

offered entry into a lost product return service. The lost product return service relies on a radio frequency identification (RFID) tag associated with a product and the tag having a printed label advertising a reward for return of the product to a return address. At the return address, the RFID tag is scanned and a database accessed to identify the product's owner; the database may be provided at a remote location and accessed via the Internet. The product is then returned to the owner, who is charged for the service.

- 6 During the course of examination, claims directed towards a method for obtaining warranty registration of products were dropped in favour of claims for a computer system for enabling return of lost objects to their owners. The application currently has one independent claim, claim 1, which reads as follows:

“A computer system for enabling return of lost objects to their owners comprising:

a plurality of radio frequency identification (RFID) tags, each applied to an object, each object having an owner, each tag having a unique identification code number electronically recorded within the tag and a visible printed request that if lost, any finder may contact an identified participating courier package or return object delivery service;

a computer system, the computer system storing the unique identification code number and corresponding owner information, including owner address information and owner billing account information, the computer system being accessible over the Internet by the identified package delivery service;

a plurality of RFID tag readers; wherein upon return of any lost object to a package delivery service, an RFID tag reader is operative to read the tag identification code number so that the package delivery service can automatically access the corresponding owner information over the Internet from the computer system, to enable the package delivery service to return of [sic] the object to the owner using the owner address information and charge the owner for the return service using the billing account information.”

- 7 Claim 2 relates to the payment of a reward to the finder of the object and claim 3 to printing a notification of such a reward onto an RFID tag. Claim 10 relates to displaying the reward information on the display screen of an electronic product. Claim 4 focuses on automatically informing the owner that the lost object has been found, whereas claims 5-9 define preferred features of the RFID tag assembly.
- 8 The application acknowledges that lost property recovery systems using barcodes attached to products are known. For example, US patent US5841116 discloses a lost property recovery system using barcode labels corresponding to a unique owner, and a system wherein the labels are placed on the owner's objects and data identifying the owner stored on a computer at a central location. If the object is lost and then found by a third party, ownership can be determined by use of a barcode scanner and transmission of a query to the central computer.
- 9 The application also acknowledges that methods for tracking and locating objects using RFID tags are well known, although not in the context of lost property recovery systems.

The Law

- 10 The examiner has argued that the claimed invention lacks an inventive step as required under section 1(1)(b) and relates to a method for doing business excluded from patentability under section 1(2)(c). The relevant parts of the Act read as follows:

1(1) A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say -

(a) the invention is new;

(b) it involves an inventive step;

(c) it is capable of industrial application;

(d) the grant of a patent for it is not excluded by subsections (2) and (3) below; and references in this Act to a patentable invention shall be construed accordingly.

1(2) It is hereby declared that the following (among other things) are not inventions for the purposes of this Act, that is to say, anything which consists of -

(a) a discovery, scientific theory or mathematical method;

(b) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever;

(c) a scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer;

(d) the presentation of information;

but the foregoing provision shall prevent anything from being treated as an invention for the purpose of this Act only to the extent that a patent or application for a patent relates to that thing as such.

- 11 These provisions are designated in section 130(7) as being so framed as to have, as nearly as practicable, the same effect as the corresponding provisions of the European Patent Convention (EPC), i.e. Article 52.

Interpretation

- 12 In July 2005, shortly before issue of the second examination report, Peter Prescott QC, sitting as a Deputy Judge of the High Court, handed down judgment in *CFPH*¹ which raised questions regarding the UK Patent Office's practice in dealing with applications considered to relate to matter excluded by section 1(2).
- 13 In response to this judgment, the UK Patent Office issued a practice notice dated 29th July 2005 announcing an immediate change in the way that it examines applications for patentability. In responding to the second examination report, the applicant's patent agent argued that the claimed invention meets the requirements for patentability according to the methods of analysis set forth in *CFPH*, and, by implication, accepts that *CFPH* provides the appropriate test to decide the matter under section 1(2), i.e.:

Identify what is the advance in the art that is said to be new and not obvious (and susceptible of industrial application).

¹ *CFPH LLC's Application [2005] EWHC 1589 (Pat)*

Determine whether it is both new and not obvious (and susceptible of industrial application) under the description “an invention” in the sense of Article 52 of the European Patent Convention (EPC) - broadly corresponding to section 1 of the Patents Act 1977.

- 14 Once the new and non-obvious advance has been identified, Mr Prescott suggests² that it would often be possible to determine whether this was an advance under the description of an invention by asking “Is this a new and non-obvious advance in technology”. However, because of the difficulty sometimes associated in determining what is meant by technology, Mr Prescott says that if there is any doubt in this regard then it will be necessary to have recourse to the terms of Article 52 of the EPC. Subsequent judgments issued by the High Court (*Halliburton*³, *Shoppalotto*⁴, *Crawford*⁵ and *RIM v Inpro*⁶) all point to a similar requirement for a technical advance in order to pass the test for patentability.

Analysis

- 15 Having regard to the invention defined in claim 1 of the application, the applicant argues that there is a two-fold advance that is both new and non-obvious, namely the provision of RFID tags on objects that might be lost and tag readers that are connected over the Internet to a remote database holding information regarding owners of the objects.
- 16 The examiner asserts that the use of RFID tags in lost and found systems is obvious in light of the following documents:
- D1: US5180192 (Herbert)
- D2: US5841116 (Lewis)
- D3: US5963134 (Bowers)
- 17 All three documents were published before the earliest priority date of the application. D1 and D2 both relate to the recovery of lost items by scanning barcode labels fixed to an item and linking the barcode data with information about the owner held in a central database. D2 is particularly relevant in that it discloses use of a barcode scanner connected to a central database via a telecommunication network. D3 discloses an inventory system using RFID tags to uniquely identify documents, and specifically refers to the use of RFID tagging as an improvement to barcode labeling.
- 18 The applicant does not accept the equivalence of barcode and RFID technologies in the particular application to which the invention relates. The applicant’s patent agent says that “the invention has advantages over and above what one would expect by mere substitution of RFID for barcode labeling”, because it “comprises a web server which can be accessed remotely at the point where a lost object is returned so as to obtain ownership data”.
- 19 The agent goes on to say that “the most basic information an RFID tag contains is a number that is then mapped to a server that gives the product description and any other pertinent ownership and registration data. For the relevant purpose of lost and

² See CFPH paragraph 97

³ *Halliburton Energy Services Inc v Smith International (North Sea) Ltd and others* [2006] RPC 25

⁴ *Shopalotto.com's Application* [2005] EWHC 2416 (Pat)

⁵ *Cecil Lloyd Crawford's Application* [2005] EWHC 2417 (Pat)

⁶ *Research In Motion UK Ltd v Inpro Licensing* [2006] EWHC 70 (Pat)

found technology with warranty tracking, the RFID tag or label has a critically important technology aspect over barcodes. That is, it can be written or updated in real-time, at point of purchase or at other post-sale event....Such update is not possible with barcode technology". It is further suggested that the RFID tag may also store information relating to the object to which it is affixed, such as manufacturing dates, serial numbers and ownership data that cannot be achieved with barcodes. A further advantage provided by RFID technology "is that a tag can be interrogated electronically without a direct line of sight required by barcodes".

- 20 I consider that the advantages provided by replacing barcodes with RFID technology to be well known at the priority date of the application. This assessment is based primarily on the applicant's own disclosure at pages 6 and 7 of the description which refers to the availability of an off-the-shelf inductive RFID tag for eliminating common problems associated with barcodes. (Indeed, it is this off-the-shelf RFID tag, produced by Motorola (RTM) under the "BiStatix" (RTM) brand, which is used in the applicant's lost and found system). The disclosure at columns 1 and 2 of D3 provides further support for this assessment, where the disadvantages of barcode labels in relation to RFID tags are clearly set out.
- 21 I should also point out that the disclosure at pages 15 to 16 of the description also points to the equivalence of barcodes and RFID tags in a lost and found system, where specific mention is made of reading "unique product identification information, preferably automatically by reading embedded RFID information or a barcode in or on the label itself".
- 22 In view of the known advantages of RFID tags over barcode labels, I agree with the examiner that a man skilled in the art would have readily appreciated before the priority date of this application that RFID tags could be used to improve upon the barcode technology of the lost and found systems disclosed in D1 and D2. As a result, I find that the first aspect of the two-fold advance referred to above to be obvious.
- 23 With regard to the second aspect of the two-fold advance, the examiner asserts that remote access to a database via the Internet is not inventive in view of the disclosure in D2 of barcode scanners linked to a central database over a communications network. In D2, the X.25 communications gateway provides multi-user communication via packet switching and routing of data files across a telecommunications network. This network provides precisely the same functionality as the Internet link of the present application, differing only, I presume, in the communication protocol required to establish a link between remote sites and the central database.
- 24 In the context of the present application, I agree with the examiner that there can be no inventive merit in providing a lost and found system that communicates over the Internet to one that communicates by any other network protocol. I consider that any benefit of using the Internet to allow multiple users to access data held in a single database to be entirely conventional, and common to all packet switching networks. As such, I find that the second aspect of the two-fold advance to be obvious, and that claim 1 as a whole lacks an inventive step.
- 25 The preferred tag arrangements defined in claims 5-9 are acknowledged in the application as being present in off-the-shelf RFID tags. As such, these claims are also considered to lack an inventive step.
- 26 Turning to the invention defined in claim 2, it is now apparent that the new and non-obvious advance over the prior art is the payment of a reward to the finder of a lost

object by the return delivery service. This is purely a financial consideration, providing nothing at all by way of a technical advance. I therefore consider that claim 2 relates to a method for doing business.

- 27 The system defined in claim 3 provides instructions regarding the reward to be printed onto the RFID tag. The application acknowledges that printing onto RFID tag labels is known, and so the novel and non-obvious advance provided by the invention lies in the promise of a reward to the finder on return of the lost object to the return delivery service. This, again, can be regarded as a financial consideration, and in no way provides the necessary technical advance required to pass the test for patentability. The same can also be said of claim 10, where information regarding the reward is advertised on a display screen associated with the lost object.
- 28 Claim 4 relates to automatic notification of the owner when an object has been found and arranging for the owner's credit card to be charged for the service. The new and non-obvious advance rests in the information conveyed to the owner and the automatic charging for the service, both of which I consider to be actions essential to the smooth running of the lost and found business. I can find nothing in claim 4 that provides a new and non-obvious advance in technology.

Conclusion

- 29 In summary, I have found that claims 2-4 and 10 are not new and non-obvious (and susceptible of industrial application) under the description "an invention". I have also found that the remaining claims (claims 1, 5, 6, 7, 8 and 9) lack an inventive step in the light of documents D1, D2 and D3. I have read the specification in its entirety and cannot identify anything that could form the basis of a patentable invention. I therefore refuse the application under section 18(3) as failing to meet the requirements of sections 1(1) and 1(2).

Appeal

- 30 Under the Practice Direction to Part 52 of the Civil Procedure Rules, any appeal must be lodged within 28 days. It should be noted that if the applicant were to succeed at appeal, the opportunity to amend the application would appear limited in view of the fact that the extended period for placing the application in order, which is available as of right under section 110(3), has expired.

H Jones

Deputy Director acting for the Comptroller