



## PATENTS ACT 1977

APPLICANT Michael Oluwaseun Bamidele

ISSUE Whether patent application GB1810357.2 complies with sections 1(1)(b) and 14(5)(d) of the Patents Act 1977

HEARING OFFICER Phil Thorpe

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### DECISION

#### Introduction

- 1 Patent application no GB1810357.2 entitled “Hybrid Vehicle Sat Navigation” was filed on 25<sup>th</sup> June 2018. It was subsequently published as GB 2575034 A on 1<sup>st</sup> January 2020.
- 2 Amendments were filed on the 31<sup>st</sup> December 2018 to correct a minor typographical issue. Other than that, no amendments have been filed despite the examiner raising a number of objections. A letter making a number of observations was filed by the applicant, Mr Michael Bamidele, on 9<sup>th</sup> March 2022. Mr Bamidele has however been unable to satisfy the examiner that the application satisfies the requirement of the Patents Act 1977 (the Act). In particular, the examiner considers that the application lacks an inventive step under Section 1(1)(b) of the Act, that the claims do not relate to a single invention or inventive concept under Section 14(5)(d) of the act, and the claims are not clear under Section 14(5)(b) of the Act (though detailed consideration of the latter aspect was deferred). The examiner also stated that the application provides insufficient detail but did not make a formal insufficiency objection under Section 14(3) of the Act.
- 3 Mr Bamidele wrote to the Office on 16<sup>th</sup> August 2022 to request a decision on the papers on file.

#### The invention

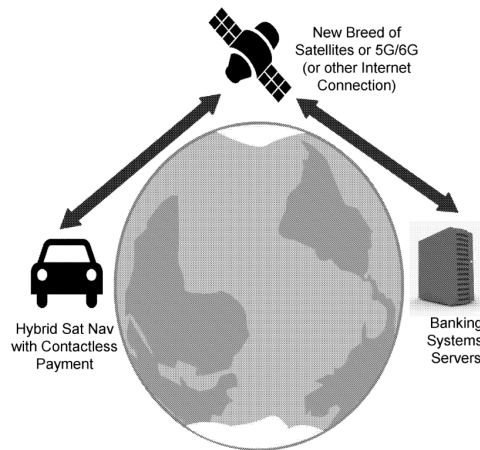
- 4 The invention relates to the use of an in-car satellite navigation system as the contactless terminal to make payments with contactless credit or debit cards. The in-car card-reader system can communicate externally wirelessly via Bluetooth™ or 5G/5G. A Bluetooth™ transceiver can be used for example to communicate wirelessly with the payment processing devices at filing stations to facilitate in-car wireless payment for the fuel bought. A contactless payment transceiver enables the system to process payments wirelessly from inside the vehicle adopting the satellite

navigation screen as the contactless terminal for receiving wireless payment instructions from a debit card or credit card. The 5G/6G transceiver facilitates the wireless internet connection for the hybrid satellite navigation system to provide in-car shopping web pages on the satellite navigation screen. These it is suggested will work seamlessly with the contactless payment processing functionality of the hybrid satellite navigation system.

- 5 The description, which extends to just two pages, refers also to communicating with a “new breed of satellites” noting that

These enable the sat nav system to process contactless payments by acting as a bridge between the in-car contactless payment terminal and the banking systems' servers. These satellites will be designed with this functionality in mind. This functionality will enable the in-car contactless processing of payments particularly while the vehicle is in motion.

**Hybrid Sat Nav System with Integrated Contactless Payment Processing: High Level Diagram**



- 6 The description also refers to a “contactless payment transceiver”. This is described as enabling:

...the hybrid sat nav to process payments wirelessly from inside the vehicle; adopting the sat nav screen as the contactless terminal for receiving wireless payment instructions from a debit card or credit card. It also works seamlessly with the new breed of satellites that will orbit the planet and bridge the gap between the contactless terminal (integrated into the sat nav screen) and the banking systems' servers. The transceiver will achieve this functionality regardless of whether the vehicle is stationary or in motion.

- 7 The final part of the description explains how payment is made when the vehicle is stationary or in motion. In the former, payment is said to be made

through the 5G/6G (or other internet connection) transceiver or the contactless payment transceiver.

whilst when the vehicle is in motion

the contactless payment processing is facilitated through the contactless payment transceiver.

8 The claims are those as filed on 31<sup>st</sup> December 2018. They include two independent claims which the examiner maintains relate to different inventions.

9 Claim 1 reads:

A method for processing contactless payments from contactless credit cards and contactless debit cards adopting the sat nav screen in the vehicle as a wireless contactless terminal and routing such payment instructions through a 5G/6G/other internet connections and/or a new breed of satellites orbiting the planet; enabling contactless payment processing while the vehicle is in motion or when stationary.

10 Claim 2 reads:

A hybrid satellite navigation system consisting of a Bluetooth transceiver, 5G/6G (or other internet connection) transceiver and contactless payment transceiver; the hybrid satellite navigation system working with a new breed of satellites designed to facilitate wireless payment processing via banking systems servers.

### **The law**

11 Section 1(1)(b) of the Act reads:

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

...

*(b) it involves an inventive step;*

12 In relation to inventive step, section 3 of the Act states:

*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).*

13 Section 2(2) of the Act states:

*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.*

14 Finally, sections 14(3) and 14(5)(b) and 14(5)(d) of the Act read:

*14(3) The specification of an application shall disclose the invention in a manner which is clear enough and complete enough for the invention to be performed by a person skilled in the art.*

*14(5) The claim or claims shall—*

...

*(b) be clear and concise;*

...

*(d) relate to one invention or to a group of inventions which are so linked as to form a single inventive concept.*

## Clarity and claim construction

- 15 I will look first at whether the claims are clear and concise as required by section 14(5)(b). I would note first that Mr Bamidele has not used a patent professional to draft his application but has rather done it himself. That is perfectly allowable however when an applicant is unrepresented the clarity of the application and claims is not always as clear as it could have been. That is the case here. Claim 1 is directed to a method of processing contactless payments from a vehicle when it is stationary or moving using the screen providing navigational information as the contactless payment terminal. Payment instructions can then be communicated through a 5G or 6G wireless network or through a “new breed of satellites”.
- 16 The reference to “a new breed of satellites” is not at all clear. There is nothing in the short description to indicate what is new about the satellites for example whether the satellites are new in any technical way, or whether it is just that in processing payment information emanating from a vehicle that may be moving, a conventional satellite is being asked to do something new. I will take the reference to “new breed” to be a reference to the alleged new use of conventional satellites. It is also noted that 5G and 6G communications can be via satellites.
- 17 Claim 1 also refers to “adopting the sat nav screen in the vehicle as a wireless contactless terminal”. Although again the description is silent on how this is done, I am satisfied that this phrase means that the screen in the vehicle that displays navigational information can also be used to make contactless payments using a credit or debit card or the like. The claim as a whole therefore relates to a method of processing contactless payments made within a stationary or moving car that uses the navigation screen in the vehicle to read a payment card and then uses either 5G, 6G or a satellite link to connect to a payment processing server.
- 18 Claim 2 is directed to the system itself. Despite being couched in different wording to that of claim 1 I am satisfied that it does in effect relate to the same inventive concept as claim 1. The reference to the contact payment transceiver, when read in light of the description, brings in the requirement that it is the navigational screen that is used to read the card. Hence claim 2 relates to apparatus suitable for enabling the method of claim 1 to be performed. The only additional feature of claim 2 is that the apparatus has Bluetooth™ capability – this not clearly being a requirement of the method of claim 1.

## Plurality of invention

- 19 Given how I have construed the claims, I am satisfied that they do relate to a single inventive concept.

## Inventive Step

- 20 The courts have formulated a four-step approach to assessing obviousness in *Windsurfing*<sup>1</sup> and *Pozzoli*<sup>2</sup>. These steps are:

*(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?*

21 Mr Bamidele has not identified the notional “*person skilled in the art*”. In the examination report dated 16<sup>th</sup> December 2022, the examiner suggested that the “*person skilled in the art*” is a vehicle interior designer or team of designers able to add systems into vehicle dashboards and infotainment systems, and would be familiar with such systems as GPS, communications, mapping, radio and other infotainment uses and applications, and their software implementation and application. The examiner further suggested that the skilled person would have a working knowledge of smart technology and online applications. I am content to accept this characterisation of the skilled person.

22 Step (2) requires identifying the inventive concept of the claim in question or construing it which I have already done.

*(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;*

23 The examiner in their pre-hearing report relies on KR 1020090108997 A and KR 1020090107668 A. Both documents were published prior to the filing date of the application in issue here.

24 KR’997 and KR’668 both relate to integrated meter devices for use in taxis, each having a navigation screen (and as such incorporating satellite navigation systems) and having a billing terminal (including a card reader) in the same device. There is also a reference in each of these documents to the use of a CDMA or WCDMA wireless network, a HSDPA wireless network or an IEEE 802.1xx wireless internet to communicate with a server including sending payment instructions. CDMA, WCDMA and HSDPA are 2G and 3G networks.

25 Both documents note that the card reader (identified as item 145 in both documents) may accept a magnetic stripe, a “contact IC card” or a “contactless IC card”.

26 The differences between KR’997 and KR’668 are immaterial for present purposes. The differences between either of these and the invention claimed in claim 1 is that communication to the server does not clearly use satellites, nor does it use a 5G or 6G network. A further difference between either KR’997 or KR’668 and the invention of claim 1 is that, although card reader 145 is stated to be “provided in the integrated taxi meter device”, it is not stated as provided in the **screen** of the device.

27 Similar differences exist between the disclosure in these documents and the requirements of claim 2 with the addition that claim 2 also requires that the system has the further option of Bluetooth™ connectivity.

*(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?*

28 Both KR'997 and KR'668 were published in 2009. At that time CDMA and HSDPA were relatively contemporary communication technologies whilst technologies such as 5G had yet to be introduced. The skilled person reading either of these documents at the time that the invention in issue here was made would readily appreciate that more modern technologies could be used instead of those set out in these documents. Indeed, the skilled person would seek to use whichever communication technologies are contemporary at the time of design, especially since conventional mobile communications have long been used with conventional handheld payment terminals. As such, the skilled person would consider it obvious to use 5G or the like to communicate payment instructions.

29 It is also considered that the skilled person would consider it obvious to use a satellite network for communications. In that respect I note that the description provides no details as to how the in-car device communicates by satellite. This lack of detail might suggest that it would be readily apparent to the skilled person how this could be done – if so then there is no inventive step in this aspect of the claim.

30 A similar argument arises in respect of using the screen that displays navigational information to also read the payment card details. Again, there is no disclosure in the application as to how this is done.

31 As noted Mr Bamidele has not really engaged in any detail with the examiner during the examination of this application. He has at one point provided a list of what he considers to be the differences between his invention and the cited prior art. Those differences do not always read on from what it is he has actually claimed. He has also provided some general observations on inventive step though these did not really explain why any of these differences would not have been obvious to the skilled person.

32 As I have noted the description provides no real technical information on these differences. It is a requirement of section 14(3) that the specification ie the description and claims, of the application disclose the invention in a manner which is clear enough and complete enough for the invention to be performed by a person skilled in the art. Mr Bamidele does note in his observations under the title "Sufficiency Objections" that:

"The components of the disclosed invention are well known in the public domain. None of the components construe an undue burden to implement as one skilled in the art can acquire the necessary know how in the public domain.

The patent application sufficiently describes the invention in the drawings, description and claims so as to enable one skilled in the art to make the invention."

- 33 This reinforces my view that there is no inventive step in the differences between the prior art and the invention claimed in claim 1. In particular, if as Mr Bamidele claims the individual components are well known, for example a screen-based device able to provide navigational information and also read the details of a payment card, then it would be obvious to incorporate them in the arrangement shown in either KR'997 and KR'668. Obviously there can be invention in combining or using known components in a novel way however there is nothing before me to indicate that this is what the invention here is. Again, if it was, there is simply insufficient disclosure in the specification.
- 34 I am satisfied that the invention in claim 1 as I have construed it is obvious in light of the disclosures in either KR'997 and KR'668.
- 35 The invention of claim 2 differs in substance in being to the apparatus itself which also has Bluetooth™ capability. I can see nothing inventive in that noting that Bluetooth™ connectivity was well known at the time including in in-vehicle communication devices. The invention of claim 2 is therefore considered obvious in light of either KR'997 and KR'668.

#### Obviousness of the dependent claims

- 36 Claims 3 and 4 relate to using the apparatus of claim 2 to pay for fuel or to provide in-car shopping. I can see nothing inventive in these particular applications of the technology of claim 2. Similarly, there is nothing inventive in facilitating payment processing with banking systems' servers (claim 6), as this is precisely what conventional payment systems do.
- 37 Claim 7 requires that the system wirelessly issues an electronic payment receipt to the user, while claim 8 specifies the use of 5G, 6G "or other Internet connection" to issue such a receipt and claim 9 specifies the use of a Bluetooth™ transceiver for issuing the receipt. Both prior art documents refer to issuing printed receipts. It was clearly common practice at the time of the invention for online payment systems to issue receipts to the customer, and it has also been known for some years to issue receipts to customers electronically. Hence, I can see nothing in claims 7, 8 and 9 that provide an inventive step.
- 38 Claims 10 and 11 relate respectively to taking payment when the vehicle is stationary or in motion. Mr Bamidele in his limited observations notes that neither of the prior art documents disclose a system that operates in both dynamic and static modes which I take to mean when the vehicle is both stationary and moving. It is not clear to me, especially from reading the application in issue, why achieving this is particularly difficult given the capabilities of 5G and 6G and satellite-based systems. Indeed, with such communication capabilities the systems described in the prior art would be able to operate even when the vehicle is moving. Claims 10 and 11 are therefore obvious.

#### **Sufficiency**

- 39 I have already touched on the requirement under section 14(3) that the specification should disclose the invention in a manner which is clear enough and complete enough for the invention to be performed by a person skilled in the art. If I am wrong

on my assessment of inventive step, and I do not believe I am, then the application will most certainly fail due to insufficiency. For example, if incorporating a payment option into the screen that also presents navigational information is inventive or that the referred to “new breed of satellites” are indeed technically new, then there is no express disclosure of any technical details relating to these aspects of the invention in the specification. Neither is there sufficient disclosure of any of the other aspects of the invention that Mr Bamidele suggests may be inventive. Such insufficient disclosure is fatal to an application as it is not possible to add any further information to the specification.

### **Conclusion**

- 40 I have concluded that the inventions claimed in claims 1 and 2 do share a single inventive concept however I have also concluded that the invention as claimed in any of claims 1-11 of application GB1810357.2 does not involve an inventive step.
- 41 Mr Bamidele has not put forward any possible amendments and after carefully considering the contents of the application as a whole, I can identify no saving amendment.
- 42 I therefore refuse the application under section 18(3) of the Act.

### **Appeal**

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

**Phil Thorpe**

Deputy Director, acting for the Comptroller