



PATENTS ACT 1977

APPLICANT	Predrag Paunovic & Nenad Paunovic
ISSUE	Whether GB1613028.8 complies with section 1(2) and section 14(3)
HEARING OFFICER	Ben Micklewright

DECISION

Introduction

- 1 Patent application GB1613028.8, filed in the names of Predrag and Nenad Paunovic and entitled 'Traffic, communication and coordination system for digital medium of exchange', was filed on 28 July 2016 and was later published on 4 April 2018.
- 2 A letter was issued on 14 December 2017 informing the applicants that no search had been performed on the application and enclosing an abbreviated examination report in which the examiner argued that the application was excluded from patentability under section 1(2) of the Patents Act 1977 ("the Act") as a method of doing business. Furthermore, the examiner argued that the disclosure of the application would not enable a person skilled in the art to perform the invention such that the requirements for sufficiency under section 14(3) of the Act were not met.
- 3 A response was received from Nenad Paunovic on 12 March 2018 arguing that the application was patentable, after which a further examination report was issued by the examiner on 12 April 2019 in which the examiner maintained his objections and offered the applicants the opportunity to present their case to a hearing officer.
- 4 A further response was received from Nedad Paunovic on 12 January 2021, after which the examiner issued a pre-hearing report on 20 January 2021 in which they argued that the invention also relates to a program for a computer as such. The application is now before me for a decision on the papers as to whether the application satisfies the requirements of sections 1(2) and section 14(3) of the Act. I confirm that I have considered all the arguments put forward by the applicant in reaching my conclusion.

The invention

- 5 The application is notionally directed towards a 'Traffic, communication and coordination system for digital medium of exchange' and relates to an invention which was set out in an earlier application by the same applicants, GB1412429.1.
- 6 It is helpful to initially consider this earlier application, which relates to a 'system for conversion of energy quantity into digital medium of exchange'. GB1412429.1 was filed on 12 July 2014, published on 3 February 2016 and subsequently expired on 10 February 2021 on account of reaching the compliance date without being in order for grant. As with the present application, GB1412429.1 is exceedingly light on detail and not particularly clear in scope but considering both that application as filed and its associated correspondence, notably the applicant's letter of 19 February 2020, the concept of the application can be determined. GB1412429.1 discloses a system where energy, preferably electrical energy, is received from an energy generating device and measured, after which a form of currency, preferably a cryptocurrency, is generated in proportion to the amount of energy measured. This currency can then be sent, for example over the world wide web, and utilised, while the energy can also then be transferred to its final destination. The intention would appear to be to create a currency which is directly derived from and proportional to the value of the energy created.
- 7 The present application acknowledges GB1412429.1 and states that the earlier application did not explain how a number of the systems disclosed in the earlier application could be interconnected and coordinated. The present application discloses that a number of the systems set out in GB1412429.1 may each be connected to a device. These devices can then exchange data, either through the devices being directly connected to one another or via e.g. the world wide web. A network can be created by interconnecting a number of the devices of the present application, the associated systems of GB1412429.1, energy generators and, presumably, energy users.
- 8 Each device shares data relating to the energy that has been measured and the currency that has subsequently been created with other devices so that each device becomes a database containing information relating to the entire network. The intention is that this exchange of data will make it difficult to misuse or destroy data. It would appear that information relating to the loss or gains in energy stored within the network is also exchanged, although I am not entirely sure where in the described network the energy is intended to be stored. While it is not absolutely clear from the application itself, it would appear from the correspondence relating to GB1412429.1 that the intention is that once energy has been utilised the associated currency is also removed from the system.

The claims

- 9 The application contains a single claim which states:

1. A traffic, communication and coordination system for digital medium of exchange for accepting, processing, verifying, unencrypting, tracking, displaying and coordinating data with other traffic, communication and coordination system for digital medium of exchange received from corresponding systems for conversion of measured energy quantity into digital medium of exchange within common data exchange network.

The Law

10 Section 1(2) of the Act states:

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

–

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

(b) A literary, a 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 provisions shall prevent anything being treated as an invention for the purposes of the Act only to the extent that a patent or application for a patent relates to that thing as such.

11 The provisions of section 1(2) were considered by the Court of Appeal in *Aerotel*¹ when the four-step test was laid down to decide whether a claimed invention is excluded from patent protection:

(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.

12 It was stated by Jacob LJ in *Aerotel* that the test is a re-formulation of, and is consistent with, the previous ‘technical effect approach with rider’ test established in previous UK case law. Kitchen LJ noted in *HTC v Apple*² that the *Aerotel* test is followed in order to address whether the invention makes a technical contribution to the art, with the rider that novel or inventive purely excluded matter does not count as a ‘technical contribution’.

13 Section 14(3) of the Patents Act 1977 states:

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.

¹ *Aerotel Ltd V Telco Holdings Ltd and Macrossan’s Application* [2006] EWCA Civ 1371

² *HTC Europe Co Ltd v Apple Inc* [2013] EWCA Civ 451

Analysis

Excluded Matter

- 14 In their report of 20 January 2021, the examiner argued that the invention as defined by claim 1 relates to a method of doing business and a computer program as such and was therefore excluded from patentability under section 1(2). To assess the issue of patentability I must consider each of the *Aerotel* steps in turn.

(1) properly construe the claim

- 15 The examiner argued that the exact scope of the claim was difficult to construe on account of the description being brief and the terminology used not being well defined. The examiner construed the claim as relating to 'a system for coordinating, verifying, unencrypting and tracking of data of a medium of exchange based on produced energy'.
- 16 While I agree with the examiner that the scope of the claim is not straightforward to construe, I think that it can be determined in light of the disclosure in the application. I have arrived at a slightly different interpretation to that of the examiner. The claim is directed towards 'A traffic, communication and coordination system for digital medium of exchange' which from the description appears to be a device. This device is capable of 'accepting, processing, verifying, unencrypting, tracking, displaying and coordinating data' from similar devices, with this data being received from corresponding 'systems for conversion of measured energy quantity into digital medium of exchange', which I take to be the invention set out in the earlier application GB1412429.1. This exchange of data takes place within a common data exchange network.
- 17 I therefore construe the claim to be directed towards:

'A device for accepting, processing, verifying, unencrypting, tracking, displaying and coordinating data with other similar devices, the data being derived from systems which generate currency in proportion to the amount of energy which they measure, said exchange of data taking place across a common data exchange network.'

- 18 I would, in particular, note the references in the claim to 'verifying', 'tracking' and 'coordinating' data, which I consider do allude to the concept more widely discussed within the application that the interaction of devices across the network acts, as a whole, to manage, regulate or at least track the currency and/or energy within the network.

(2) Identify the actual contribution

- 19 For the second step of the test I must identify the actual contribution, effectively what the application has added to human knowledge. I must again note that the concept of a system for generating currency in proportion to the amount of energy which the system measures must be considered known, as it was disclosed in the applicants' earlier application GB1412429.1, which was published at a point prior to this

application being filed. I therefore view the contribution of the claimed invention in this current application to be a device which enables data, derived from systems that generate currency in proportion to the energy they measure, to be exchanged with and utilised by other similar devices within a network to enable the currency/energy within the network to be tracked and managed.

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

- 20 In their letter of 12 January 2021, the applicants argue that the application describes a technical process which can be realised in a number of different technical ways and is therefore patentable. The examiner, in their report of 20 January 2021, argued that this was not the case, highlighting the comments of Judge Birss in *Halliburton Energy Services Inc*³ which make clear that simply implementing a method in a technical fashion, such as through the use of computers, does not in itself necessarily give rise to a technical effect. On this point I agree with the examiner. The invention does not act to provide, for example, a more efficient network or a quicker transfer of data. The only notional advantages of this invention all appear to be business advantages, i.e. the notional ability to track, account for and verify currency and energy within the network, rather than advantages of a technical nature.
- 21 As was noted by the examiner, the exclusion of methods of business must be interpreted as encompassing not only complete business concepts but also such tools, procedural steps and activities which might be performed so as to facilitate business, administrative, organisational or managerial activities. The contribution of this application appears to me to fall squarely within the realm of such activities and I cannot see any technical contribution which extends beyond those activities, such that I find the invention relates to a business method as such.
- 22 With regard to whether or not the claimed invention also relates to a computer program as such, I note the applicant's arguments in their letter of 12 January 2021 that this need not be the case as the invention can be worked in a number of different ways, potentially through the use of software but also potentially through the use of mechanical systems instead. If the invention were to be worked through the use of software then, as noted above, there does not appear to be any technical effect or contribution above and beyond the normal workings of a computer-based system such that it would constitute a computer program as such. If the invention is to be worked in some other fashion, perhaps through a purely mechanical system, then, for lack of any new and inventive apparatus, there is still no technical effect beyond those which fall within the business method exclusion.

Sufficiency

- 23 I will also consider the issue of sufficiency. The single claim does not contain any meaningful technical detail, but rather sets out the intended purpose or results of the invention. I will therefore consider the disclosure of the application as a whole as well

³ *Halliburton Energy Services Inc* [2011] EWHC 2508 (Pat)

as the scope of the claim and decide whether the specification can provide the basis for an allowable set of claims.

- 24 The issue of sufficiency was raised in both the abbreviated examination report of 14 December 2017 and the substantive examination report of 12 April 2019 as well as the final report of 20 January 2021. At least partly in response to these objections the applicants, in their responses on 12 March 2018 and 12 January 2021, argued that the invention described in the application can be put into practice through mechanical or electrical means and that, while it may not be straightforward, good engineers should be able to make the system work based on the explanations within the patent without a large amount of effort.
- 25 The application sets out, at the highest of levels, what the network is intended to do in terms of exchanging data between the various components of the network, but I do not believe that there is any meaningful disclosure relating to the apparatus which might enable the network to operate in the desired fashion nor any disclosure of *how* the data might be exchanged.
- 26 For the application to be sufficient it must contain a disclosure which is clear enough and complete enough for a person skilled in the art to work the invention without undue burden and without them having to perform any inventive act. With regard to the scope of the claim, there is simply no disclosure as to how the device might work – to all intents and purpose we are just presented with a magic box which performs the desired tasks. This lack of guidance is such that I cannot see how the skilled person might work the claimed invention without prolonged research, enquiry or experimentation, such that the claim cannot be considered sufficient.
- 27 When considering the scope of the application more widely, the broader concept is for a network comprising a number of the claimed devices interconnected with one another and with a number of the systems set out in GB1412429.1 as well as with other components such as energy generating devices. To some degree I must therefore also consider the disclosure of GB1412429.1.
- 28 Were the disclosure of this earlier application such that all that was required to work the invention of the present application was to simply connect a number of the systems disclosed in the earlier document together in a straightforward manner then there might be some scope for the present invention to be viewed sufficient, albeit, in all likelihood, obvious. However, GB1412429.1 is similarly lacking in any meaningful technical disclosure about how the systems for generating currency in response to the energy they measure might actually operate, such that any attempt to work the wider invention set out in the present application cannot be viewed as a straightforward matter.
- 29 To work the invention set out in the wider application, it would therefore be necessary for the entire network, including both the hardware and/or software involved, to be designed from the ground up. I do not believe that there is any disclosure in the application to aid the person skilled in the art in this task beyond an outline of the desired results of how the network should operate. Such an undertaking must be viewed as requiring the sort of prolonged research and, I suspect, invention which the courts have held are indicative of a lack of sufficiency.

The application as a whole therefore fails to meet the requirements of section 14(3) of the Act.

Conclusion

- 30 I find that the contribution made by the claimed invention lies wholly in the excluded field of a method of doing business as such, and, where implemented through software, of a program for a computer as such. The application does not therefore satisfy the requirements of sections 1(1)(d) and 1(2)(c) of the Act. Furthermore, I find that the disclosure of the application fails to disclose the invention to a degree which satisfies the requirements of section 14(3). I therefore refuse the application.

Appeal

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

Ben Micklewright

Deputy Director, acting for the Comptroller