Intellectual Property Office

BL O/636/20

16 December 2020

PATENTS ACT 1977

APPLICANT	Gas Tag Ltd.
ISSUE	Whether patent application GB1505704.5 complies with Sections 1(2) and 76(2) of the Patents Act 1977
HEARING OFFICER	J Pullen

DECISION

Introduction

1 Patent application GB1505704.5 entitled 'System and method for monitoring maintenance of appliances' was filed on 2 April 2015 and published as GB2536948A on 5 October 2016.

2 The search report, dated 26 July 2016, reported under section 17(5)(b) that a search would serve no useful purpose. The examiner explained that, in his opinion, the claimed invention was excluded from patentability as a method of doing business as such in an accompanying examination opinion. An examination was requested, and an abbreviated examination report issued on 17 February 2020. The points made in the examination opinion were reiterated together with an offer of a hearing, highlighting that if the applicant responded but did not request a hearing then the application may, nonetheless, be passed for a decision on the papers on file. A response was received via the applicant's attorneys, Bartle Read, on 14 April 2020 containing amendments and arguments. The examiner remained unconvinced, and also identified added subject matter in the amendments. The applicant was contacted on 19 August 2020 to inform them of the intention to forward the case to a hearing on these matters. The case was then passed to me for a decision on the papers.

3 . The matters before me are whether the claimed invention is excluded as a method for doing business; and whether the amended claims filed on 14 April 2020 include added matter. I note that the examiner has not performed a search and has deferred completion of the examination. If I find the claimed invention allowable then it will be necessary for me to remit the application to the examiner to perform the search and complete examination.

4 I confirm that in reaching my decision I have considered all documents on file, particularly the amended claims and arguments filed in the letter of 14 April 2020.

The invention

5 The invention relates to a computer-based system and method for monitoring maintenance of multiple appliances at multiple premises. It is said to address a need relating to maintenance of gas burning appliances but is equally applicable to other appliances requiring maintenance such as white goods. The application aims to solve problems of "drive-by" safety checks (where an engineer drives to an address and completes a gas safety certificate indicating that checks have been carried out, but does not actually leave his/her vehicle, enter the premises or make the necessary checks) and where work is carried out in a manner which is unsatisfactory or unsafe. The term "maintenance" is used to cover installation of the appliance, inspection of the appliance, routine servicing, repair, as well as decommissioning of the appliance and its condemnation as being unusable on safety grounds.

6 The system uses machine readable tags recording a respective identifier mounted in physical association with respective appliances; a portable processing device with a tag reader, a user interface to receive maintenance data input by the maintenance operative and an interface for exchanging data with a remote server; and a remote server which stores maintenance data for the appliances and a user interface for providing the maintenance data to users such as landlords, tenants and contractors. The portable processing device may take the form of a mobile telephone (cellular phone) or other mobile processing device such as a tablet computer, which runs a dedicated app. The embodiments refer to electronic tags which operate according to the NFC (near field communication) standard but the claims do not include this feature and therefore cover other machine-readable tags recording a respective identifier such as barcodes.

7 The current claim set, as amended 14 April 2020, comprises two independent claims which relate to the same inventive concept. They will stand or fall together. The independent claims are:

> *1. A system for monitoring maintenance of multiple appliances at multiple premises, the system comprising*
>
> *machine readable tags for mounting in physical association with respective appliances, each tag recording a respective identifier;*
>
> *a portable processing device configured for use by an operative in recording maintenance data and having a reader for reading the identifier from the tag and an interface for exchanging data with a remote server and a positioning system for determining the location of the portable processing device;*
>
> *a remote server which stores maintenance data for the appliances; and*
>
> *a user interface for providing the maintenance data to users;*
>
> *wherein the portable processing device is configured to read the identifier from the tag, to record maintenance data input by the operative relating to the appliance identified by the identifier, and to transmit the maintenance data to the remote server for subsequent access by users, and*
>
> *wherein the remote server stores appliance records which are able to be referenced using the identifier and which include the location of the appliance, the remote server being configured to check whether, at the time that a given tag is read, the portable processing device is at the location of the appliance referenced using the identifier read from that tag.*

22. A method of monitoring maintenance of multiple appliances at multiple premises, the method comprising

providing the appliances with respective machine-readable tags, each tag recording a respective identifier;

reading the identifier of the tag of a specific appliance using a portable processing device carried by an operative;

establishment by the portable processing device of its own location using a positioning system;

recording of maintenance data relating to the specific appliance by the operative using the portable processing device;

transmitting the maintenance data to a remote server to create or amend on the remote server an appliance record relating to the specific appliance referenced by the identifier;

referencing appliance records, including the location of the appliance, stored on the remote server using the identifier read from the tag and checking whether, at the time of reading of the tag, the location of the portable device matches the recorded location of the appliance;

providing the maintenance data to users through a user interface.

The Law

8 I will first consider the issue of added matter. The relevant section of the Act is Section 76(2) which reads:

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

9 Guidance on section 76 can be found in *Bonzel and Schneider (Europe) AG v Intervention Ltd*[1], where Aldous J (as he then was) stated:

> *The decision as to whether there was an extension of disclosure must be made on a comparison of the two documents read through the eyes of a skilled addressee. The task of the Court is threefold:*
>
> *a) To ascertain through the eyes of the skilled addressee what is disclosed, both explicitly and implicitly in the application.*
>
> *b) To do the same in respect of the patent as granted.*
>
> *c) 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.*

10 In this case the second document/disclosure would be the patent as amended.

11 A further summary was provided in *Richardson-Vicks Inc's Patent*[2] where Jacob J (as he then was) stated:

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[1] Bonzel and Schneider (Europe) AG v Intervention Ltd [1991] RPC 553

[2] Richardson-Vicks Inc's Patent [1995] RPC 586

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

12 The examiner's main objection is that the invention is excluded from being patented as a method for doing business. The relevant section of the Act is Section 1(2), the most relevant provisions of which are shown below with my emphasis added:

> *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… method for... doing business,*** *or a program for a computer;*
> *(d) ...;*
> *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.*

13 The Court of Appeal has said that the issue of whether an invention relates to subject matter excluded by Section 1(2) must be decided by answering the question of whether the invention reveals a technical contribution to the state of the art. The Court of Appeal in *Aerotel/Macrossan*[3] set out the following four-step approach to help decide the issue:

> *(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.*

14 The operation of the approach is explained at paragraphs 40-48 of the judgment. Paragraph 43 confirms that identification of the contribution is an exercise in judgment involving the problem said to be solved, how the invention works and what its advantages are; essentially, what it is the inventor has really added to human knowledge, looking at substance, not form. Paragraph 47 adds that a contribution which consists solely of excluded matter will not count as a technical contribution.

15 In *Symbian*[4] the Court of Appeal reaffirmed the *Aerotel* approach while considering a question of "technical contribution" as it related to computer programs emphasising the need to look at the practical reality of what the program achieved, and to ask whether there was something more than just a "better program".

Assessment

Added subject matter

16 In his letter of 19 August 2020 the examiner highlights that amended claim 1 requires that "…*the remote server being configured to check whether, at the time that a given tag is read, the portable processing device is at the location of the appliance referenced using the identifier read from that tag*" (emphasis added). The examiner states that there is no explicit or implicit disclosure in the application as filed that the

[3] Aerotel Ltd v Telco Holdings Ltd & Ors Rev 1 [2007] RPC 7
[4] Symbian Ltd's Application [2009] RPC 1

remote server is configured to perform such a check and that therefore this adds matter.

17 The applicant's letter of 14 April 2020 states that the basis for this amendment was in published claim 3 although they note that the wording has been revised to require that the check should actually be made (as opposed merely to stipulating that it was possible to make it) and assert that this change is clearly supported by the description without detailing where it is disclosed. The applicant has not responded to the added matter objection made in the examiner's letter of 19 August 2020.

18 The application as originally filed discloses, in claim 3, that *"…the remote server stores appliance records which are able to be referenced using the identifier and which include the location of the appliance, so that a check is able to be made to determine whether the portable processing device is at the stored location when the tag is read"* (emphasis added). Throughout the description as filed there are numerous examples of data in the remote server being accessed by users to check the location of the portable processing device when a tag is read (see page 8, lines 8-10; page 9, lines 12-17; and page 10, lines 2-3). However, I have not been able to identify any passages that disclose that such a check is performed by the remote server and whilst it may be obvious to do so it is by no means implicit. I find that the identified passage of claim 1 therefore adds matter and will need to be removed or rephrased.

Excluded matter

(1) Properly construe the claim

19 The applicant proposes that construing the claims poses no difficulty. The examiner notes that, although not explicitly stated in the claims, the location information of the portable processing device must be transmitted to the remote server by the portable processing device. He concludes that there are no other difficulties construing either of the independent claims although he has disregarded the feature of the remote server being configured to check whether, at the time that a given tag is read, the portable processing device is at the location of the appliance which is added matter. I agree with the examiner's assessment.

(2) Identify the actual contribution

20 Identifying the alleged contribution is more contentious. The applicant and examiner agree that individually the elements of the claims are known; that it is conventional to read NFC tags using portable processing devices such as mobile phones, that mobile phones have GPS based positioning systems, that it is known to attach NFC tags to items to store information about the item and that mobile phones communicate with remote servers.

21 Although no search has been performed the examiner makes reference to two patent documents that he was aware of as part of his analysis; US 2013/0299569 A1 and US 2013/0198056 A1. The applicant proposes that the present claims provide a contribution over the system described in US 2013/0299569 as there is no reference to the portable scanning device having a positioning system, nor to the way the position determined therewith is used. The applicant acknowledges that US

2013/0198056 does suggest use of a GPS-based positioning system to determine whether to obtain NFC transaction history data from a device in conjunction with an NFC transaction with the device. However, they believe that this disclosure does not address the problem of "drive-by" safety checks and that this is a practical problem, not a mere administrative issue. They propose that the problem is solved by use of a combination of technologies – the tagging of the appliance to be serviced, the exploitation of a positioning system such as GPS, the communications architecture set out in the independent claims through which the required data is exchanged, and the operation of the remote server to carry out the check set out in the concluding lines of claim 1 from which it can be established both that the appropriate tag was read, and that the engineer was at the relevant location when this was carried out.

22 In his letter of 19 August 2020, the examiner addresses these points noting that the operation of the remote server to carry out the check is added matter and therefore is not part of the contribution. Regarding the document US 2013/0299569, he highlights paragraphs 0035 and 0066 which state:

> *"The scanning device used in the present invention could also employ a GPS tagging method to enable the device to mark, using a GPS tag, the location of any service, repair, installation, or other activity related to an individual product".*
>
> *"At the time the association between the unique identifier and the unique record is made, additional information can be added... Additional information that could be added to the unique record can include... GPS information".*

23 Regarding US 2013/0198056, he highlights paragraph 0062 which states:

> *"the devices may be configured to determine the geographic locations of the devices (e.g., the GPS coordinates of the devices) and to report the [geographical] locations of the devices to a server device external of the customer premises. Application facility... may be configured to determine, from data stored by the server device, the exact physical locations of the devices at the time of the NFC transaction and verify that the devices are located at the same physical location (e.g., the same GPS coordinates and/or the same customer premises)".*

24 The examiner concludes that the documents demonstrate that many of the features in the claims are known although they accept that the documents do not necessarily form part of the common general knowledge. Both documents disclose systems for monitoring maintenance of multiple appliances at multiple premises using portable devices communicating with a server and appear to address the problem of "drive-by" safety checks (even if that term isn't mentioned).

25 Regarding the problem of "drive-by" visits the examiner proposes that this is an engineer not doing what they are employed to do. They also say that any real-world safety implications are a consequence of the engineer not doing what they are employed to do and any improvements in safety offered by the system is a consequence of ensuring that the engineer does what they are supposed to do. I would add that even if this problem is addressed it does not, of itself, improve safety. An engineer minded to falsely complete a gas safety certificate indicating that checks have been carried out when they haven't can still do so. The system provides proof that someone with the portable device was in the premises when the data was entered; nothing more. Furthermore, the claims are not drawn to gas appliances and/or gas safety so cover a range of appliances with a range of safety implications some of which would be negligible.

26 There does not appear to be a contribution over US 2013/0299569 and US 2013/0198056; prima facie the claims lack novelty and/or inventive step in view of these documents but these matters are not before me. Setting that aside, it is clear that there is not a new arrangement of hardware; the contribution lies in how that hardware is used.

27 The examiner sets out their view of the alleged contribution as:

> *Monitoring maintenance of multiple appliances at multiple premises, by:*
>
> *mounting machine-readable tags in association with each appliance;*
>
> *configuring a portable processing device to read the tags, record maintenance data input by an operative, determine its location using a positioning system, and transmit the maintenance data, identifier information and location information to the remote server;*
>
> *storing appliance records on the remote server including the location of the appliance; and*
>
> *using the information sent by the device and stored on the remote server to determine whether, at the time that a given tag is read, the portable processing device is at the location of the appliance.*

28 I agree with the examiner and will proceed on that basis.

(3) Ask whether it falls solely within the excluded subject matter and (4) Check whether the actual or alleged contribution is actually technical in nature

29 I will consider steps (3) and (4) together.

30 The examiner proposed, in the examination opinion of 26 July 2016, that the alleged contribution of claim 1 relates solely to a business method as such and is therefore excluded from patentability. He asserts that the contribution relates only to the administrative steps of using conventional technology to store maintenance data and the problem identified in the application is an administrative problem. From that he concludes that, whilst it may be a better method of administrating maintenance, it is still a business method. The examiner also notes that any implication that a better appliance results as an effect of the system is merely a potential improvement in the administration of non-technical data relating to maintenance as there is no direct technical effect on improving the functioning of the appliance. They also mention that as the proposed invention is embodied as a computer program, the contribution may also fall within the excluded subject matter as a computer program which is non-technical in nature as it facilitates only a method of doing business.

31 In their letter of 14 April 2020, the applicant submits that the contribution does not fall solely within the excluded subject matter. In relation to the suggestion that the claims relate to a computer program they disagree, saying that merely because a computer program can be used in a business method does not necessarily imply that the computer program itself does not meet the requirements for patentability, and that both in wording and in substance the claims are not limited to a computer program as such, and nor is the contribution made by the present invention so limited.

32 Turning to business methods they say the alleged contribution provides a solution to a significant practical problem, which has real world safety implications and that it solves this problem by exploiting several different pieces of technology in a manner

which is not taught by, nor rendered obvious by, any of the available prior art (whilst acknowledging that that statement goes somewhat outside the section 1(2) analysis). They conclude that the invention constitutes a new combination of technical features put together in a manner that solves a practical problem.

33 In response the examiner says, in their letter of 19 August 2020, that whilst there may be a significant practical problem, it is not a technical one but is instead drawn to a business problem. They accept that the invention solves the problem by exploiting several different pieces of technology, but it does so by employing those technologies in a conventional manner to record data which can be used to monitor maintenance activities. This they say is not technical and falls solely within excluded subject matter as a method of doing business.

34 The applicant's arguments are not persuasive. The system of this application does not, of itself, improve safety. It provides a record that someone was in premises near an appliance when maintenance data was entered into a portable processing device. However, it does not follow that the maintenance has been performed at all, that it was performed by the person tasked with performing it or that it was performed correctly. Users can check that someone was in the premises when data was recorded. This amounts to an administrative method for verifying the whereabouts of the device to mitigate a problem associated with someone not doing what they have been employed to do. It provides this record using a known arrangement of hardware. I find that the claims relate to a business method as such. To the extent that computer programs would be used to configure some elements of the system they would be computer programs as such.

Conclusion

35 I have based my decision on all the information available on file. I find that claim 1, as amended, adds matter contrary to Section 76(2) of the Act and the application is excluded from being patented under Section 1(2) as a method for doing business as such. I therefore refuse the application under Section 18(3).

Appeal

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

J PULLEN

Deputy Director, acting for the Comptroller