the standard arrangement for connecting USB devices to their host computers:

"To minimize end user termination problems, USB uses a "keyed connector" protocol. The physical differences in the Series "A" and "B" connectors insure proper end user connectivity. The "A" connector is the principle means of connecting USB devices. All USB devices must have an "A" connector. The "B" connector allows device vendors to provide a standard detachable cable. This facilitates end user cable replacement. Figure 6-1 illustrates the keyed connector protocol."

Figure 6-1 illustrates "A" connectors or plugs which are stated to be always

oriented upstream towards the host system.

37 When cross-examined Professor Kim confirmed that adopting the USB specification provides a standard way of connecting peripherals to a computer. Thus, in my view the skilled addressee reading the application would identify the plug 1 shown in Figure 1 as a series “A” plug or connector capable of coupling directly with a series “A” receptacle or socket on a computer. It follows in my view that the application teaches that the plug 1 of the USB device is capable of being directly and physically plugged into a USB socket of a computer. In other words there is no need to provide a cable to connect the USB plug 1 to a USB socket on a computer. However, what the application teaches the skilled addressee about how the plug 1 is coupled to the remainder of the portable data storage device is a different matter which I will need to consider in a moment.

38 Before I leave this point I should briefly deal with the only reference in the application of two components of the device being directly coupled to one another:

“The device 10 also includes a USB socket 8 that is **coupled directly** to the USB plug 1 and permits other USB devices to be coupled to the USB via the device 10.”

In his submissions to me in respect of this reference to the USB socket 8 being directly coupled to USB plug 1, Mr. Platts-Mills referred me to Dr. Fenster’s first witness statement in which Dr. Fenster explains that in USB there is no possibility of connecting two inputs in parallel without intervening circuitry under the USB protocol. Thus, the normal method of making a direct connection between the USB plug 1 and the USB socket 8 would be via additional circuitry. This aspect of Dr. Fenster’s evidence was not challenged when he was cross-examined and I accept it. Mr. Platts-Mills also referred me to paragraph 4.3.1 of the USB Specification where it is stated (my emphasis):

“Each USB segment provides a limited amount of power over the cable. The host supplies power for use by USB devices that are **directly connected**.”

and then to another passage in the USB Specification at paragraph 5.2.4 (again my emphasis):

“While devices physically attach to the USB in a tiered, star topology, the host communicates with each logical device as if it were **directly connected** to the route port.”

He explained that the term “directly” in this context describes how the host computer sees USB devices. I think this must be right and in my opinion the skilled addressee would construe the reference to “coupled directly” in the application in this way. Thus, it seems to me that in context this reference in the application does not have any bearing on how the USB plug and the USB socket are **physically** coupled to one another.

39 Having construed what the application teaches about the connection between

(a) the USB plug of the device and a USB socket on a computer and (b) between the USB socket 8 and the USB plug 1, I need to consider how the skilled addressee would view the couplings between other components of the device itself, and in particular the coupling between the USB plug 1 and the USB interface device 2 and between the micro-controller 3 and the flash memory 4.

- 40 Whilst the application makes no mention whatsoever to the use of a connecting cable between the plug 1 and interface device 2 or for that matter between any of the components of the device, I do not believe I can draw any definite conclusion from this. It would be ridiculous to expect a patent specification to mention every feature that an invention does not have. Thus, I could not safely conclude that the device includes one or more connecting cables simply because there is nothing in the specification to the contrary. I also recognise that it is common practice not to describe every last non-essential detail of an invention in a patent specification. It is enough to describe the invention in sufficient detail to enable the skilled addressee to carry out the invention. Therefore, the absence of any reference to a cable does not necessarily mean that the device could or does not include a cable.
- 41 Figure 1 is described in the specification as a schematic block diagram of a portable data storage device and in Mr. Prescott's opinion shows a device 10 having all of its components mounted on a printed circuit board, as previously stated in Trek's counterstatement. Mr. Platts-Mills refuted this and submitted that it is not possible to derive directly and unambiguously from this figure a disclosure of a one piece portable data storage device having an integrated USB plug. In particular, he observed that there is no indication in Figure 1 that the USB connector 1 is, or is not, connected by cable to the USB interface device 2. To reinforce his view Mr. Platts-Mills pointed out that Figure 1 does not show the components of the device "boxed in" as is conventional when draughtsmen want to represent a unitary construction. In my view the schematic nature of this figure itself provides no clues about the physical form of the device and in particular whether it is a unitary device without a cable. Moreover, in terms of the relationships between the components of the device, such as between USB connector 1 and the USB interface device 2 and between the micro-controller 3 and the flash memory 4, the description of Figure 1 merely states in general terms that these components are "coupled" to each other.
- 42 In response to a question from Mr. Platts-Mills, Professor Kim stated that as he read the specification, it was absolutely clear to him that it teaches a unitary memory device with an integrated USB plug. When pressed by Mr. Platts-Mills he responded that those reading the application, including the super majority of his former post-graduate students, would understand that the application teaches a unitary data storage device with an integrated "A" plug. He held to this view even though he accepted that USB was known as a cable standard. Professor Kim went on to observe that one of the key innovations of the application was thinking outside the box and asking the question "Do we really need a cable?". He illustrated this thinking by reference to a laptop computer which in his view would not demand a long cable. He also saw no inconsistency between the concept of a cable-less USB device and the USB Specification because the latter did not specify a minimum cable length and

hence the length of the cable could vanish to zero. Mr. Sawyer's evidence under cross-examination was that the application teaches a device with a cable, even when used with a laptop, because everything around him at the relevant time led him to believe that cables were the right way of doing things.

- 43 I have already expressed the reservation I have about relying on Professor Kim's opinion and his evidence on what the application teaches because it seems to me to be based not so much on what is disclosed in the application but on his appreciation of Trek's ThumbDrive product. Moreover, I can find nothing in the application that would suggest to the skilled addressee that the portable memory device was designed particularly with laptops in mind where a cable could be more of an encumbrance than a help. Indeed there is nothing which leads me to believe that the application is the result of Trek thinking outside the box and recognizing that a cable is unnecessary. Therefore, I do not attach any weight to Professor Kim's evidence on this point. On this question of whether the device does or does not have a cable I am inclined to give more weight to Mr. Sawyer's view of the application which is based on his experience of everything around him.
- 44 Mr. Prescott recognised that parallels might be drawn between the present data storage device and an electric kettle, which uses a cable for connection to a power socket, in that it is normal to refer to plugging in a kettle. However, in his view this parallel is not borne out by the description of the portable data storage device and any similarity with a kettle disappears when account is taken of the reference to removing the device from a USB socket since it is not normal to refer to "removing the kettle from the wall socket". He went on to argue that if the device was removed from a USB socket, it must have been introduced, that is plugged straight in, in the first place. Professor Kim also addressed this kettle point in his first witness statement and concluded, like Mr. Prescott, that it is the device itself, including the USB plug, which is "removed from" and therefore must be introducible or insertable into the USB socket of the computer.
- 45 Mr. Platts-Mills on the other hand submitted that it cannot be denied that a "device" includes a cable (in other words the cable is a part of the device) when, for example, that device is a computer memory having a plug coupled to the remainder of the device by a cable. He went on to observe that such a device is plugged into a socket by taking the plug and putting it in the socket, and the device is removed from the socket by taking the plug and removing it from the socket. He drew my attention specifically to Figure 4 of the specification which is a flow diagram showing the operation of the data storage device and which labels the step of removing the device from the USB socket on the computer as "Plug Out". Thus, in Mr. Platts-Mills view there is nothing in the expressions "plugged into" and "removed from" to suggest that they are not applicable when referring to a device with a cable. This was also Mr Sawyer's view when cross examined by Mr. Prescott. According to Mr. Sawyer the words "unplugged" or "removed" could be used interchangeably in relation to computer peripherals with cables. Moreover, bearing in mind that there is no limitation in the USB Specification as to the shortness of the cable, Mr. Platts-Mill made the point that a data storage device with a 1 to 4 inch cable would possess the characteristics said by Trek to be beneficial in terms of size and portability.

- 46 In his skeleton argument Mr. Platts-Mills also refers to passages in the USB Specification which deal with the attachment and removal of USB devices. These passages are found at paragraphs 4.6.1 and 4.6.2 (my emphasis):

“4.6.1 Attachment of USB Devices

All USB devices attach to the USB through ports on specialized USB devices known as hubs. Hubs have status indicators that indicate the attachment or **removal** of a USB device on one of its ports.

4.6.2 Removal of USB Devices

When a USB device has been **removed** from one of a hub’s ports, the hub disables the port and provides an indication of the device **removal** to the host. The **removal** indication is then handled by appropriate USB System Software. If the **removed** USB device is a hub, the USB System Software must handle the **removal** of both the hub and all of the USB devices that were previously attached to the system through the hub.”

Mr. Platts-Mills also considered it highly semantic to suggest, as Mr. Prescott had done, that if something has been removed, then it must have been introduced in the first place. In his view the expression “plugged into”, which is to be found in the application, and the expression “introduced” do not have the same meaning. On this I agree with Mr. Platts-Mills and I will explain why later in this decision.

- 47 Mr. Prescott responded to Mr. Platts-Mill’s observation concerning the references in the USB Specification to the removal of USB devices by opining that the context, in which the term “removed” is used in the application, is different from the context in the USB Specification. More particularly, according to Mr. Prescott, in the application the term relates to the physical removal of the device from a USB socket on a computer whereas in the USB specification the term has an electrical context.
- 48 Dealing firstly with the kettle analogy, I agree with Mr. Prescott that when removing the plug of an electric kettle from a power socket it would be normal to say “I have unplugged the kettle” rather than “I have removed the kettle”. I also note that Mr. Sawyer took the same view when questioned by Mr. Prescott. However, I am not persuaded that this analogy is valid in the context of computer peripherals and of course I must construe the application in context. The application uses the expressions “removed” and “plug out” to describe the same operation in relation to the USB device and this is consistent with Mr. Sawyer’s evidence that in the context of computer peripherals these expressions are used interchangeably. It is also clear to me from the USB Specification that the expression “removed” is apt in the context of unplugging the cable of a USB device from a host computer and is not restricted to the electrical context as suggested by Mr. Prescott. I cannot therefore accept Mr. Prescott’s submission that the reference in the application to removing the device from the USB socket of a computer is the clincher that establishes that the device does not have a cable or has just a stubby cable.
- 49 Mr. Prescott also deduced from the reference that the device is removed from

the USB socket that the device must be a small one. Trek address the size of the device in its counterstatement where it states that the application refers to a device, which is designed to be portable and less bulky than conventional portable mass storage devices, such as magnetic disks and CD-ROMs, and as a result the skilled addressee would understand that the components of the device are to be fitted into a single physical module to achieve this design goal.

During the hearing Mr. Platts-Mills exhibited a USB Flash Drive, which has a similar appearance to that of Trek's ThumbDrive and which came packaged with an approximately one metre USB cable. Mr. Prescott took this exhibit and invited Mr. Kuan to try and wrap the cable around the Flash Drive so that it would fit within the footprint of a floppy disk. Mr. Kuan tried but could not do it even though when in the package the cable did fit within the footprint of a floppy disk.

50 Professor Kim addresses the size of Trek's invention in his first witness statement:

“..... Trek's invention is truly portable due to its compact design and integrated USB plug. The ThumbDrive is small enough to fit inside the palm of the user's hand. In addition, the ThumbDrive's integrated USB plug eliminates the need for any bulky cables, drives or readers since the ThumbDrive simply and directly plugs into the USB port of the host computer.”

51 On the question of the size of the portable data storage device Mr. Platts-Mills took the view that beyond portability imposing some entirely unspecified size limitation, there is nothing in the application to support any size limitation. In his opinion reliance on a comparison with the acknowledged prior art devices was also misplaced. He explained that at best it could be said by incorporating a solid state memory which enables a user to do away with the relatively bulky drive mechanism, typically used with magnetic disks or CD ROMs, the device would be adequately portable.

52 In my opinion the discussion in the application of the characteristics of the conventional solid state type of device begins to give an indication of what is meant by “portable” and “compact” as used in the application. The application explains that conventional memory devices, which are generally fitted within the computer, are not intended to be removable or portable. Mr. Sawyer accepted, as I do, that this was a fair statement in so far as it concerns how the man in the street would use a computer.

53 The second category of conventional data storage device discussed in the application is surface based storage devices, such as magnetic disks and CD-ROMs. Whilst the specification is silent as to their portability, Mr. Sawyer also accepted, as again I do, that they do provide this particular advantage. However, from the application we learn that this comes at a cost because surface based storage media require bulky and relatively delicate mechanisms to permit them to be used.

54 Set against this background I note that Mr. Sawyer thought it fair to say that the author of the application alleges three advantages for the device of the invention. The first is that the device can be coupled to the USB, the second is

that there are no moving parts and the third is that it does not rely on a bulky mechanical drive to read data from the device. Mr. Sawyer also accepted that the application conjures up the mental picture of a compact device but he was non-committal about the suggestion put to him by Mr. Prescott that the device must be more compact than a floppy disk or CD-ROM. In addition, he did not accept that the presence of a cable would mean that the device is less compact or pocketable when compared with the footprint of a floppy disk.

- 55 In so far as the application sets out shortcomings associated with conventional devices, I consider it reasonable to assume that the invention seeks to provide a solution to them. Indeed, the fifth paragraph of the description sets out the advantage provided by the invention, and the final paragraph of the description sets out an advantage of the described embodiment. From these paragraphs we learn, in line with Mr. Sawyer's view, that the data storage device is portable, can be coupled to a USB port of a computer, does not require a mechanically operated reading/writing device and has no moving parts. According to the final paragraph it is stated that the latter two features enable the data storage device to be more compact than conventional portable data storage devices. It is not as clear as it could be whether this comparison is with, for example, a CD-ROM alone or with, for example, a CD-ROM in combination with its drive mechanism. However, in so far as a distinction is made in the introduction between surface based storage devices and their drive mechanisms, I am prepared to accept that the comparison is with conventional portable data storage devices, for example a CD-ROM, without their drive mechanisms.
- 56 To that end I appreciate Mr. Kuan's attempt to demonstrate that the USB Flash Drive and its cable, exhibited by Mr. Platts-Mills, could fit within the footprint of a floppy disk. Although he was unsuccessful, I believe he successfully demonstrated that the Flash Drive and its cable could be bundled such that they would easily fit within a jacket pocket. However, this little bit of theatre, comparing the footprint of an essentially three dimensional combination of a commercially available USB Flash Memory device and its 1 metre removable cable, with the footprint of an essentially two dimensional floppy disk, does not really help me. I have already criticised Professor Kim's evidence because it is based on a comparison with Trek's actual ThumbDrive and I must not fall into the same trap. My conclusions must be based solely on how a skilled addressee would construe the application.
- 57 On this basis and in the light of the evidence I accept that the device is compact and has the potential to be more compact than conventional portable data storage devices, examples of which are floppy disks and CD-ROMs. However, by accepting this I should add that I do not accept Mr. Prescott's submission and the point he tried to draw from Mr. Sawyer that the illustrated data storage device must inherently be small, that is more compact than conventional portable data storage devices. I also do not accept Professor Kim's evidence that Trek's invention is small enough to fit inside the palm of the user's hand. Here the Professor's evidence in my view is once again based more on his knowledge of Trek's ThumbDrive than on what is taught by the application. I am also not persuaded on the evidence before me that the design goal to produce a compact device requires that the components of the device must be fitted into a single physical module. Thus, on this question of

size all that the application teaches is a device which is both compact and portable. Moreover, in my view the presence of a cable would not mean that the device could not have these characteristics.

- 58 I can therefore conclude that the skilled addressee would not read the application as teaching a unitary device without a cable or with just a stubby cable. He would read the various references to the components of the device being “coupled” to one another at the corresponding level of generality to embrace any suitable means for connecting the components. Moreover, in my view the skilled addressee would also take from the application an appreciation of a USB data storage device which is portable and compact and which addresses the acknowledged shortcomings associated with conventional data storage devices, such as magnetic disks and CD ROMs. However, he would not expect the requirement of compactness to mean that the device has to fit within the footprint of a floppy disk. Moreover, I believe it is worth noting that Mr. Kuan Mun Kwong states in his evidence that Trek’s ThumbDrive range was launched in February 2000, just a few days after it filed the application, and that this device was in development prior to that. Therefore, Trek could have illustrated the “form factor” of its ThumbDrive in its application if it were essential to the invention but it did not do so.

A mass storage device for storing and transporting large data files?

- 59 Mr. Prescott’s starting point in relation to the storage capacity of the device was that the application teaches the skilled addressee that the portable data storage device of the invention is designed to replace or to function as an alternative to the traditional data storage devices, such as magnetic disks and CD-ROMS. Thus, in his view the data storage device is a mass storage device. Support for characterising the device in this way comes from Professor Kim’s first witness statement in which he describes floppy disks, which have a capacity of 1.44 MB, as mass storage devices. However, I note that Mr. Prescott did not seek to quantify the storage capacity of the device in terms of megabytes and in his view the exact capacity of the device does not matter. What is important in his submission is what the device can do. Mr. Prescott also submitted that it is clear that the intention behind having a portable device is so that it may be used on different computers, for example, to permit the transfer of data from one computer to another computer.
- 60 Mr. Platts-Mills argued that the comparative reference to magnetic disks and CD-ROMS is an entirely arbitrary and unjustified selection of just some examples of prior art memory devices. Moreover, he took the view that the application does not impose any restriction on the size of the memory except that a minimal amount of data can be transferred to and from the device. In his opinion it cannot be suggested that the memory of the device must be of a particular size merely on the ground that the device is an alternative to a magnetic disk.
- 61 In so far as magnetic disks and CD-ROMs are similar in that they are both surface based storage devices, they also have significant differences, not the least in respect of their storage capacity. Thus, I would not construe the comparison of Trek’s solid-state memory device with magnetic disks or CD-ROMs as imposing any particular constructional characteristic of these surface

based storage devices on Trek's device. I also note that when identifying the advantages of the portable data storage device of the invention, no emphasis is placed on its memory capacity, despite this being identified as one of the shortcomings of conventional surface based data storage devices. From this I conclude that whilst the memory capacity of the device of the invention is not constrained in the same way as magnetic disks and CD-ROMs are by their surface area, the advance provided by Trek's device does not rest on the size of its memory. Thus, I agree with both Mr. Prescott and Mr. Platts-Mills that the application leaves the size of the memory in terms of megabytes more or less open. I should add that I do not think it helps to re-characterise Trek's device as a mass memory device since I believe that in essence all that is required of it is that people should be able to use it as an alternative to the conventional surface based data storage devices, such as magnetic disks or CD-ROMs, acknowledged in the application.

62 The question then arises what is this use? I believe there was agreement between the parties that a magnetic disk is a read/write device and so can be used both to store software for installation to a computer and to receive and store data from a computer. However, there was a bit of a skirmish over what a CD-ROM can be used for. Mr. Prescott sought to persuade me that a CD-ROM could be used for the same purposes as a magnetic disk. He submitted that any device which is capable of storing software must be capable of receiving and storing data because so far as the device is concerned, it does not know what is data and what is software. Mr. Platts-Mills took the view that it was not open to Trek to say that CD-ROM does not mean exactly what it says, that is a read only memory. Mr. Platts-Mills submitted that his view of a CD-ROM sat comfortably with a statement in the application, which indicated that Trek's own device could be read only (my emphasis):

“Preferably, the non-volatile solid state memory device may be a read/write memory device, such as a flash memory device.”

63 In his first witness statement Professor Kim is clear that the compact disk (CD-ROM) includes the re-writable compact disk (CD-RW) and this statement was not challenged during the course of his cross-examination. Moreover, Mr. Sawyer stated under cross-examination that sometimes the term “CD-ROM” is used, albeit incorrectly in his view, to describe read/write CDs. In the light of this evidence I believe I must accept that the skilled addressee would construe the reference in the application to “CD-ROM” as including both read/write CDs and read only CDs. It follows that the skilled addressee would see nothing inconsistent with a statement that a CD-ROM is capable of both storing software for installation to a computer and receiving and storing data present in a computer.

64 When describing the content of the application I mentioned that it acknowledges conventional solid-state memory devices which are generally fitted within a computer and are not intended to be portable. It is stated that as a consequence such devices cannot be used to transfer data from one computer to another. I do not believe it was in dispute that magnetic disks and CD-ROMs (as I have construed the latter expression) on the other hand are portable and can be used for this purpose. Although Mr. Platts-Mills did not accept the point, in my opinion the skilled addressee reading the application in

context would understand that the portable data storage device of the invention would also be capable of transferring data from one computer to another.

65 Thus, in a nutshell I find that all that the skilled addressee could derive from the application in terms of the memory capacity of the device is that users would expect to be able to use it as an alternative to, for example, a portable magnetic disk or CD-ROM in order, as specifically stated in the application, to install software to a computer or to receive and store data from a computer. To this end the memory of the device may be read/write or read only. Moreover, I have concluded that in read/write form the device would be capable of transferring data from one computer to another.

Summary of conclusions on construction

66 I have found that the application teaches that the plug 1 of the USB device is capable of being directly and physically plugged into a USB socket of a computer. Moreover, the generality of the language used is such that there is no teaching of a device in which the plug 1 is integrated with the other components or is coupled to the remainder of the device by a stubby cable. Indeed, in my view the application imposes no restriction on how the plug is coupled to the remainder of the device or for that matter how the other components of the device are coupled to one another. There is also no limitation on the physical size of the device other than it must be compact and portable. I also found that there is an expectation that users could use device 10 as an alternative to a conventional portable data storage device, such as a magnetic disk or CD ROM, but that this imposes no specific limits to the size of the device's memory. I have also concluded that the device could be a read/write device or a read only device.

Does the patent as granted add new matter?

67 I can now turn to the question whether the patent discloses matter extending beyond that disclosed in the application.

The law on added matter

68 The relevant provision of the Act is found in section 72(1)(d):

“72.-(1) Subject to the following provisions of this Act, the court or the comptroller may on the application of any person by order revoke a patent for an invention on (but only on) any of the following grounds, that is to say –

.....

(d) the matter disclosed in the specification of the patent extends beyond that disclosed in the application for the patent, as filed,
.....”

69 Mr. Platts-Mills referred me to *Bonzel (T.) and Anr. v. Intervention Limited and Anr. (No.3)* [1991] RPC 553 at page 574, which sets out the well known test for deciding if matter has been added (my emphasis) :

“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 granted.
- (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.**”

70 Whilst Mr. Prescott did not dismiss *Bonzel* he suggested that the test I should apply is that used in the European Patent Office, which means that I should consider whether a feature introduced by way of amendment is directly and unambiguously derivable from the application. As Mr. Prescott rightly pointed out Lord Hoffman made it very clear at page 200 in *Kirin-Amgen* that it is important that the United Kingdom should apply the same law as the European Patent Office (“EPO”) and the other Member States when deciding what counts as new for the purposes of the European Patent Convention (“EPC”). Of course the issue I need to consider here is not what counts as new but what counts as added matter and this led Mr. Prescott to refer to section 130(7) of the Act which states that section 72(1), amongst other provisions of the Act, is so framed as to have, as nearly as practicable, the same effects in the United Kingdom as the corresponding provisions of the EPC. Mr. Prescott continued by reminding me that the Court of Appeal in *A. C. Edwards Ltd. V. Acme Signs & Displays Ltd* [1992] RPC 131 quoted from the decision of the EPO Technical Board of Appeals in *Thomson-CST* (T151/84) [1998] E.P.O.R. 29 as follows (once again my emphasis):

“3. In order to determine whether or not the modification made to a claim extends the subject-matter of the patent application beyond the contents of the application as filed, it is necessary to find out whether the resulting overall modification to the contents of the application (whether by addition, modification or withdrawal) is such that **the information presented to the skilled man is not derived directly and unambiguously from that which the application contained previously, even taking account of the elements which are implicit to the skilled man** (Guidelines for Examination at the EPO, C-VI, 5.4). In other words, it is necessary to find out whether the new claim presented is supported by the original description.

3.1 In the case in point, the important thing is therefore not that a logical analysis of the text be carried out in order to determine whether or not the initial intention of the applicants was to limit the protection claimed to the particular combination of characteristics described and represented, but rather that it be discovered whether the skilled man reading the patent application as filed would consider that the characteristic under discussion, namely the presence of permanent magnets, is or is not a characteristic which is *indispensable* to the operation of the device described in the application.”

71 I see no significant difference between the approach set out in *Bonzel* and that referred to in *A. C. Edwards*. Indeed, it seems to me that when considering whether the matter allegedly added to the patent is clearly and unambiguously disclosed in the application, I must consider whether this matter is directly and unambiguously derivable from the application.

The alleged added matter

72 The alleged added matter arises from amendments made to claim 1 during prosecution of the application. I have already reproduced this claim, both as filed and as granted, and there is nothing to be gained by doing so again here. However, it is helpful to dissect the claim 1 of the patent and consider in turn those aspects which M-Systems allege to be added matter.

73 The first area of contention between the parties arises from the reference in claim 1 of the patent to:

*“A portable data storage device which can be **directly plugged into a USB socket of a computer** and which comprises a coupling device which is a USB plug for coupling **directly** to a USB socket on a computer, ...”*

I can deal with this point quickly. I heard various arguments that this reference somehow relates to how the USB plug is coupled to the USB interface device 2. I do not agree. This statement concerns how the device generally, the whole caboodle as Mr. Prescott described it at one point, and the USB plug in particular can be coupled to a USB socket on a computer. I have already concluded that on a proper construction the application teaches that the USB plug 1 and hence the device is capable of being directly and physically plugged into the USB socket of a computer. I therefore do not accept M-System’s argument that this statement in claim 1 of the patent constitutes added matter not disclosed in or derivable from the application.

74 The second area of contention concerns the reference in claim 1 of the patent to:

“A portable data storage device which is operative to function as an alternative to a magnetic disk or CD-ROM, and which is capable of storing software for installation to the computer or of receiving and storing user’s data present in the computer”

75 Again I can deal with this point quickly in the light of my previous conclusions on what the application teaches. As I have concluded above, the skilled addressee reading the application would appreciate that the portable data storage device of the invention is intended to be used as an alternative to conventional portable data storage devices, such as magnetic disks and CD-ROMs. Moreover, as specifically described in relation to the illustrated embodiment it would be capable of storing software for installation to a computer or of receiving and storing user’s data present in a computer. Therefore, in my view this amendment also does not add matter.

Conclusions on added matter

76 Therefore, I must reject wholly M-Systems' allegations that the patent as granted discloses matter extending beyond that disclosed in the application as filed. This is important because if I had found otherwise that would be the end of the matter. I would have to revoke the patent and there would be no way out for Trek.

Clarity and sufficiency

77 I can now move on to the second issue, raised by Mr. Platts-Mills, which concerns clarity and sufficiency. Mr. Platts-Mills did not address me on this matter at the hearing but he deals with it in his closing skeleton. In this skeleton he submits that lack of clarity gives rise to sufficiency problems and he finds support for this in *Kirin-Amgen* at paragraphs 121-131 where Lord Hoffman recognised that ambiguity meant lack of enablement because a person seeking to work the patent was unable to adjudge when they were successfully doing so. Mr. Prescott on the other hand did not accept that in general terms a patent is bad if its claims are arguably unclear. However, this is not something I need to resolve here because in my view claim 1 of the patent, as I have construed it, is adequately clear and so on this basis at least no question of insufficiency arises. Therefore, any argument Mr. Platts-Mills might have that the patent is insufficient for want of clarity, falls at the first hurdle.

The Requested Amendments

78 As mentioned above Trek requested unconditional amendment of the patent under section 75 of the Act on 24 June 2004. M-Systems oppose this request. The amendment involves the introduction of the following disclaimer:

"Since the filing of this application, we have become aware of EP-A-1102172, a European Patent application that designates the UK, and which has a filing date earlier than that of the present application but which was not published until after the filing date of the present application. That application describes a dual interface memory card and an adapter module. The dual interface memory card has two interfaces, one for interfacing with a USB port of a computer via the adapter module, and a second, host, interface for connecting to an electronic product, such as a digital camera. In use, the memory card may connect directly to the electronic product, or may be received within a receiving aperture in the adapter for connection to a computer USB socket. We disclaim the combination of a dual interface memory card and adapter module for the same."

The request also seeks amendment of claim 1 as granted (for convenience I have indicated the changes using bold and strikethrough):

"1. A portable data storage device **operative to function as an alternative to a magnetic disk or CD-ROM**, which ~~device is~~ **can** be directly **introducible into and removable from** ~~plugged into a~~ USB socket of a computer **to permit the transfer of data from one computer to another** and which ~~is operative to function as an alternative to a magnetic disk or CD-ROM~~, and which is capable of

storing software for installation to the computer or of receiving and storing user's data present in the computer, ~~and~~ which **device** comprises a coupling device which is a USB plug for coupling directly to a USB socket on a computer, an interface device coupled to the USB plug, a memory control device and a non-volatile solid state memory device; the memory control device being coupled between the interface device and the memory device to control the flow of data from the memory device to the USB plug, **but subject to the foregoing disclaimer.**"

79 During the course of the hearing Mr. Prescott indicated that he was ready to further amend this claim by substituting "or" for "and" so that it would read "which deviceis capable of storing software for installation to the computer **and** of receiving and storing user's data present in the computer".

80 Later still in the hearing, Trek made a request to add two new claims 7 and 8:

"7. A method of transferring data from one computer to another computer, both computers being equipped with USB sockets, in which

(a) a portable storage device that functions as an alternative to a magnetic disk or CD-ROM and which is capable of storing software for installation to a computer or of receiving and storing user's data present in the computer, and which device comprises

a coupling device which is a USB plug for coupling directly to a USB socket on a computer, an interface device coupled to the USB plug, a memory control device and a non-volatile solid state flash memory device; the memory control device being coupled between the interface device and the memory device to control the flow of data from the memory device to the USB plug;

is directly introduced into the USB socket of the one computer;

(b) the device receives and stores user's data present in the one computer;

(c) the device is removed from the USB socket of the one computer;

(d) the device is introduced into the USB socket of the other computer; and

(e) the user's data is transferred to the other computer.

8. A method according to claim 7 in which the portable storage device is in accordance with any of claims 1, 2, 3, 4, 5 or 6."

The law on amendment in revocation proceedings

81 The power to amend a patent in revocation proceedings comes from section 75(1) of the Act:

“75.-(1) In any proceedings before the court or the comptroller in which the validity of a patent may be put in issue the court or, as the case may be, the comptroller may, subject to section 76 below, allow the proprietor of the patent to amend the specification of the patent in such manner, and subject to such terms as to advertising the proposed amendment and as to costs, expenses or otherwise, as the court or the comptroller thinks fit.”

82 Section 76(3) of the Act limits the amendment allowed:

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

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

Discretion to allow a request to amend during the course of proceedings

83 I was addressed at some length by Mr. Prescott and Mr. Platts-Mills on whether I should even consider the new claims 7 and 8 because Mr. Platts-Mills took the view that the request, coming as it did just before I was due to hear closing statements, was just too late. Mr. Platts-Mills relied on two authorities, namely *Nikken Kosakusho Works, Nikken Kosakusho UK limited v. Pioneer Trading Company, Nikken Heartech (Europe) Maschinenhandels GmbH* [2004] EWHC 2426 and *Secretary of State for Education and Skills v. Frontline Technology Limited* [2005] EWHC 37. The circumstances underlying these authorities were not on all fours with the situation before me since both authorities concern attempts to amend the claims of a patent after they were held to be invalid. In these authorities discretion to allow amendments was influenced by an old judgment, *Henderson v. Henderson* (1843) 3 Hare 100, which established that parties should not be allowed to argue a second time around something they could, and should, have argued the first time around. Mr. Prescott opined that neither of these cases constitutes a legal bar to admitting an amendment during the course of a hearing. Nevertheless, he acknowledged that I still had discretion against the question of what does the broad justice of the case require. Mr. Platts-Mills had a different view and argued that it was an abuse of process to bring forward a validating amendment just before closing speeches. In his submission a patentee who thinks of making an amendment at this stage should not be in a better position than one who calls the Tribunal’s bluff and waits until the decision is forthcoming. His view was that Trek had decided to stand and fight its ground on the amended claim 1 and that should be it.

84 I have carefully considered the authorities relied on by Mr. Platts-Mills and I must agree with Mr. Prescott that they do not provide a legal bar to consideration of an amendment requested during the course of proceedings, specifically after the presentation of evidence but before closing submissions. In line with Mr. Prescott’s submission I believe that the correct course would be

for me to consider on the basis of convenience whether discretion should be exercised to allow a late request to amend. I also observe that in proceedings before the Comptroller it is not uncommon for hearing officers to allow a patentee the opportunity to amend after an adverse finding, despite the principle established in *Henderson v. Henderson*.

Discretion to allow a requested amendment

- 85 At the hearing my attention was drawn to a number of authorities which go to the discretionary nature of the power in section 75(1) to allow amendment. The starting point was the judgment of Aldous J. in *Smith Kline & French Laboratories Limited v. Evans Medical Limited* [1989] F.S.R. 561 which provides at page 569 a summary of the general approach to the exercise of discretion to amend:

“The discretion as to whether or not to allow the amendment is a wide one and the cases illustrate some principles which are applicable to the present case. First, the onus to establish that amendment should be allowed is upon the patentee and full disclosure must be made of all relevant matters. If there is a failure to disclose all relevant matters, amendment will be refused. Secondly, amendment will be allowed provided the amendments are permitted under the Act and no circumstances arise which would lead the court to refuse the amendment. Thirdly, it is in the public interest that amendment is sought promptly. Thus, in cases where a patentee delays for an unreasonable period before seeking amendment, it will not be allowed unless the patentee shows reasonable grounds for his delay. Such includes cases where a patentee believed that amendment was not necessary and had reasonable grounds for that belief. Fourthly, a patentee who seeks to obtain an unfair advantage from a patent, which he knows or should have known should be amended, will not be allowed to amend. Such a case is where a patentee threatens an infringer with his unamended patent after he knows or should have known of the need to amend. Fifthly, the court is concerned with the conduct of the patentee and not with the merit of the invention”.

Although *Smith Kline & French* was decided under the Patents Act 1949, the existence of the discretion and the continuing applicability of these principles were confirmed by the Court of Appeal in *Kimberly-Clark Worldwide Inc. v. Proctor & Gamble Ltd* [2000] RPC 422 at page 435.

Full disclosure of all relevant matters

- 86 The first point requires a full disclosure by the patentee of all relevant matters and this requirement was emphasised by the Court of Appeal in *Oxford Gene Technology Ltd v. Affymetrix Inc. (No. 2)* [2001] RPC 18. Mr. Prescott characterised this as the governing case. In his view it is no longer the practice that a patentee requesting an amendment must trawl through his documents to see whether they are relevant to the exercise of discretion or must disclose privileged documents. Now it is only necessary that the patentee puts forward the correct reasons for seeking an amendment and to explain anything that requires an explanation. Mr. Platts-Mills on the other

hand took the view that *Oxford Gene Technology* did not change the nature of the disclosure required from a patentee, it simply made it plain that a patentee could not be required to waive privilege nor could he be criticized for not doing so. On this matter I was invited by Mr. Prescott and Mr. Platts-Mills to consider paragraphs 18 – 21 of Aldous L.J.'s judgment and paragraph 53 of Brooke L.J.'s judgment. I have in fact read *Oxford Gene Technology* in its entirety but agree that the passages identified are central to the requirement for a full disclosure. It is helpful to set out here paragraphs 18 – 21 of Aldous L. J.'s judgment (my emphasis) :

- “18 All types of abuse can result in a refusal to exercise the discretionary power given by section 75 to allow amendment. Each case depends on the facts, but the most common are those referred to in *Smithkline and French Laboratories Ltd v. Evans Medical Ltd* [1989] F.S.R. 561 at page 569 as approved by this court in *Hsiung's Patent* [1992] R.P.C. 497 at 522.
- 19 It is also not surprising that when a patentee seeks amendment, the court requires him to place before it the relevant facts and matters upon which it is to exercise its discretion. That can be illustrated by taking a typical case where a patentee seeks to amend under section 75 to strengthen his patent against an attack based upon a particular piece of prior art. Thus his statement of reasons will give that as the reason for amendment. **It follows that the court is concerned with whether to exercise its discretion to allow amendment for that reason and the patentee must turn his mind to that issue so as to be able to inform the court of the relevant facts.** Any disclosure should be limited to that issue and only ordered if necessary.
- 20 it seems that practitioners believe there to be an obligation upon a patentee to trawl through his documents to see whether they are relevant to the exercise of the discretion, whatever the reason put forward for the amendment. That results in considerable expense and is not required under modern principles. **The obligation of good faith requires the patentee to put forward correct reasons for the amendment. If there be facts relevant to the exercise of discretion for those reasons then those facts need to be put before the court.**
- 21 There is no obligation upon a patentee in amendment proceedings to waive privilege in respect of any document. As was pointed out in *W. C. Wentworth v. J. C. Lloyd* (1864) 10 H.L.C. 589, the maintenance of privilege does not enable the court to draw an adverse inference against the person who maintains his privilege.”

87 From this I conclude that *Oxford Gene Technology* did not change the nature of the disclosure required from a patentee, although it may have changed the perception amongst practitioners of what was required. It also indicates to me that the obligation on the patentee to state the correct reason or reasons for an amendment and to disclose all facts relevant to the exercise of discretion for

that reason or those reasons, overarches the principles set out in *Smith Kline & French* because the court or the comptroller must be in possession of all the relevant facts before coming to an informed decision. I find further support for this view from *Hsiung's Patent* [1992] RPC 497. In this case the patentee failed to disclose all relevant non-privileged matters in relation to some unanswered questions, and Aldous J. took the view that he was unable to exercise his discretion to allow the requested amendments because he had been left completely in the dark as to whether there had been culpable delay over a number of years.

Delay and obtaining an unfair advantage

- 88 Mr. Platts-Mills also directed me to *Instance v. CCL Label Inc.* [2002] F.S.R. 27 in which Pumfrey J. used as his starting point the principles identified by Aldous J. in *Smith Kline & French*. Pumfrey J. noted that underlying these principles there is a desire to ensure that patentees do not obtain an advantage, which is unfair, from their failure to amend, and perhaps, in some cases at least, to punish patentees for the unreasonableness of their conduct even when no advantage has in fact been gained. Pumfrey J. also acknowledged the care taken by Aldous J. to distinguish two kinds of delay based on the judgment of Graham J. in *Matbro Limited v. Michigan (Great Britain) Limited and Another* [1973] RPC 823. There is culpable delay (where the patentee was aware of the need to amend but failed to do so) which is different in significance from the situation where a patentee who knows of an objection but never thought or should have thought that amendment was the right course. According to Aldous J. in both cases failure to amend is contrary to the public interest, but in the second situation the patentee may be excused because he has acted reasonably.
- 89 The relevant facts in *Instance* were that the patentee's counsel advised in August 1999 that the patent was probably anticipated but during the period following this advice the patent was deployed in litigation. During the course of these proceedings an application was made to amend the patent in December 2000. Although the period of delay was relatively short, Pumfrey J. took the view that after counsel's advice was received a period of two months would have been more than adequate to formulate an amendment. Thus, the application to amend could have been made in October 1999, not December 2000. Pumfrey J. ultimately concluded that the patentee's conduct had not been reasonable in the absence of satisfactory explanations for the delay in seeking the amendment and for why the defendants in the proceedings concerning the patent had not been informed that the patent was invalid and that amendment would be sought. On this basis he felt it justified to refuse the amendment.
- 90 Mr. Prescott argued that Pumfrey J.'s decision to refuse the amendment in essence depended on the patentee's failure to inform the defendants that a view had been taken that the patent in its unamended form could not be defended and that it would have to be amended or partially revoked. By arguing this way I think Mr. Prescott was trying to persuade me that a culpable delay of the first category, as identified by Aldous J., did not in its own right provide sufficient grounds for not exercising discretion to allow an amendment. To illustrate this point Mr. Prescott gave an example of a patentee who knew

for three years that he ought to amend his patent but did not do so. In Mr. Prescott's opinion this delay would not be culpable if the patentee had not sought to enforce his patent. To my mind this suggestion flies in face of what Graham J. said in *Matbro Limited* and fails to address the entitlement which third parties have to plan their activities on the assumption that a patentee, knowing his patent requires amendment, has decided not to amend. Moreover, in the light of Pumfrey J.'s view that two months would be more than adequate to formulate an amendment, I consider that there would have to be very persuasive reasons to excuse a delay of three years, as in Mr. Prescott's example.

Nature of the amendment

- 91 Although it is not something that was raised specifically at the hearing before me, Pumfrey J. in *Instance* also addresses the clear distinction drawn in earlier authorities between validating amendments on the one hand and amendments to delete invalid or doubtful claims, leaving others untouched, on the other hand. As noted by Pumfrey J. unless there is a very good reason indeed, an amendment consisting only of the deletion of invalid claims will be allowed but a validating amendment is viewed as an attempt to write a valid claim for the first time and may be refused in the exercise of discretion. This is relevant because the amendments, requested by Trek, are of the latter category.

The amendments are permitted under the Act

- 92 The second point to emerge from *Smith Kline & French* is that amendment will be allowed provided it is permitted under the Act and no circumstances arise which would lead the court to refuse the amendment. There is no suggestion in the present proceedings that the proposed amendment to claim 1 extends the protection conferred by the patent and so would not be permitted under section 76(3)(b). This then is something I do not need to consider. However, M-Systems do allege that this amendment results in the specification disclosing additional matter contrary to section 76(3)(a). I have already considered various authorities of relevance to the question of added subject matter and this is something I do not need to repeat here.
- 93 However, there is one further matter of relevance to the disclosure of additional matter that I need to consider in view of the disclaimer sought by Trek in relation to a conflicting application falling within the section 2(3) field. Mr. Platts-Mills and Mr. Prescott held different views about the allowability of the disclaimer but agreed that the relevant authority is the decision of the Enlarged Board of Appeal of the EPO in joined cases G1/03 (*Disclaimer/PPG*) and G2/03 (*Disclaimer/Genetic Systems*) [2004] EPOR 33.
- 94 The first question considered by the Enlarged Board of Appeal in these cases was whether an undisclosed disclaimer is allowable when its purpose is to meet a lack of novelty objection under Art. 54(3) EPC. On this question the Enlarged Board concluded at paragraphs 33 and 34:

“33 For the interpretation of Art. 123(2) EPC, it may be concluded that the purpose of a disclaimer excluding a conflicting application is merely to take account of the fact that different applicants are entitled to

patents in respect of different aspects of inventive subject-matter and not to change the given technical teaching. The disclaimer splits the invention as a whole in two parts: in respect of the identical part, it preserves the rights of the first applicant; for the rest, disclosed for the first time in the later application, it attributes the right to the second applicant. This approach restricts the effects of art. 54(3) EPC to resolving the problem of double patenting.

34 Such a disclaimer, only excluding subject-matter for legal reasons, is required to give effect to Art. 54(3) EPC and has no bearing on the technical information in the application. It is, therefore, not in contradiction to Art. 123(2) EPC.”

95 The Enlarged Board then turned to consider the allowability of disclaimers in cases of accidental anticipation under Art. 54(2) EPC and when claims embrace subject matter which is excluded from patentability. Neither of these circumstances are relevant to the matter before me and so I do not need to consider them here. However, the Enlarged Board stressed at paragraph 53 that when defining the situation in which a disclaimer may be allowed in order to overcome an objection relating to a conflicting application under Art. 54(3), accidental anticipation under Art. 54(2) and an exception to patentability, it had taken care to ensure that the reason justifying a disclaimer is not related to the teaching of the invention. The Board went on to observe in paragraph 54 that it cannot be excluded with absolute certainty that a limitation effected by a disclaimer later on turns out to be of technical relevance. According to the Enlarged Board this might lead to a conclusion that the disclaimer is not a mere disclaimer but contributes to the technical teaching and adds subject-matter within the meaning of Art. 123(2) EPC. In this situation the disclaimer would have to be considered after the fact as inadmissible.

96 The Enlarged Board provides a helpful illustration in paragraph 56 (my emphasis):

“56 The principle that an undisclosed limitation has to be a mere disclaimer in the above sense to be allowable, also provides the solution in the case where there are two anticipations, one piece of prior art under Art. 54(3) as well as another one under Art. 54(2). **The privileged situation in the relation between conflicting applications does not exist in relation to pre-published state of the art.** The claimed invention as originally disclosed must meet the requirements of Art. 54(2) EPC and a disclaimer which would be allowable on the basis of the conflicting application alone cannot render the invention novel or inventive over the prior art under Art. 54(2) EPC unless the latter is an accidental anticipation and only novelty is at stake.”

97 The position was then summarized by the Enlarged Board at paragraph 59 (again my emphasis):

“59 It results from the forgoing that a disclaimer may serve exclusively the purpose for which it is intended and nothing more. In the case of a disclaimer concerning conflicting applications, its purpose is to establish novelty with respect to a prior application in the sense of Art. 54(3) EPC.

In the case of a disclaimer concerning state of the art under Art. 54(2) EPC, its purpose is to establish novelty *vis-à-vis* an accidental anticipation as defined in this decision. Finally, a disclaimer excluding subject-matter not eligible for patent protection may only serve the purpose of removing such specific legal obstacle. **If a disclaimer has effects which go beyond its purpose as stated above, it is or becomes inadmissible.**”

98 When Mr. Prescott addressed me on the Enlarged Board of Appeal’s decision in the joined cases G1/03 and G2/03 he did so in terms of a man applying for a patent being confronted with some prior art he did not know about and could not have been expected to know about, for example a conflicting application falling within the section 2(3) field. His view of the Enlarged Board’s decision was that in such a case you can have a disclaimer to restore novelty and it does not count as adding subject matter. This was because the purpose of section 2(3), which is to avoid double patenting, is different from the purpose of section 2(2). In support of this latter point, Mr. Prescott referred me to *Woolard’s Application* [2002] RPC 39 in which Laddie J. held that the purpose of Art. 54(3) EPC, which corresponds to section 2(3), was to prevent double patenting. Mr. Prescott suggested that the way to proceed in the present case would be to decide whether the amended claim, ignoring the disclaimer, covers obvious matter. If it does not the amended claim and the disclaimer should be allowed. Mr. Prescott recognised that it could never be discounted that a piece of relevant prior art, which would render a claim obvious if it were not for a disclaimer, might turn up sometime in the future. However, in his view this possibility does not provide grounds for not allowing the disclaimer in the first place, otherwise disclaimers would never be allowed.

99 Mr. Platts-Mills did not accept the approach advocated by Mr. Prescott. In his closing skeleton he referred to one of the answers given by the Enlarged Board of Appeal, namely:

“A disclaimer which is or becomes relevant for the assessment of inventive step or sufficiency of disclosure adds subject-matter contrary to Art. 123(2).”

In his view what has to be considered is whether a particular suggested disclaimer does in fact add subject matter relevant for the assessment of inventive step and this has to be done by considering whether the question of obviousness is altered by the addition of the disclaimer.

100 Referring to the illustration provided by the Enlarged Board in paragraph 56 of its decision (see above), Mr. Platts-Mills submits in his closing skeleton that when a disclaimer bolsters an obviousness case by, for example, removing from within the scope of a patent the natural endpoint for a workshop development from an item of prior art, or one of the features that distinguish the claimed invention from the published art, that disclaimer is impermissible. Otherwise a disclaimer could be used as a route round Art. 54(2) prior art if a suitable Art. 54(3) citation could be found. The “privileged” position in relation to an Art. 54(3) unpublished application would be being used to avoid the effects of Art. 123(2), ie that the amendment adds matter, in relation to an Art. 54(2) published application in circumstances where the privilege would not be

extended to the disclaimer in relation to the latter prior art. Reinforcing this point at the hearing, he referred to paragraph 53 of the Enlarged Board's decision but in doing so he misquoted this paragraph in that he said (my emphasis):

"In defining the situations in which a disclaimer may be allowed in order to overcome an objection, as indicated in points 2.1, 2.2 and 2.4, **care has to be taken** to make sure that the reason justifying a disclaimer is not related to the teaching of the invention."

101 What the Enlarged Board actually said was (my emphasis again):

"..... **care has been taken** to make sure that the reason justifying a disclaimer is not related to the teaching of the invention."

In other words the reason why a disclaimer is allowable when overcoming an objection relating to a conflicting application under Art. 54(3), accidental anticipation under Art. 54(2) or an exception to patentability, is because such a disclaimer is not related to the teaching of the invention.

102 After carefully considering the Enlarged Board's decision, it seems to me that a disclaimer is allowable to distinguish a claimed invention from a conflicting application in the section 2(3) field. In this simple situation there can be no added matter because the effect of the disclaimer is solely to avoid double patenting. However, there would be added matter and hence the disclaimer would not be allowable if the disclaimer also excludes section 2(2) prior art, except an accidental anticipation, which would otherwise destroy the novelty or inventiveness of the claimed invention. Thus, in my view, there is no question, as suggested by Mr. Platts-Mills, that a disclaimer could be used as a route around section 2(2) prior art if a suitable section 2(3) citation could be found. Furthermore, I agree with Mr. Prescott that the mere possibility that a disclaimer might ultimately give rise to added matter if relevant prior art in the section 2(2) field is unearthed at some later date, does not provide grounds for not allowing a disclaimer in the first place.

Assessment of the amendment requested on 24 June 2004

Are there grounds for exercising discretion?

103 Following the general approach established by Aldous J. in *Smith Kline & French* I need first to consider whether Trek's conduct in relation to the amendment, requested on 24 June 2004, has been such that I can exercise my discretion to allow the amendment. I will consider later the further amendment which was requested during the course of the hearing.

104 In its statement of reasons for requesting the amendment, Trek justifies the amendment on the grounds that it enhances the clarity of the claim and the distinguishing features over the prior art, such as a device described as the "Aladdin MacHASP device". The statement makes a particular point that Trek had become aware of EP-A-1102172 ("Yao") and seeks to disclaim the disclosure in this European patent application. The statement also includes a long list of prior art which is stated to have been drawn to Trek's attention in the course of prosecuting the application and other corresponding applications

and in the course of litigation in Singapore. The statement explains that the list is not a full one because Trek is forbidden to disclose a small number of items because of discovery rules applied by the courts of Singapore. This list is the same as that included in Mr. Howe's first witness statement with the exception that Trek's own ThumbDrive is not mentioned.

- 105 Mr. Prescott characterized this list of prior art as a *de facto* "Simkins list". I was grateful to Mr. Prescott and Mr. Platts-Mills for their explanations of this expression because it was one I had not come across before. As it was explained to me, the origins of this expression come from *Olin Mathieson Chemical Corporation and Others v. Biorex Laboratories Limited and Another* [1970] RPC 157 in which Dr. Simkins, who was the head of the Research Information Department at Smith Kline & French, gave evidence. Dr. Simkins' evidence addressed what people were doing round about or before the priority date in order to solve the problem of the invention and it showed that they were following many leads but all missed the point. Against this background it was argued successfully that the invention was probably not obvious, otherwise it would have been done before.
- 106 I should explain at this point in keeping with this concept of a "Simkins list", Mr. Howe uses his first witness statement to summarise the main teaching of each item of prior art in Trek's list in order to demonstrate how, despite the plethora of prior art that had been cited, none teaches the concept sought to be claimed by Trek and none teaches anything of equivalent value and success. Mr. Platts-Mills seemed to think that this evidence by Mr. Howe might have a bearing on the request to amend because it dealt with the items in the list provided with the statement of reasons for the amendment. However, Mr. Howe dismissed any such notion in the clearest of terms during his cross-examination.
- 107 Mr. Platts-Mills argued that there is no basis for me to exercise discretion to allow the amendment because Trek has failed to provide any information relevant to the exercise of discretion. In his view Trek has not set out the proper reasons for seeking the amendment and it has not identified all of the prior art which it says gives rise to the need to amend. Moreover, according to Mr. Platts-Mills, Trek's conduct, in relation to the disclosure and evidence provided, has been positively misleading. On this latter point he submitted that Trek sought to muddy the water with its long list of other prior art.
- 108 Mr. Prescott was unwilling to assist me by putting in any evidence to support the request to amend because in his view this evidence would inevitably turn on when Trek first realised that the claims needed amending and that would inevitably turn on what advice Trek received from its patent attorney and counsel. This was a point of principle for Mr. Prescott. He regarded this element of the law anachronistic and not compliant with the Human Rights Act 1998. Mr. Prescott did not develop this argument but I am conscious of and feel bound by the considerable body of law that requires a patentee to put forward the correct reasons and to explain anything that requires explanation when seeking discretion. I accept that following *Oxford Gene Technology* there is no need to disclose privileged documents and that it would be wrong for me to draw any adverse inference from the maintenance of privilege. However, it seems to me that Trek could have put in evidence to assist me

without disclosing privileged information but it has decided not to.

- 109 Thus, all I have to go on is the information contained in Trek's statement of reasons for seeking the amendment and my decision on whether to exercise discretion in Trek's favour will depend upon what I can glean from this statement, although as Mr. Platts-Mills pointed out this statement has no evidential value.
- 110 Considering first the reason or reasons for the amendment, what I have from Trek are statements that the amendment is required (a) to enhance the clarity of the distinctions between the claimed portable data storage device and the prior art, such as a device described as the "Aladdin MacHASP device" and (b) to overcome section 2(3) prior art in the form of Yao. It seems that the first reason goes wider than the "Aladdin MacHASP device" in that this device is given as a mere example of the prior art which the amendment seeks to distinguish. There is the long list of other prior art, provided by Trek, but it was not suggested to me that the listed prior art, with the possible exception of an item relating to advertising material for "Aladdin MacHUSP USB" (*sic*) software protection keys, constitutes the prior art which the requested amendment seeks to address. Therefore, the reasons given are incomplete and I am also at a loss in the absence of any explanation to understand Trek's purpose for providing the extensive list of other prior art in its statement of reasons.
- 111 What then of the facts relevant to the reasons? I have been told nothing concrete. For example, I do not know when Trek first became aware of the need to distinguish its claimed device from the Aladdin MacHASP device and from the disclosure in Yao, although I note the statement of reason states that Trek had "recently" become aware of this European patent, published in May 2001. Moreover, the fact that the amendment was requested approximately ten months after the patent was granted does not in my view help Trek or excuse it from the need to disclose those facts which are relevant to the exercise of discretion. Yao was published on 23 May 2001 and so it is possible that Trek could have been aware of it even before the patent was granted. Indeed I note that the disclaimer itself states generally that Trek became aware of Yao sometime after filing the application.
- 112 Mr. Platts-Mills anticipated that I would be at a complete loss on how I would be able to exercise my discretion. He was correct. I cannot even begin to assess, for example, whether the amendment was sought promptly in the public interest or whether there was a culpable delay. It follows that I am unable to exercise discretion to allow the amendment because Trek has not discharged the onus upon it to establish that the amendments should be allowed. I should add for avoidance of doubt that whilst I have some sympathy for the point made by Mr. Platts-Mills that the list of other prior art provided by Trek muddies the water, Trek's conduct on this matter is not such that I would have refused discretion on that ground alone.

Is the amendment permitted under the Act?

113 Although I have decided not to exercise discretion to allow amendment of claim 1 and the addition of a disclaimer for the reason that Trek has failed to provide a full disclosure of all relevant matters, I will nevertheless go on to consider whether the amendment requested to claim 1 is such that it would be permitted under the Act. Mr. Platts-Mills raised objections to four elements of the claim as Trek proposes to amend it. I will consider each of these objections in turn.

114 The first of these elements is to replace the phrase:

“device which can be **directly plugged into** a USB socket”

with the phrase

“which device is **directly introducible into** and removable from a USB socket”.

I have already considered what can and cannot be implied about the form of the device from the reference in the application to the device being “removed” from the USB socket on a computer. I have also dismissed Mr. Prescott’s suggestion, which was supported by Professor Kim, that if the device is removed, it must have been introduced into the USB socket the first place. I should now give my reasons for doing so.

115 The reason Trek gives for making this amendment is that it enhances the clarity of the claim and the distinguishing features over the prior art. Thus, it seems that Trek considers that there is some difference in meaning between the expression “directly introducible into” and the original expression “directly plugged into”. In my view there is a difference in meaning between these two expressions but it is perhaps a subtle one. It seems to me that the expression “directly introducible into” carries with it the suggestion of an integrated device, such as a key, which does not arise from the expression “directly plugged into”. Whether or not I am right about this, I cannot derive directly and unambiguously from the patent disclosure of portable data storage device being coupled to a computer other than by being “plugged into” a USB socket of the computer. I have also already noted that the expressions “removed” and “plug out” are used in the patent to describe the same operation and this strengthens my view that the apt expression to describe the reverse operation is “plugged into”, as used consistently in the patent. Thus, in so far as there is a difference in meaning between the expressions “directly introducible into” and “directly plugged into”, I find that this amendment results in the disclosure of additional matter and so is not permitted under section 76(3)(a) of the Act. However, if I am wrong on this and there is no difference in meaning, I would still not allow the amendment because I can see no point in it. If this were the case, the bar would then be on the grounds of discretion and not because the new expression would not be permitted by the Act.

116 The second element of the amendment to claim 1 involves no more than moving the phrase “operative to function as an alternative to a magnetic disk or CD-ROM” from one position in the claim to another. Trek has not explained

why it wants to make this particular adjustment. Mr. Platts-Mills objected because it must alter the meaning of the claim in some way. However, he did not offer a view on what this change of meaning might be.

117 I can see no basis for concluding that moving this phrase in claim 1 changes the meaning of the claim in any way whatsoever. Thus, there are no grounds for concluding that this change is not permitted under the Act. However, in my opinion the possibility to amend post grant is not provided simply to give patentees the opportunity to tidy up the drafting of their patents. Thus, if I had not already decided to withhold my discretion to allow the amendment, I would still not be inclined to exercise my discretion to allow this mere reformulation of the claim.

118 The third element of the amendment to claim 1 requested by Trek involves introducing into the claim the phrase “to permit the transfer of data from one computer to another”. Once again the reason given by Trek for requesting this amendment is that it clarifies the claim and the distinction between the claimed portable data storage device and prior art, such as the Aladdin MacHASP device.

119 Mr. Platts-Mills took the position that there is no disclosure in the patent that the device is such that it permits the transfer of data from one computer to another. In his view it is clear from the patent that the device could equally well be used as a secure means of holding data on respect of a single computer. Moreover, he noted that if, as stated, the device operates as an alternative to a CD-ROM it could not transfer data from one computer to another because one cannot write to a CD-ROM.

120 I have already concluded when construing the application that the device could be used on different computers to permit the transfer of data from one computer to another. The points made by Mr. Platts-Mills here do not cause me to change my mind. It follows that I can find no grounds for concluding that this change would not be permitted under the Act. Moreover, I do not consider it is necessary to further amend claim 1 in the way suggested by Mr. Prescott during the course of the hearing in view of my conclusion above that the skilled addressee would understand a reference to CD-ROM to embrace a read/write device.

Is the disclaimer allowable?

121 I can now turn to the disclaimer. There is no dispute that the disclaimer relates to a disclosure (Yao) which falls within the state of the art defined in section 2(3) of the Act. Thus, in light of my understanding of the decision of the Enlarged Board of Appeal in G1/03 and G2/03, I could accept the proposed disclaimer provided it only has the effect of preventing double patenting in respect of Yao, in other words provided it does not contribute to the technical teaching of the patent. In order to come to a decision on this, I must determine if the disclaimer excludes from consideration section 2(2) prior art which would otherwise impugn the novelty or inventiveness of claim 1 as Trek wants to amend it. To do this I must consider the prior art relied on by M-Systems.

122 I will consider this prior art in some detail later but for the moment it is sufficient

to note that apart from Yao none of it discloses a dual interface card in combination with an adapter module. Therefore, the disclaimer does not exclude anything relied on by M-Systems from consideration in relation to the novelty and inventiveness of claim 1 as Trek proposes to amend it. It follows in my view that the disclaimer merely serves to avoid double patenting in respect of Yao and does not add subject matter.

Conclusions concerning amendment requested on 24 June 2006

123 I can now summarise my findings on the allowability of the amendment requested on 24 June 2006. I have found that Trek has not discharged the onus on it to establish that the amendment should be allowed and so I have decided not to exercise my discretion to allow the amendment. However, even if I am wrong on this point, I would still not allow the substitution in claim 1 of the expression “directly plugged into” by the expression “directly introducible into” because this would add matter. I would also not exercise discretion to allow the phrase “operative to function as an alternative to a magnetic disk or CD-ROM” simply to be moved from one place to another in the claim. Finally, I have rejected Mr. Platts-Mills’ submissions that the disclaimer and the inclusion of the phrase “to permit the transfer of data from one computer to another” in claim 1 add matter contrary to section 76(3) of the Act.

The request to introduce new claims 7 and 8

124 Trek’s further request to add new claims 7 and 8 was made in a letter dated 15 June 2005 from Trek’s patent attorneys. Prior to this M-Systems had written to Trek on 17 March 2005 referring to EP1001329A2 (“Margalit”) and indicating that it proposed to draw this published European patent application to my attention and to seek permission to rely on it in the present proceedings. Subsequently, M-Systems’ patent attorneys informed me that they did not intend to rely on this application as prior art. When requesting this further amendment Trek’s patent attorneys stated that they agreed with an opinion given by Professor Kim in a second witness statement that “Margalit” does not anticipate the claims of the patent as it is currently proposed to amend it. However, they went on to explain that a closer look at Margalit had led them to identify a further point of distinction which they wished to bring out by way of a new independent claim as “an insurance policy”. The point was also made that if these new claims were not introduced now, Trek would be precluded from seeking to do so ever again because of section 76(3)(b) of the Act. Thus, procedural fairness would demand that Trek should have this last opportunity to amend in this way, the more so since M-Systems contend that the disclaimer to claim 1 is not allowable.

125 Although Mr. Platts-Mills maintained that I should shut out this further amendment in limine (an option I have already decided is not open to me), I do not think there was very much between him and Mr. Prescott in terms of how I should take this forward. Thus, Mr. Prescott and Mr. Platts-Mills seemed to agree that there are two aspects of discretion that I must address. The first concerns the timing and potential impact on the current proceedings of the further request and the second concerns the normal considerations applicable when dealing with a request to amend, such as whether there has been a full disclosure of all relevant matters and whether the amendment has been

sought promptly. They agreed that once I have come to a view on these matters, I would need to consider how to take things forward.

- 126 There is no doubt that the request to add new claims 7 and 8 was made very late in the proceedings and almost three months after M-Systems had drawn Margalit to Trek's attention. Moreover, Trek had known about the Taiwanese or possibly Japanese (there was confusion about which at the hearing) equivalent of Margalit for even longer since it is one of the documents (SH25) exhibited with Mr. Howe's witness statement of 23 June 2004. However, despite the inevitable disruption to the proceedings and despite the fact that Trek seeks to add the new claims merely as an insurance policy, I would be reluctant to refuse them on these grounds alone in view of the demands of procedural fairness advanced by Trek. This though is not the end of the matter and I must also consider this late request to amend in the light of the principles established in *Smith Kline & French*.
- 127 Whilst Mr. Prescott confirmed at the hearing that in Trek's opinion Margalit does not anticipate claim 1 as Trek seeks to amend it, he did acknowledge that the new claims are important to Trek because they provide insurance against the consequences of Yao surfacing in some other form as section 2(2) prior art against which the disclaimer of claim 1 would be ineffective. Nevertheless, Mr. Prescott was very firm that the further amendment was not intended to get around the Yao section 2(3) prior art because in Trek's view that is what the amendment to claim 1 achieves.
- 128 The relevance of Yao to the further amendment had not escaped Mr. Platts-Mills. He did not accept the proposition that the amendment is intended to distinguish over Margalit. In his view it is designed to distinguish over other art including, but not limited to, Yao. He suggested that there was support for this view in paragraph 6 of Professor Kim's second witness statement:
- "6. The USB plug disclosed in EP 1001329 A2 could have some EEPROM or Flash memory. This memory would have been understood by a skilled reader to be intended to store a small amount of very confidential information and "information characterizing each mobile user". Other than storing this confidential information in a USB plug, there is no disclosure of storing generic user data nor moving data from one computer to the next. In the light of the description, the skilled reader would have understood that the user's data memory size would be small, ranging from less than 1 Kbytes to a few tens of Kbytes."
- From this Mr. Platts-Mills concluded that the distinction Professor Kim was making concerned the size of the memory and not the transfer of information from one computer to another. Mr. Platts-Mills' position was that Trek should have come forward with the amendment earlier in the light of their knowledge of the prior art, including Yao and the foreign equivalent of Margalit exhibited by Mr. Howe.
- 129 Whilst I agree with Mr. Platts-Mills that the emphasis in Professor Kim's second witness statement is on the size of the memory, I do not think this helps me one way or the other since the Professor's and Trek's bottom lines are that Margalit does not anticipate claim 1 as Trek wants to amend it. Of

greater significance in my view is that Trek clearly had not only Margalit but also Yao in mind when they requested the further amendment on 15 June 2005. It appears from the letter, accompanying the request, that Trek recognised that the new claims provide a way of getting around Yao without relying on a disclaimer which M-Systems had challenged. This relationship between the request to introduce new claims 7 and 8 and Yao is central in my view to the question of discretion. I have already refused to exercise discretion to allow the amendment of claim 1 because Trek has not provided evidence addressing, for example, the question of when Trek first realised that the claims needed amending in the light of Yao. It would be odd indeed if having taken this decision in relation to amendment of claim 1, I then exercised my discretion to allow the new claims which could possibly provide an alternative way of avoiding anticipation by Yao. Thus, I am not prepared to exercise discretion to allow the further request for the reasons I have already given above in relation to Yao and the requested amendments to claim 1.

- 130 That could be the end of it but it is perhaps worth noting that Mr. Prescott also submitted that the new claim 7 adds nothing to claim 1 as Trek wishes to amend it. Whilst accepting that the method of claim 7 is not subject to the disclaimer sought in claim 1, in his view the technical content of claim 7 is the same. I do not fully accept Mr. Prescott's comparison of the technical content of these claims but in any event the similarities between claim 1, as it is sought to be amended, and the new claim 7 have implications for the allowability of claim 7 in view of my conclusions above concerning claim 1. Thus, even if I had exercised my discretion to allow the new claim, it appears that Trek would not be out of the woods with the new claims.

Do the amendments cure the defect?

- 131 I can now move on to consider whether claim 1, as Trek proposes unconditionally to amend it, distinguishes the claimed invention from the prior art. I have not heard any submissions concerning the validity of the new claim 7 and 8 and so I do not propose to consider these claims further in this decision.

The law

- 132 The grounds on which a patent may be revoked are set out in section 72 of the Act. Of particular relevance to the present proceedings are the grounds set out in sub-section (1)(a):

72.-(1) Subject to the following provisions of this Act, the court or the comptroller may on the application of any person by order revoke a patent for an invention on (but only on) any of the following grounds, that is to say-

(a) the invention is not a patentable invention;

(b)

- 133 What constitutes a patentable invention is defined in section 1 of the Act. Sub-section (1) requires that a patent be granted for an invention which (a) is new and (b) involves an inventive step. The criteria of novelty and inventive step

are defined in sections 2 and 3 respectively, the relevant provisions of which are:

“2.-(1) An invention shall be taken to be new if it does not form part of the state of the art.

(2) The state of the art in the case of an invention shall be taken to comprise all matter (whether a product, a process, information about either, or anything else) which has at any time before the priority date of that invention been made available to the public (whether in the United Kingdom or elsewhere) by written or oral description, by use or in any other way.

(3) The state of the art in the case of an invention to which an application for a patent or a patent relates shall be taken also to comprise matter contained in an application for another patent which was published on or after the priority date of that invention, if the following conditions are satisfied, that is to say –

(a) that matter was contained in the application for that other patent both as filed and as published; and

(b) the priority date of that matter is earlier than that of the invention.

3. An invention shall be taken to involve an inventive step if it is not obvious to a person skilled in the art, having regard to any matter which forms part of the state of the art by virtue only of section 2(2) above (and disregarding section 2(3) above).”

134 Mr. Prescott pointed out that the law of anticipation, as approved by the House of Lords in *Asahi Kasei Kogyo KK's Application* [1991] RPC 485 at page 544, is given by Sachs L.J. in *General Tire & Rubber Company v. The Firestone Tyre and Rubber Company Limited and Others* [1972] RPC 457 at page 485:

"If the prior inventor's publication contains a clear description of, or clear instructions to do or make, something that would infringe the patentee's claim if carried out after the grant of the patentee's patent, the patentee's claim will have been shown to lack the necessary novelty, that is to say, it will have been anticipated.

If, on the other hand, the prior publication contains a direction which is capable of being carried out in a manner which would infringe the patentee's claim, but would be at least as likely to be carried out in a way which would not do so, the patentee's claim will not have been anticipated, although it may fail on the ground of obviousness. To anticipate the patentee's claim the prior publication must contain clear and unmistakable directions to do what the patentee claims to have invented:"

Mr. Prescott stressed that for anticipation clear and unmistakable directions as to the result were required. Mr. Prescott illustrated this using the example of a

skilled person who is asked to make a one-tenth normal solution of sodium tartrate. He would know how to do it without the need for instructions about weighing the tartrate and this would anticipate a one-tenth normal solution of sodium tartrate. However, even though the skilled person would know how to achieve this result, there would be no anticipation if the required result had not been stated because he would not have gone down this particular road without the direction in the first place.

- 135 Mr. Platts-Mills makes the point in his closing skeleton that Jacob L.J. in *Smithkline Beecham plc, Glaxosmithkline UK Limited v. Apotex Europe Limited, Neolab Limited, Waymade Healthcare plc* [2004] EWCA Civ 1568 at paragraphs 31 to 33 outlines how novelty can be made out in two ways:
- (a) by an enabling disclosure to make what is later claimed (*Inhale Therapeutic Systems Inc v. Quadrant Healthcare Plc* [2002] RPC 21 at paragraph 43); or
 - (b) by the disclosure of clear and unmistakable directions which inevitably result in the patented product (*General Tire and Rubber Company v. Firestone Tyre and Rubber Company Ltd* [1972] RPC 457 at page 485).

Mr. Platts-Mills continues by stating that in Jacob L.J.'s view an "enabling disclosure" is a lesser test than "inevitable result" in that it allows the skilled addressee to reach the result with the aid of his ordinary skills and without undue effort.

- 136 Mr. Platts-Mills then refers to a slightly different understanding of the law offered by Aldous L.J. in *SmithKline Beecham Plc's Patent (No.2)* [2003] RPC 43. In this case Aldous L.J. held that whilst cases involving anticipation were often presented as involving the enabling disclosure or the inevitable result routes, it had to be remembered that the statutory requirement was that the invention had to be "made available to the public". Any route which made the invention available to the public anticipated the claim and any route that did not could not meet the statutory requirement. The test was really a single one - whether the earlier disclosure in fact, not in substance, made the later invention available to the public.
- 137 Mr. Platts-Mills submitted that anticipation is not avoided merely because the disclosure fails to set out in list form the elements of the common general knowledge that would meet the requirement of the disclosure. He illustrated this point by reference to an item of prior art that does not identify the type of non-volatile memory to be used and hence the skilled addressee has to supply one. If relying solely upon the common general knowledge he comes up with a range of possibilities, one of which is flash memory, that is enough, provided that he can see that all of them will do for implementing the disclosure of the item of prior art. He contrasted this with the situation in which flash memory amounts to an alternative to what the prior art discloses.
- 138 At the time of the hearing before me an appeal to the House of Lords in relation to *SmithKline Beecham Plc's Patent (No.2)* was pending and since then the House of Lords has delivered its judgment, *SmithKline Beecham Plc's*

(Paroxetine Methanesulphonate) Patent [2006] RPC 10. In this judgment Lord Hoffmann states that although it is sometimes said that there are two forms of anticipatory disclosure, namely a disclosure of the patented invention itself and a disclosure of an invention which, if performed, would necessarily infringe the patented invention, they are both aspects of a single principle, namely anticipation requires prior disclosure of subject matter which, when performed, must necessarily infringe the patented invention. Thus, there are two requirements for anticipation: prior disclosure and enablement. Lord Hoffmann continues by stressing the importance of keeping in mind that disclosure and enablement are distinct concepts, each of which has to be satisfied and each of which has its own rules. He develops this point at paragraph 30:

“Nevertheless, in deciding whether there has been anticipation, there is a serious risk of confusion if the two requirements are not kept distinct. For example, I have explained that for the purpose of disclosure, the prior art must disclose an invention, which, if performed, would necessarily infringe the patent. It is not enough to say that, given the prior art, the person skilled in the art would, without undue burden, be able to come up with an invention which infringed the patent. But once the very subject-matter of the invention has been disclosed by the prior art and the question is whether it was enabled, the person skilled in the art is assumed to be willing to make trial and error experiments to get it to work. If therefore, one asks whether some degree of experimentation is to be assumed, it is very important to know whether one is talking about disclosure or about enablement.”

He then illustrates this point at paragraph 32 in terms of the role of the person skilled in the art:

“....., the role of the person skilled in the art is different in relation to disclosure and enablement. In the case of disclosure, when the matter relied upon as prior art consists of a written description, the skilled person is taken to be trying to understand what the author of the description meant. His common general knowledge forms the background to an exercise in construction of the kind recently discussed by this House in *Kirin-Amgen Inc v Hoechst Marion Roussel Ltd* [2005] RPC 9. And of course the patent must be construed on similar principles. But once the meanings of the prior disclosure and the patent have been determined, the disclosure is either of an invention which, if performed, would infringe the patent, or it is not. The person skilled in the art has no further part to play. For the purpose of enablement, however, the question is no longer what the skilled person would think the disclosure meant but whether he would be able to work the invention which the court has held it to disclose.”

139 Clearly I am bound to follow this judgment of the House of Lords but in doing so I note that it is generally in line with Mr. Prescott’s submission that the skilled person has to know what the desired result is before using his common general knowledge to achieve that result. Moreover, in so far as the judgment clarifies the comments of Jacob L.J. in *Smithkline Beecham v. Apotex* concerning “enabling disclosure”, I do not accept Mr. Platts-Mills’ submission that it is permissible to supplement what is actually disclosed with what lies

within the common general knowledge of the skilled person. There can be no doubt that the prior art must disclose an invention, which, if performed, would **necessarily** infringe the patent.

- 140 The test for determining whether a claimed invention involves an inventive step is that laid down by the Court of Appeal in *Windsurfing International Inc. v. Tabur Marine (Great Britain) Ltd.* [1985] RPC 59. This test is so well established that I do not believe it is necessary to set it out in full here but it is helpful just to highlight the final one of the four steps that make up the *Windsurfing* test. This fourth step requires a decision whether the differences between the matter cited and the alleged invention, when viewed without any knowledge of the alleged invention, constituted steps which would have been obvious to the skilled person or whether they required any degree of invention. Mr. Platts-Mills and Mr. Prescott referred me to various authorities which I understood them to consider relevant to this fourth and last step of the *Windsurfing* test.
- 141 One of these authorities is *Olin Mathieson v. Biorex Laboratories*, which I have already mentioned in relation to the so-called “Simkins List” presented in these proceedings. I was also referred to other authorities in which “Simkins Lists” were indicative as to the question of obviousness. These were *Fichera and Another v. Flogates Limited and Another* [1984] RPC 257, *Hughes Tool Company v. Ingersoll-Rand Company Limited* [1977] FSR 406 and *Panduit Corp v. Band-It Co Ltd* [2003] FSR 8. In *Panduit v. Band-It* the Court of Appeal made clear that his type of evidence is by its nature secondary and whilst it has its place, the weight to be attached to it will vary from case to case. Thus, such evidence must be kept firmly in its place and must not be permitted to obscure the fact that it is no more than an aid in assessing the primary evidence which will be that of the properly qualified expert witness who will say whether or not in their opinions the relevant step would have been obvious to a skilled person having regard to the state of the
- 142 M. Prescott further submitted that it was important to recognize that an invention might lie in its simplicity and he referred me to the House of Lords’ judgment in *Vickers, Sons and Co., v. Siddell* (1890) 7 RPC 292. Mr. Prescott developed this submission by explaining that there is a class of cases in which apprehending the desideratum can be the inventive step and in support he cited *Hickton’s Patent Syndicate v. Patents and Machine Improvements Company Ltd* (1909) 26 RPC 339 and the EPO Board of Appeal decision in *Boeing Company / Electric command spoiler device* (T 225/84).
- 143 Generally I do not believe there was any difference between Mr. Platts-Mills and Mr. Prescott on the approach I should take when considering whether Trek’s invention is obvious. Thus, it seems to be accepted that invention can reside in an idea which with hindsight is simple and obvious or which once conceived is easy to put into practice. Therefore, there is nothing to be gained by considering further the relevant authorities drawn to my attention on this point.
- 144 Before I leave the authorities on inventive step, Mr. Prescott advised that it would be a very risky decision that found anticipation and obviousness based on prior art which had not been put to Trek’s expert, Professor Kim in cross-

examination. Whilst he recognized that what an expert says is not determinative and that ultimately the decision must be mine, he suggested that it is very difficult to argue that a document contains a clear and unmistakable disclosure of X, Y and Z if the document has not been put to the other side's expert witness. He also noted that when cross-examining Professor Kim, Mr. Platts-Mills did not put it to the Professor that it would be obvious to modify what had been disclosed in the prior art to come up with something falling within the claims of the patent. On these points Mr. Prescott directed me to *Panduit v. Band-It* in which the Court of Appeal recognized that almost invariably expert evidence was needed to discharge the onus upon the party alleging invalidity of a patent and that the primary evidence will be that of a properly qualified expert witnesses who will say whether or not in their opinions the relevant step would have been obvious to a skilled man having regard to the state of the art. I fully accept the importance of expert evidence when construing documents and applying the *Windsurfing* test but it does not seem essential to me that I should restrict my consideration only to prior art which had been put to Trek's expert in cross-examination. Indeed, I believe I should consider all the prior art relied on by M-Systems and as necessary take account of all the evidence given by Professor Kim in these proceedings. On matters where expert evidence is necessary and I find that the evidence available to me is unreliable or is inadequate, I may well then decide that there is no basis to conclude that M-Systems has discharged its onus to show that the invention is anticipated or would have been obvious to the skilled addressee.

- 145 Mr. Prescott also suggested that the cross-examination of Trek's witnesses followed the step-by step course decried by Lord Diplock in *Technograph Printed Circuits Ltd v. Mills & Rockley (Electronics) Ltd* [1972] RPC 346 at page 362:

"The cross-examination of the respondents' expert followed with customary skill the familiar "step by step" course. I do not find it persuasive. Once an invention has been made it is generally possible to postulate a combination of steps by which the inventor might have arrived at the invention that he claims in his specification if he started from something that was already known. But it is only because the invention has been made and has proved successful that it is possible to postulate from what starting point and by what particular combination of steps the inventor could have arrived at his invention. It may be that taken in isolation none of the steps which it is now possible to postulate, if taken in isolation, appears to call for any inventive ingenuity. It is improbable that this reconstruction *a posteriori* represents the mental process by which the inventor in fact arrived at his invention, but, even if it were, inventive ingenuity lay in perceiving that the final result which it was the object of the inventor to achieve was attainable from the particular starting point and in his selection of the particular combination of steps which would lead to that result."

I note the point made and I will deal with it later.

Construction of claim 1 as Trek seeks to amend it

146 The assessment of novelty and inventive step requires both the claims in suit and the teaching contained in the prior art to be properly construed. It is therefore necessary that I set out how I construe claim 1 as Trek seeks to amend it. I can do this quickly since I can draw on my conclusions above in relation to the construction of the application, the patent as granted and the patent as Trek proposes to amend it. Thus, on the basis of my earlier conclusions I construe claim 1 with Trek's amendments as follows:

- (i) the device is portable and compact but beyond this there are no specific limitations as to its physical size or weight;
- (ii) the device can be directly plugged into and removed from a USB socket of a computer;
- (iii) the device can function as an alternative to a magnetic disk or CD-ROM and as such permits the transfer data from one computer to another;
- (iv) the memory capacity of the device is such that it can function as an alternative to a magnetic disk or CD-ROM;
- (v) the device comprises the components, coupled to one another, as set out in the claim; and
- (vi) there is no restriction on the manner in which the components of the device are coupled to one another, for example a device having a cable coupling the USB plug and interface device is not excluded.

Assessment on anticipation

147 The prior art relied on by M-Systems for anticipation is:

- (i) EP 1102172 A1 (Yao) – Dual interface memory card and adapter module for the same;
- (ii) WO 00/42491 A1 (Abbott) – USB-compliant personal key with integral input and output devices;
- (iii) WO 99/45460 A2 (Estakhri) – Flash memory card with enhanced operating mode detection and user-friendly interfacing system;
- (iv) EP 0929043 A1 (Terasaki) – PC card having two interfaces;
- (v) WO 00/60476 A1 (Ban) – Architecture for a Universal Serial Bus-based PC flash disk;
- (vi) Literature about MacHASP USB device;
- (vii) SanDisk ImageMate USB CF Card Reader; and
- (viii) FujiFilm (RTM) Image Memory Card Reader SM-R1

In keeping with my finding above concerning the disclaimer to claim 1 none of this prior art, with the exception of Yao, is ruled out by the disclaimer. In other

words only Yao discloses the combination of a dual interface memory card and an adapter module for the card.

- 148 Mr. Prescott only addressed me on Abbott and Terasaki because these were the only documents put to Professor Kim on cross-examination. However, Professor Kim deals with all but Yao and Abbot in his first witness statement.
- 149 In my view Yao anticipates claim 1 if no account is taken of the disclaimer. However, I have found that the disclaimer could be applied legitimately to this item of section 2(3) prior art and therefore I do not need to consider Yao further in this decision.
- 150 Abbott concerns a USB compliant personal key which is capable of storing a user's personal information. Mr. Prescott's view was that this document does not anticipate because it fails to teach a mass storage device which is operative to function as an alternative to a magnetic disk or CD-ROM. Addressing this alleged distinction Mr. Platts-Mills highlighted for me passages in Abbott which are indicative of the amount of memory required. Thus, as described, the personal key provides for the storage of "a great deal of data" comprising digital certificates, many passwords, cookies and other Java-implemented software programs and a local database of file names. It may also be used to store programs and instructions, such as the user's calendar. The memory is stated to provide a master key memory resource, a personal identification number (PIN) memory resource, an associated PIN counter register and PIN reset register resource, a serial number memory resource, a global access control register memory resource, a file system space for storing personal data, an auxiliary program instruction space and a processor operation program instruction space. What is not disclosed is the actual size of the memory making comparison with the storage capacities of a magnetic disk or CD-ROM difficult. Thus, the question I am left to answer is a broad one - 'Does the Abbott key operate to function as an alternative to a magnetic disk or CD-ROM?'
- 151 To answer this question I must consider the evidence before me. Professor Kim was cross-examined extensively and step by step on what the size of the memory of the personal key would have to be to enable it to perform the functions described. He estimated that on a generous view the Abbott device would have a memory in the range of 10 to 64 Kb. I should add that contrary to Mr. Prescott's view I do not criticise Mr. Platts-Mills for his step-by-step approach on this matter. It was clear that he was attempting to get from Professor Kim a tally of the memory required for a range of different functions and it is perfectly acceptable in my view that he should do this by taking the Professor through Abbott a step at a time. During his cross-examination the Professor described the device as a specialized security device. In his opinion Abbott does not teach a general purpose data storage device which is designed for data interchange between one computer to another. Mr. Platts-Mills urged me to reject Professor Kim's evidence on this point on the grounds that the Professor was biased in his approach to the teaching of Abbott. My view at the time was that the Professor was trying to be as helpful as he could when replying to Mr. Platts-Mills' questions about Abbott and I did not detect any bias. Since the hearing I have read the transcript of the Professor's cross-examination and I have found no reason which would cause me to change my

mind. Dr. Fenster was also cross-examined on Abbott. Initially he stated that he had looked at the functions required and worked out that well over 500Kb of memory would be required. During the course of cross-examination not only did the shallowness of his expertise and his tendency to advocacy emerge but his original estimate rose to 1Mb. On this matter I much prefer Professor Kim's evidence and can only conclude that Abbott does not teach a device which operates to function as an alternative to a magnetic disk or CD-ROM because, as disclosed, the device would have insufficient memory for this function. Therefore, in my view Abbott does not anticipate claim 1 of the patent as Trek seeks to amend it.

152 The next alleged anticipation is Estakhri. This relates to an improvement of an earlier device having a receptor or "interfacing system" which can receive a flash memory card and which can be connected to a USB port on a host computer by a standard USB cable. The improvement is stated to facilitate user-friendly connectivity in a selected operating mode between the host computer and the flash memory card. A preferred embodiment is illustrated, as a schematic block diagram, in Figure 3 of the patent specification and includes an interface device which is described as having a first end 314 "configured for coupling to the host computer system 330" and as having a second end 315 "configured for coupling to the flash memory card". In Mr. Platts-Mills' submission Figure 3 illustrates a non-cable USB device, not the least because the specification states in relation to the earlier device that what is needed is an interfacing system which simplifies both the attachment to host computer systems and configuration of flash memory cards from the end-user perspective. However, in making this submission, Mr. Platts-Mills accepted that his approach was a squeeze on Trek's approach to the construction of its own patent. Professor Kim was not cross-examined on Estakhri but in his first witness statement he comments at paragraph 57 that in direct contrast to Trek's invention, the Estakhri device requires a cable for connection to the host and has a separate memory card, both of which limit its portability.

153 I am not inclined to accept Mr. Platts-Mills' squeeze, especially without hearing Professor Kim on the matter of construction in relation to Estakhri. However, I have found that the presence of a cable does not in itself distinguish Trek's invention from the prior art. Moreover, it is clear to me that cable or no cable the Estakhri device is portable, reasonably compact and can have a USB plug for coupling directly to a USB socket on a computer. I note Professor Kim's comment about the limited portability of the Estakhri device but I have already observed that his evidence is influenced by his appreciation of the ThumbDrive rather than what would be generally understood by the term "portable". Thus, whilst it may be the case that the Estakhri device with a cable is less portable than the ThumbDrive, which does not require a cable, it is nonetheless portable. Moreover, the fact that the device has a removably coupled, flash memory card does not in my view distinguish Estakhri from the device Trek seeks to claim. Indeed, Trek seems to recognize this latter point in so far as it seeks to disclaim Yao which relates to a separable memory card and adapter module. Thus, I must conclude that Estakhri anticipates claim 1 as Trek wants to amend it.

154 I should now consider whether Trek's remaining claims are also anticipated by Estakhri. Mr. Platts-Mills alleges in his skeleton that Estakhri discloses a

device which falls within the scope of claims 3, 4 and 6. Claim 3 specifies a flash memory device and in so far as Estakhri discloses the use of a flash memory card, this claim is anticipated. Claim 4 requires the memory control device to control the flow of data to and from the memory device. Again I find this feature disclosed in that Estakhri refers, for example, to a flash memory module capable of write and read operations. Finally, the disclosure in Estakhri of a controller 327 as part of the flash memory card anticipates claim 6 of Trek's patent. Thus, I find that Estakhri anticipates claims 1, 3, 4 and 6 of Trek's patent as Trek seeks to amend it.

- 155 I turn now to Terasaki. The stated aim of Terasaki is to provide a PC card which is connectable to a plurality of information processing devices without losing the advantages, normally associated with the PC card, of being easily detachable, flexible and portable. In one embodiment the PC card is based on the PCMCIA standard and may function as a memory device for connection to both a computer with a USB socket and a computer with a slot for the card. The USB connection is achieved with a cable. The specification also lists alternative PC cards, such as CompactFlash, which could be used. Professor Kim in paragraph 56 of his first witness statement comments that in direct contrast to Trek's invention, the Terasaki device is not limited to USB protocol and is not portable. Rather it requires a USB connecting cable to connect to computers and in his opinion the need for a cable connection greatly diminishes the portability of the device.
- 156 In his submission to me Mr. Platts-Mills concluded that the USB cable may be an integral cable or a separate cable. He reached this conclusion in the light of a statement in paragraph 39 of the specification, which refers to data being transferred using the USB interface of the device by providing a connector for the USB or an entry for a connecting cable for the USB. When shown a PCMCIA card during his cross-examination Professor Kim pointed out how it would and could be adapted in the light of Terasaki to have either a detachable or captive USB cable which in his opinion probably would be 1.5 to 3 metres long to allow connection to a USB port at the back of a computer. However, he also commented that it would be an engineering miracle to incorporate a USB socket for a detachable USB cable on the smaller CompactFlash type of card.
- 157 I do not attach any weight to Professor Kim's comment about the portability of the Terasaki device since once again in my view his concept of portability is coloured by the size of the ThumbDrive. Moreover, in my view the skilled addressee reading Terasaki would recognize that the invention provides an arrangement which does not sacrifice the portability of the unmodified PC card to any significant extent. Therefore, in my view the size of the USB cable would be such that it can serve its purpose without impacting more than necessary on the portability of the device. Thus, the device might have a 1.5 metre cable, as Professor Kim suggested, but I do not consider that this would destroy its portability. Professor Kim is correct that the Terasaki device is not limited to the USB protocol but insofar as at least one embodiment employs this protocol, his point is neither here nor there. Moreover, I also do not consider his comment, concerning the engineering miracle required to incorporate a USB socket on a FlashCard, to be relevant to the matter I must decide since he did acknowledge in line with the teaching of Terasaki that it

would be possible to adapt a PCMCIA card to have a captive USB cable or to take a detachable USB cable.

- 158 Thus, I find that Terasaki anticipates claim 1 of Trek's patent as it is proposed to amend it. Furthermore, Terasaki discloses the features of claims 3, 4 and 6 of Trek's patent and so these claims are also anticipated.
- 159 The next document I need to consider is Ban which teaches a USB flash memory device which can be connected to a host platform by a USB cable. Although Professor Kim was not cross-examined on Ban, in his first witness statement at paragraph 58 he highlights the requirement for a cable as distinguishing the device disclosed in Ban from what Trek claims. Moreover, he states that a cable connection compromises the portability and universality of the device. In his closing statement Mr. Platts-Mills queried Professor Kim's comment that the cable connection compromises the universality of the device when the cable connection was a USB (Universal Serial Bus) cable. It seems to me that by "universality" Professor Kim might be referring to the suitability of the device for use with laptops as well as with other types of computers, such as tower PCs. However, I accept that whatever he might have intended, it is not sufficiently clear for me to rely on but this does not mean that I should dismiss this document altogether. I do agree with Mr. Platts-Mills that the Ban device is universal to the extent it employs the USB standard. Moreover, once again I am not persuaded by Professor Kim's opinion of the impact the cable has on the portability of the device. In my view Ban discloses a compact, portable device. Therefore, I find that Ban anticipates claims 1, 3, 4 and 6 of Trek's patent in its amended form.
- 160 The sixth disclosure M-Systems relies on for anticipation comprises literature concerning a USB device known as MacHASP USB. This literature is exhibited as Appendix 27 to Dr. Fenster's first witness statement. Just prior to the hearing before me a dispute arose about its publication date. Apparently the second page of Dr. Fenster's Appendix 27 carries a copyright notice with the date 1998 but this is indistinct on my copy. This issue was addressed by Mr. Margalit in his witness statement where he states that the literature was indeed published in 1998 and that several thousand copies were printed and distributed. An enlargement of the bottom part of the relevant page was also provided at the hearing so that the 1998 copyright notice is legible. I am content therefore that this literature is prior art within the terms of section 2(2).
- 161 As described the MacHasp USB is used to protect software from piracy and illegal use by denying access to the software and preventing its execution unless authorized. This works by the protected application checking whether a MacHASP USB with the correct code is connected to the computer's USB. If the MacHASP code is confirmed, the application is executed. If not, the application will not run. The literature also states that the MacHASP USB includes 90 bytes of read/write memory to save password, user or application specific information and parts of source code. Finally, a picture of a MacHASP USB shows that it connects to the USB socket of a computer without a cable and that in appearance it is similar to Trek's ThumbDrive.
- 162 Professor Kim dismisses this prior art in his first witness statement on the grounds that the MacHASP USB is a software protection tool and not a mass

storage device. I took Mr. Sawyer to agree with this view when during his cross-examination he said that he would have felt diddled if he had bought this device on the basis that it functions as an alternative to a floppy disk only to discover that holds just 90 bytes. In his submission to me Mr. Platts-Mills did not accept that the MacHasp USB is not intended for data storage since this was exactly the purpose of the 90 bytes of read/write memory. Moreover, whilst he accepted that 90 bytes of memory is not a lot, in his view it would still permit the transfer of data from one computer to another and so operate to function as an alternative to a magnetic disk or CD-ROM.

- 163 The question I must answer in respect of the disclosure concerning the MacHASP USB is the same as the one I have already considered in relation to Abbott. In that case I concluded that Abbott does not disclose a device with sufficient memory to enable it to function as an alternative to a magnetic disk or CD-ROM. In so far as the MacHASP USB has a significantly smaller memory capacity than that estimated for the Abbott device, my conclusion in respect of the MacHASP USB must be the same as that for Abbott. Indeed on this point I find Mr. Sawyer's reaction to the MacHASP USB particularly persuasive. I therefore find that the MacHASP literature does not anticipate claim 1 of Trek's patent as it is proposed to amend it.
- 164 Evidence about the SanDisk ImageMate USB CF Card Reader forms part of Dr. Fenster's witness statement. In addition reviews of this Reader are exhibited in Appendix 28 to this witness statement. Dr. Fenster describes this device as a CompactFlash reader that connects to the USB bus and he states that from an inspection of the device it includes all the elements claimed in claims 1, 3, 4 and 6 of Trek's patent. Professor Kim comments in his first witness statement that the SanDisk ImageMate USB CF Card Reader requires a separate memory card in order to store data, thus making it more cumbersome than Trek's invention. Moreover, he states that in contrast to Trek's claimed invention, the SanDisk device does not have a direct connection to the host, which limits its portability.
- 165 In his opening skeleton Mr. Platts-Mills points out that this CompactFlash card reader is similar to Estakhri and adds little to it. I agree and I find that claims 1, 3, 4 and 6 of Trek's patent, as it is proposed to amend it, are anticipated by the SanDisk ImageMate USB CF Card Reader. As with Estakhri I am not persuaded by Professor Kim's comments concerning the separate memory card and the lack of a direct connection.
- 166 The last item of prior art relied on by M-Systems is the FujiFilm (RTM) Image Memory Card Reader SM-R1. Dr. Fenster explains in his witness statement that this device was disassembled to identify its components and as a result he claims that the card reader with a Smart Media (RTM) card inserted discloses all the elements of claims 1, 3, 4 and 6 of Trek's patent. Professor Kim deals with this piece of prior art in his first witness statement in much the same way as he deals with SanDisk ImageMate USB CF Card Reader by claiming that the separate memory card and the need for a cable reduce the portability of the device. Mr. Platts-Mills observes in his opening skeleton that this card reader is like the SanDisk ImageMate USB CF Card Reader and I agree with him on this point. It follows in my opinion that this card reader also anticipates claims 1, 3, 4 and 6 of Trek's patent as it is proposed to amend it.

Assessment on obviousness

- 167 I have found that claims 1, 3, 4 and 6 of Trek's patent, as it is proposed to amend it, are anticipated. I therefore need to consider whether any of the remaining claims could provide the required inventive step. Claim 2 introduces the limitation that the memory control device is operative to receive a password and compare it with a password stored in the memory device to determine whether access to the contents of the memory device is authorized. The other remaining claim, claim 5, introduces a manually operated switch movable between a first position in which writing of data to the memory device is enabled, and a second position in which writing of data to the memory device is prevented.
- 168 *Windsurfing* requires me to decide whether the difference or differences between the claimed inventive concept and the prior art provide an inventive step. Estakhri, Terasaki, MacHasp, ImageMate and the FujiFilm SM-R1 are available for obviousness. In my opinion the difference introduced by claim 2 is password protection for memories and the difference introduced by claim 5 is a manual write protection switch. Dr. Fenster opines in his witness statement that these differences fell within the common general knowledge at the relevant time and he was not challenged on this when cross-examined. Mr. Platts-Mills also makes the point in his opening skeleton that these two differences would fall within the common general knowledge of computer users quite apart from the skilled addressee in the art. This view was not challenged by Mr. Prescott and I think Mr. Platts-Mills must be correct. Therefore, I cannot find anything in claims 2 and 5, which could provide the necessary inventive step.
- 169 At the hearing before me M-Systems pursued obviousness in the light of Estakhri and Terasaki on the assumption that I might construe the patent in a way that avoids anticipation. In the event I have construed Trek's patent such that claims 1, 3, 4 and 6 are anticipated by both these documents and other prior art. Mr. Platts-Mills did not seek to argue that the complete removal of a cable from Estakhri and Terasaki would be obvious but in view of Mr. Prescott's acceptance that Trek's claimed device could include a stubby cable, Mr. Platts-Mills pursued a case that it would be obvious to provide the devices disclosed in Estakhri and Terasaki with a very short cable of an inch or two.
- 170 When reviewing the law on obviousness above, I recognized that invention can reside in something which with hindsight is simple and obvious or in something which is easy to put into practice once you have had the idea. There is certainly nothing complex in producing the devices disclosed in Estakhri and Terasaki with short USB cables of two inches or less. However, the question I would need to consider is why would the skilled addressee think of doing this rather than having a somewhat longer cable which from the evidence before appeared to be commonplace at the relevant time. Expert evidence in relation to this question would be very helpful but there is none. In view of this and in view of my findings above on how the claim should be construed, I do not think it would be wise for me to decide this matter when there is no need to do so. Therefore, I have decided not to address this matter in this decision and I am content to leave it unresolved.

Conclusions on anticipation and obviousness

171 To sum up this section of my decision I have found that claim 1, as Trek seeks unconditionally to amend it, and claims 3, 4 and 6 are anticipated and the remaining claims 2 and 5 are obvious. I have left open the question whether a device with a stubby USB cable of two inches or less would be inventive since this is something I do not need to decide.

Summary and Order

172 In this decision I have considered a wide range of issues. Indeed I believe things have been made considerably more complex than necessary since the issue is fundamentally a very simple one. Do Trek's application and patent disclose and claim a solid state data storage device which can function as an alternative to a magnetic disk or CD-ROM and which can be plugged into a USB socket of a computer without the use of a cable? I have found that the application and patent do not disclose and are not limited to such a device or even to such a device with a stubby cable. As described there is no restriction on how the USB plug of the device is coupled to the remainder of the device, it could be by a cable or it could be without a cable. The reader is simply not told. I have already observed that Trek's ThumbDrive range was launched just a few days after it filed the application and that this device was in development prior to that. Therefore, Trek could have illustrated the "form factor" of its ThumbDrive in its application but it did not do so and as a result it is now forced to clutch at imaginary straws in an attempt to redefine the invention.

173 On the basis of my construction of the application and the patent I have found that the matter disclosed in the specification of the patent does not extend beyond that disclosed in the application for the patent, as filed. Secondly, as I have construed the patent, it is adequately clear and no question of insufficiency arises. Thirdly, I have decided not to exercise my discretion to allow the unconditional amendment requested on 24 June 2004 because Trek has failed to disclose matters relevant to that request. Moreover, I have found that the requested amendment would introduce additional matter contrary to section 76(3)(a) of the Act. I have also decided not to exercise my discretion to allow the addition of new claims 7 and 8, as requested on 15 June 2005, again because Trek has not disclosed matters relevant to this further request. Finally, I have found that claims 1, 3, 4 and 6 of the patent, as Trek proposes unconditionally to amend it, are anticipated and claims 2 and 5 are obvious. Moreover, although the amendment requested on 24 June 2004 was unconditional, I have also found that at least claim 1 of the patent as granted is anticipated by at least Yao.

174 In view of my findings I refuse the amendments requested under section 75 of the Act and I order revocation of the patent under section 72 of the Act. I should also make clear that I do not consider it appropriate to allow Trek a further opportunity to amend to overcome my findings in relation to novelty and inventive step in view of Trek's unwillingness to disclose matters relevant to the requests already before me.

Costs

- 175 M-Systems have won and are entitled to an award of costs but I agreed at the hearing to give the parties an opportunity to make submissions on this matter once I had reached my decision. Therefore, I allow the parties two weeks to make submissions on costs.

Appeal

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

R J WALKER

Divisional Director acting for the Comptroller