



PATENTS ACT 1977

APPLICANT Michael Oluwaseun Bamidele

ISSUE Whether patent application GB 1004028.5 complies with sections 1(1)(a), 1(1)(b) and 1(2)(c)

HEARING OFFICER B Micklewright

DECISION

Introduction

- 1 Patent application GB 1004028.5 was filed on 11 March 2010 in the name of Michael Oluwaseun Bamidele. During the examination process the examiner argued that the claimed invention was not novel, lacked an inventive step, was excluded from patentability as a program for a computer as such and a method of doing business as such, and included added subject matter not present in the specification as originally filed. The examiner has indicated that there are also clarity issues with the claims which would need to be addressed before grant. Despite several rounds of correspondence between the Examiner and Mr Bamidele these issues remain unresolved. Mr Bamidele initially requested a hearing but then requested that a decision be made based on the papers of file.

The invention

- 2 The invention relates to the generation, transmission and reproduction of electronic receipts using an Electronic Point Of Sale ("EPOS") device. The EPOS device itself may comprise various different features for user interaction and for the provision of electronic receipts. The invention also relates to the use of a biometric credit or debit card for user authentication based on a fingerprint scan.
- 3 Amended claims were filed on 27 March 2015 and read as follows:

1. Bespoke software applications (version 1 and version 2) executable on a processor to enable

(a) an EPOS hardware unit to generate ereceipts on completion of a biometric based payment authentication process,

(b) an EPOS hardware unit to wirelessly transmit the ereceipts to portable personal computers (bespoke text files) and smart phones (SMS or bespoke text files) and

(c) a smart phone or portable personal computer to manage, manipulate, data share and reproduce the receipt information stored on a database on the smart phone or portable personal computer.

2. An EPOS hardware unit which is configured to work with the bespoke software applications in claim 1, comprising of the combination of existing and non existing components itemised in the specification.

3. An EPOS hardware unit which is configured to work with the bespoke software applications in claim 1, which comprises of the non existing components of a 4G transceiver, WiFi transceiver, biometric fingerprint scanner, voice instruction speakerphones and Bluetooth transceiver.

4. An EPOS hardware unit which is configured to work with the bespoke software applications in claim 1 and also configured to work with central online servers and local database servers.

5. An EPOS hardware unit which is configured to work with the bespoke software applications in claim 1 and also configured to receive software patches and updates online.

6. The biometric based payment authentication method comprising the bespoke software application (version 1) of claim 1, biometric debit and credit cards, biometric data assigned to the biometric debit or credit cards, biometric data stored on central online servers or local database servers and the EPOS hardware unit (cluster or singular units).

The law

4 The relevant portions of the Patents Act 1977 are (emphasis added):

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**...

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) ...

(b) ...

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

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

and

76(2) No amendment of an application for a patent shall be allowed under section 15A(6), 18(3) or 19(1) if it results in the application **disclosing matter extending beyond that disclosed in the application as filed.**

Added subject matter

- 5 The added matter question raised by the examiner relates to the “biometric based payment authentication process” in claim 1. The examiner argues that there is only disclosure in the specification as filed of a biometric credit or debit card and not for a biometric based payment authentication process without a biometric credit or debit card. The matter is difficult to determine because the description is not particularly clear. There are stand-alone references to biometric authentication which do not explicitly refer to a biometric credit or debit card (see for example the bottom of page 1) but the system described in the specification as originally filed does seem to point specifically to a card-based system (see for example the reference to a “biometric card slot” on page 2). On balance I would take the view that, read as a whole, the skilled person would understand that the specification as originally filed envisages solely a biometric based debit or credit card based payment authentication process and there is therefore no support for any other biometric based authentication processes. This matter does not however affect my decision on the patentability of claim 1 and I will not therefore consider it any further.

Novelty and inventive step

- 6 Whether or not the invention defined by the present claims involves an inventive step is assessed using the following four-step test first formulated by the Court of Appeal in *Windsurfing International Inc. v Tabur Marine (Great Britain) Ltd*¹ and restated by that court in *Pozzoli SPA v BDMO SA*²:

(1)(a) *Identify the notional “person skilled in the art”*

(1)(b) *Identify the relevant common general knowledge of that person;*

(2) *Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;*

(3) *Identify what, if any, differences exist between the matter cited as forming part of the “state of the art” and the inventive concept of the claim or the claim as construed;*

(4) *Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?*

My assessment of inventive step will be based on this test.

Applicant’s arguments

- 7 In his letters, particularly that dated 30 March 2015. Mr Bamidele discusses the combination of what he refers to as “non existing components” and “existing

¹ *Windsurfing International Inc. v Tabur Marine (Great Britain) Ltd*, [1985] RPC 59

² *Pozzoli SPA v BDMO SA* [2007] EWCA Civ 588

components". He gives examples of the former as: "4G transceiver", "fan cooling system" and "biometric credit cards and debit cards". None of these were unknown at the priority date of this application. I take it that by "non existing components" he means either things which were not readily commercially available at the priority date of the application or things which were not commonly present in electronic point of sale terminals at that date. Mr Bamidele argues, and provides some examples to demonstrate, that it is possible for an invention to be found novel and inventive when it includes a "combination of existing components... particularly where the invention combines these parts in a novel and non obvious way". I agree with him in this: an invention may be found novel and inventive either because it contains novel and inventive components or because it combines known components in a novel and inventive way.

- 8 The Examiner objected to claim 1 as lacking novelty and claims 2 to 6 as lacking inventive step on the basis of prior art document WO 02/09005 A1 ("IN2M"). This document discloses a system for transmission of electronic receipts from a vendor device to a purchaser device and also discloses the use of a biometric input device to verify user identity. Once the user is identified, for example by a thumb print, an authorisation code is forwarded to the purchaser's device and a request for funds is then forwarded to the purchaser's bank lender. These funds are then transmitted to the vendor. An electronic receipt is then transmitted to the purchaser's device, which could be a personal digital assistant (PDA), a wireless phone or a smartphone.
- 9 The electronic receipts may comprise "purchase transaction information" with various examples given, including: price, item descriptions, date and time. These are examples of "text files". The purchaser's device stores the electronic receipt locally but it may also be transmitted to other devices and systems such as a web server.

The person skilled in the art

- 10 The person skilled in the art may be taken as one involved in the design or production of electronic point of sale terminals or a team of people working in and with experience in this field.

Claim 1

- 11 Claim 1 is presented as a claim to software, but it also defines properties of the (EPOS) hardware on which the software is executable and of a further (user) device in communication with that hardware. This creates a measure of confusion as to the scope of the invention defined by the claim (as I have noted, general objection has been raised regarding the clarity of the claims but specific objections have not yet been detailed). For the purpose of assessing the novelty of the claim I have taken each of the features defined in the claim (whether relating to the software, the EPOS hardware unit or the smart phone or portable personal computer) as essential aspects of the invention. In other words, for the invention defined in claim 1 to be found not novel it is necessary for the cited prior art to disclose each of the features defined for the software, and for the EPOS hardware unit, and for either the smart phone or the portable personal computer.
- 12 There are however certain words or expressions used in the independent claim which do not provide any limitation in the context in which they are used: "Bespoke

software” is taken to mean no more than software which has been written specifically to be executable to cause the processor on which it is executed to perform the defined operation; in other words, “bespoke software” means no more than “software” in the context in which it is used. Likewise, in the expression “bespoke text files”, “bespoke” is again a non-limiting and redundant term. The claim also defines “software applications (version 1 and version 2)”, but there is no distinction defined, either in content or in function, between the two versions, or between those versions and any other. Therefore “(version 1 and version 2)” adds nothing to what is defined in the claim and may be ignored.

- 13 I have already commented that there is a lack of support for the “biometric based payment authentication” of claim 1. There is also a question as to whether the term relates to user identification or authorisation or both. There is little information in the description as to how the process works in practice, except, as I have already said, that some sort of biometric credit or debit card is used as part of a transaction. I therefore conclude that for the purposes of novelty and inventive step I should construe this term broadly to include any payment process which involves a biometric element to either identify a user or authenticate a transaction. For completeness I note that claim 6 limits the claimed invention to the use of biometric debit or credit cards. My analysis of claim 6 will therefore deal with the situation where claim 1 is limited in this manner to overcome the added matter issue.
- 14 IN2M clearly discloses all the features of claim 1 given my construction of the claim. It relates to an electronic point of sale system which generates electronic receipts and transmits them to a purchaser’s device by way of a file reading onto the “bespoke text file” of claim 1 of the present invention. It is implicit that the file would be stored in some form of database on the device. This file may then be manipulated on the purchaser’s device. IN2M also discloses a “biometric input device” to verify a user’s identity. Thumb prints are listed as one of the examples of biometric input. Claim 1 therefore lacks novelty over IN2M.

Dependent claims

- 15 Claim 2 defines the EPOS hardware unit as comprising a “combination of existing and non existing components itemised in the specification”. It is not clear what is meant by “non existing components” and what the distinction is between such components and “existing components. As noted above, in his letter of 30 March 2015 Mr Bamidele gives certain examples of what he describes as “non existing components”, none of which were novel in themselves at the priority date of the application. I construe this claim to relate to all components listed in the specification, in particular those listed in the key of pages 6-9. It is also not clear whether claim 2 is limited to all components listed in the specification, or whether it includes any combination of such components. In my view the words used in claim 2 seems to imply the latter and this is how I will construe the claim. Based on this construction the claim is no narrower in scope than claim 1 and therefore lacks novelty over IN2M. I will however consider if there is any combination of components which could be considered inventive in my analysis of claim 3.
- 16 Claim 3 is more specific than claim 2 in that it defines the EPOS hardware unit comprising five additional components which are referred to as being “non existing”; these are: “4G transceiver, WiFi transceiver, biometric fingerprint scanner, voice

instruction speakerphones and bluetooth transceiver”. This specific combination of components is not disclosed in IN2M and, given the number of components listed in the description, there are inevitably other components or combinations of components which are not explicitly or implicitly disclosed in IN2M, such as a miniature fan cooling system, a USB port, an integrated coin slot, or any combination of these features.

- 17 The components set out in the description are all conventional in and of themselves. They would be well known to the person skilled in the art who would give them consideration for inclusion in the system of IN2M. To take two of the examples referred to by Mr Bamidele in his letter, a fan cooling system is not disclosed in IN2M. Fan cooling systems for microprocessor-based systems and devices are however commonplace and it would be obvious to the skilled person that a fan cooling system might be added. Similarly, a 4G transceiver, whilst not disclosed in IN2M, would in my view be an obvious inclusion to the person skilled in the art, particularly given that IN2M refers to the use of smart phones and thus mobile phone technology was envisaged. Moreover the fan cooling system and the 4G transceiver do not combine to interact with each other in any new and inventive manner. There is no synergy between these components. Thus claim 3 lacks an inventive step and I cannot find any combination of components covered by claim 2 which would involved an inventive step over IN2M.
- 18 Claim 4 defines the EPOS hardware unit working with “central online servers and local database servers”. It is not clear exactly in what sense certain servers are intended to be “local” servers or “central online” servers. Nor is the function of these servers apparent. Claim 4 is therefore very broad. IN2M discloses few details of the vendor device, choosing to focus instead on the purchaser’s device, but it would be clearly obvious to the skilled person that the vendor device would be likely to communicate both with local database servers and remote servers, for example in managing stock levels. Claim 4 does not therefore involve an inventive step.
- 19 The difference between the cited prior art and the invention of claim 5 is only that the EPOS hardware unit is configured to receive software updates (or fixes) online. This is entirely conventional and claim 5 lacks an inventive step.
- 20 The key inventive feature of claim 6 seems to be the provision of biometric debit and credit cards for the biometric based payment authentication method of claim 1, where biometric data is stored on at least one of the remote or local servers as well as on the EPOS unit itself. IN2M discloses some biometric based payment authentication but does not explicitly specify the use of biometric debit or credit cards. These were however a well known concept at the priority date of the present application if not in common usage. I note that IN2M makes frequent reference to credit and debit cards as remuneration for goods and services in its discussion of the prior art and it is apparent that the electronic receipt system with its biometric identification could be used with such cards.
- 21 The difference then between the disclosure of the IN2M and the inventive concept defined in claim 6 is therefore only the specific use of a biometric based payment card, and the storage of biometric data. The skilled person, when considering how to implement the biometric system disclosed in IN2M, would immediately consider using it with a credit or debit card. Moreover If biometric payment is used it is

obvious that some biometric data would be stored at or in association with the vending device and at a remote server, even if only temporarily. Claim 6 does not therefore involve an inventive step. Furthermore, if claim 1 was limited to biometric credit and debit cards, although the claim would then be novel over IN2M it would not involve an inventive step for the same reasons.

22 In summary I have found that claims 1 and 2 lack novelty and claims 3 to 6 lack an inventive step.

Excluded matter

23 Having determined that none of the claims are novel and inventive it is not necessary for me to go on to consider whether the invention is also excluded from patentability, but for the sake of completeness I will briefly do so.

24 The Examiner has objected to the invention defined in claim 1 as being both a program for a computer and a method for doing business. I note that this objection was not raised until the third examination report, of 24 June 2015. There is no subsequent letter on file from Mr Bamidele (or his representative). Since Mr Bamidele has not exercised his right to attend or be represented at a hearing I do not have the benefit of any argument which he may have made himself or which might have been presented on his behalf.

25 The Court of Appeal in *Aerotel Ltd v Telco Holdings Ltd & Ors*³ set out the following four-step test to determine whether an invention is excluded from patentability:

(1) Properly construe the claim;

(2) Identify the actual contribution;

(3) Ask whether it falls solely within the excluded subject matter;

(4) Check whether the actual or alleged contribution is actually technical in nature.

26 In *Aerotel* the Court of Appeal provided useful guidance in relation to determining the contribution. In paragraph 43 of this judgment Jacob LJ said:

“The second step – identify the contribution - is said to be more problematical. How do you assess the contribution? Mr Birss submits the test is workable – it is an exercise in judgment probably involving the problem said to be solved, how the invention works, what its advantages are. What has the inventor really added to human knowledge perhaps best sums up the exercise. The formulation involves looking at substance not form – which is surely what the legislator intended.”

Properly construe the claim

27 I have discussed the construction of claim 1 above in relation to novelty and inventive step.

³ *Aerotel Ltd v Telco Holdings Ltd & Ors* Rev 1 [2007] RPC 7

Identify the actual contribution

- 28 Although there is not an “actual contribution”, claim 1 lacking novelty, it seems to me that what the invention is in substance is:

Software to cause an electronic point of sale device to generate electronic receipts on completion of biometric payment authentication, and to wirelessly transmit these to portable computer devices or smart phones, where they are stored in a database.

Ask whether it falls solely within the excluded subject matter, and check whether the contribution is technical in nature

- 29 The contribution essentially brings together two elements: a biometric payment authentication process and a process for generating electronic receipts and transmitting them to a customer’s device. There is no contribution in the way the biometric system works, or in any new technical way of generating electronic receipts. Nor is there any contribution in the specific arrangement of hardware. Rather the contribution lies in the administrative, organisational, commercial process for authorising a payment and then generating a receipt and delivering that receipt to the customer. These are in my view entirely administrative steps and the contribution is therefore a method of doing business as such.
- 30 In relation to the computer program exclusion, the invention is not excluded merely because it is implemented in software. The question to be answered is whether it provides some relevant technical contribution or whether it is no more than a program for a computer as such and is therefore excluded from patentability. To assist in determining whether a computer program makes a technical contribution the UK Courts have, in *AT&T Knowledge Ventures/Cvon Innovations*⁴ and reworded slightly in *HTC v Apple*⁵, set out the following signposts:

(i) whether the claimed technical effect has a technical effect on a process which is carried on outside the computer;

(ii) whether the claimed technical effect operates at the level of the architecture of the computer; that is to say whether the effect is produced irrespective of the data being processed or the applications being run;

(iii) whether the claimed technical effect results in the computer being made to operate in a new way;

(iv) whether the program makes the computer a better computer in the sense of running more efficiently and effectively as a computer;

(v) whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.

⁴ *AT&T Knowledge Ventures/Cvon Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat)

⁵ *HTC v Apple* [2013] EWCA Civ 451

- 31 The process performed outside of the electronic point of sale hardware unit and outside of the user device (smart phone or portable personal computer) is purely commercial and administrative and is not technical in nature. There is no technical effect on a process carried on outside the computer. The architecture of the electronic point of sale hardware unit or of the smart phone or portable personal computer is not affected. The invention relates to the type of data being processed; it does not provide any change to any of these computing devices which will affect their performance when any other data is processed on them. Furthermore the electronic point of sale hardware unit, the smart phone and the portable personal computer does not operate in any new way as a result of the invention. None of the electronic point of sale hardware unit, the smart phone or the portable personal computer run more efficiently or effectively as computer devices. Finally the invention does not address any technical problem; it relates to commercial activity. There is no technical problem overcome by the invention.
- 32 The claimed invention therefore makes no technical contribution and, having considered it with regard to these five signposts, it is no more than a program for a computer as such and lacks any relevant technical contribution which would render it patentable.
- 33 The invention defined in claim 1 therefore lies solely in the excluded fields of a method of doing business as such and a program for a computer as such. It is therefore excluded from being patented as both a method for doing business and a program for a computer.

Conclusion

- 34 I have found that the application lacks novelty, inventive step and is excluded from patentability as a business method as such and a program for a computer as such. Moreover I have inspected the application and can see no amendments which would overcome all of these issues. I therefore refuse the application.

Appeal

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

B MICKLEWRIGHT

Deputy Director, acting for the Comptroller