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PATENTS ACT 1977

APPLICANT Michael Oluwaseun Bamidele

ISSUE Whether GB1408602.9 complies with Section 1(1)(b)

HEARING OFFICER Dr S Brown

DECISION

Introduction

1. Patent Application GB1408602.9 was filed on 14th May 2014 in the name of Michael Oluwaseun Bamidele. It was published on 9th September 2015 as GB 2523852.

2. After several rounds of correspondence, the applicant and the examiner were unable to agree whether the application makes the required inventive step or not. In his examination reports of 10 February and 25 February 2021, the examiner suggested that the applicant request a hearing. On receipt of these reports, the applicant stated that he wished to proceed with a decision based on the papers on file. He subsequently filed a written response on 1 March 2021 but did not file new amendments to the claims.

The Application

4. The patent application relates to using a sample of a person's DNA to authenticate his/her identity and applying this authentication method to several internet security applications. The first internet security application is limiting access to the internet to persons authenticated in this way. The second application is publishing identity information for a person on websites which they visit, which the applicant believes would discourage illegal activity on the internet. The third internet security application is using the authentication method as part of a domain name registration process.

5. The most recent claims were filed on 15 January 2021. There is one independent claim, claim 1, it reads as follows:

1) A method for

(a) facilitating a DNA authenticated profile or DNA enabled digital passport for accessing the internet,
(b) facilitating a DNA enabled user roaming profile for each user of the internet, such DNA enabled roaming profile being tagged to user profile data, also being publicly available on each website visited and trailing the user's journey across multiple websites and
(c) DNA based registration of domains on the internet

The Law

6. Section 1(1) of the Act sets out what is required of a patentable invention as follows:

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;
…
and references in this Act to a patentable invention shall be construed accordingly.

7. Section 2 of the Act sets out what 'new' means as follows:

2(1) An invention shall be taken to be new if it does not form part of the state of the art.

2(2) 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;

2(3) The state of the Art in the case on an invention to which an application for a patent or a patent relates shall be taken also to comprise matter contained in an application for another patent which was published on or after the priority date of that invention, if the following conditions are satisfied, that is to say:-
(a) That matter was contained in the application for that other patent both as filed and as published; and
(b) The priority date of that matter is earlier than that of the invention.

8. 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).

9. In addition to statute, the courts have long used the so-called *Windsurfing* test to assess issues of inventive step. This test was reformulated by the Court of Appeal in *Pozzoli*[1]. Paragraph 23 of this decision lays out the test as:

(1) (a) Identify the notional "person skilled in the art"
(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?

Collocation

10. The law regarding collocation is set out in the decision in *SABAF*[2]. Briefly, this decision held that if a claim comprises two, or more, integers one must consider if they interact upon each other. If there is synergy between them, then they constitute a single invention and one considers the combined integers under section 3 of the Act. However, if each integer performs its own function independently of any of the others then each is considered a distinct invention for the purposes of section 3 and assessed separately.

11. SABAF explained that two features are considered to interact synergistically if their functions are interrelated and lead to an additional effect that goes beyond the sum of the effects of each feature taken in isolation. It is not enough that the features solve the same technical problem or that their effects are of the same kind and add up to an increased but otherwise unchanged effect. Specifically, in the second half of paragraph 24, Lord Hoffmann held:

but before you can apply section 3 and ask whether the invention involves an inventive step, you first have to decide what the invention is. In particular, you have to decide whether you are dealing with one invention or two or more inventions. Two inventions do not become one invention because they are included in the same hardware. A compact motor car may contain many inventions, each operating independently of each other but all designed to contribute to the overall goal of having a compact car. That does not make the car a single invention.

12. In paragraph 26 he added:

The EPO guidelines say that "the invention claimed must normally be considered as a whole". But equally, one must not try to consider as a whole what are in fact two

[1] Pozzoli Spa v BDMO SA & Anor [2007] EWCA Civ 588
[2] SABAF SpA v MFI Furniture Centres Ltd [2004] UKHL 45

separate inventions. What the Guidelines do is to state the principle upon which you decide whether you are dealing with a single invention or not. If the two integers interact upon each other, if there is synergy between them, they constitute a single invention having a combined effect and one applies section 3 to the idea of combining them. If each integer "performs its own proper function independently of any of the others", then each is for the purposes of section 3 a separate invention and it has to be applied to each one separately. That, in my opinion, is what Laddie J meant by the law of collocation.

Claim Construction

13. Before applying *Pozzoli* and *Sabaf*, I will begin by construing the claims, beginning with claim 1. Given the structure of this claim, coupled with the brevity of the description, this is not a straight-forward task.

14. Firstly, claim 1 has three separate parts: part (a), part (b) and part (c). The first question is whether these parts are intended to operate in isolation from each other, as alternatives, or whether the three parts are intended to be taken all together. Given that the word “and” appears immediately before part (c), I believe that the applicant intended that claim 1 is to be taken as the combination of all three parts, rather than any one of parts (a), (b), or (c).

15. Next there is the question whether the terms “DNA authenticated profile” and “DNA enabled digital passport” are alternative expressions for a single feature or refer to different features. Neither term is a recognised term in the art. Additionally, the term “DNA authenticated profile” does not appear in the description. In the absence of any indication to the contrary, I will construe the words of these terms to have their normal meanings. Doing this in the wider context of the application as a whole I believe that “DNA authenticated profile” is merely an alternative term for “DNA enabled digital passport” and that both refer to sampling a user’s DNA to reliably identify them when using the internet. I will thus construe part (a) of claim 1 as:

    Authenticating the identity of a user using a sample of the user’s DNA and permitting such an authenticated user access to the internet.

16. Moving on to part (b), I am sure that the person skilled in the art would readily understand that “user profile data” relates to personal information about a user, such as that listed in claim 11 of the application.

17. The term “roaming profile” generally refers to a file synchronisation mechanism that allows a user to have a consistent user experience (e.g. desktop view and file availability) whilst roaming across different computers. This is usually achieved by storing a “roaming profile” on a central server[3]. As there is no requirement for the user to roam between different computers in this application, I can only assume that the applicant must have intended “roaming profile” to have a different meaning in the current application.

[3] https://en.wikipedia.org/wiki/Roaming_user_profile

18. While the description does not clearly define the term ‘roaming profile’, its third paragraph states “*All online users where required can access a section of every website to view the roaming profiles that are currently visiting the website, i.e. the DNA authenticated identity of each internet user*”. In the light of this passage, I will construe the term “DNA enabled user roaming profile” to relate to personal information for a user whose identity has been authenticated using a DNA sample.

19. From claim 1 it is unclear whether it is the ‘roaming profile’ or the ‘user profile data’ which is publicly available. However, from the passage of the description discussed above, I believe that claim 1 requires that a user’s personal information is made publicly available. Furthermore, “tagged” seems to merely require that the user profile data is associated with the roaming profile/user identity information in some way.

20. The term “for each user of the internet” is also not clear in scope. It seems implausible that the current invention could be applied worldwide, without exception. I will thus interpret this term as “for a plurality of internet users”. Similarly, I shall interpret “on each website visited” as requiring that authenticated user identity information is made available on any website accessed using the claimed identity information. From the description, it seems to me that making a user’s personal information publicly available on each website visited is a key theme of the invention.

21. I will thus construe part (b) of claim 1 as:

> *Associating personal information with each of a plurality of DNA authenticated users, this personal information being publicly available on each website visited by such a user, and thus being suitable for tracking which websites a user has visited.*

22. Part (c), at least, is straightforward. I construe this part of claim 1 as:

> *Authenticating the identity of a user using a sample of their DNA and allowing such an authenticated user to register an internet domain name.*

Collocation

23. As explained above, I believe that the applicant intended for the three parts of claim 1 to be taken all together. However, such an intent is not necessarily enough. Following *SABAF*[2] I must ask whether there is any synergy between the various parts.

24. There is a clear overlap between parts (a) an (b). Both require a user to be authenticated using a sample of their DNA and obviously a user can only visit websites if they are permitted to access the internet. In short, part (b) falls almost

entirely within the scope of part (a). I will thus take parts (a) + (b) to be one inventive concept.

25. While part (a) could stand alone of part (b), here I will take the applicant's intent into account and not slice the claim any thinner than necessary.

26. Similarly, there is overlap between parts (a) and (c). Again, both require DNA based authentication and, most likely, access to the internet. I will thus take parts (a) + (c) to be a second inventive concept.

27. The next question is: 'is there any synergy between these two concepts?'. Unfortunately, I cannot see any. I can see no interaction between making the DNA authenticated personal information of visitors publicly available on websites and using DNA authentication to register domain names.

28. The only overlap is the use of DNA to authenticate a user and that is known as disclosed in the prior art, US 2007/061590 (BOYE), cited by the examiner. This document discloses a system for authenticating a user's identity before allowing access to a service provider's services. In an initial registration and enrolment stage the user provides biometric specimens 314 which are analysed to produced biometric data 318 for storage in a server (see paragraphs 51-54). The biometric specimens may be DNA samples (paragraph 57). In an authentication stage the user provides biometric samples 306 which are compared to the stored biometric data 318. A match authenticates the identity of the user. In this case the user is provided with a response code 102 which can be used to gain access to services provided by the server provider (see paragraphs 85 to 87). Paragraph 63 provides examples of service providers 50, which includes "internet and email providers".

29. Thus BOYE demonstrates that part (a) of claim 1 is known and on this basis, I conclude that claim 1 relates to two separate inventive concepts, as identified above. I will assess each in turn.

Applying the Pozzoli test

30. The first step of the Pozzoli test is to determine who the relevant skilled person is and to consider their common general knowledge. This step is straightforward in this case. I consider that the skilled person is a designer of internet security systems. They can be expected to have a good knowledge of various authentication protocols, what they may be used for, and the features of a variety of popular web sites.

31. This skilled person would be very familiar with the concept of logging on to a user account with a user identifier such as a username and authenticating the user with a password. They would also be aware that some web sites, such as social

media web sites like FACEBOOK(RTM) , provide an indication of "friends" who are "active" (i.e. currently online) or the time which has elapsed since a friend was last active. These web sites also typically enable users' profiles to be displayed. For example, a Google Account[4] can be used to visit a number of different Google(RTM) web-sites such as Google+(RTM) (a social media web site), YouTube(RTM) and Google Search. It is also well known that Google Accounts can also be used to visit some third party web-sites, and a user-profile can be associated with a Google Account. Google Account user information is displayed on some web-sites such as Google+ and YouTube, at least when a user publishes a post. Google famously tracks the websites users visit to provide targeted advertising. I consider that this was all within the skilled person's common general knowledge at the filing date of the current application.

32. The skilled person would also be familiar with several different types of biometric authentication. The use of DNA as a means of biometric authentication would have been within the skilled person's common general knowledge.

33. The second step of the Pozzoli test requires that I identify the inventive concepts(s) of the claim. I have already done this above. For ease of reference I will repeat them here. The first inventive concept I have identified is:

> *Associating personal information with each of a plurality of DNA authenticated users, this personal information being publicly available on each website visited by such a user and being suitable for tracking which websites a user has visited.*

The second inventive concept is:

> *Authenticating the identity of a user using a sample of their DNA and allowing such an authenticated user to register an internet domain name.*

34. The third step of the Pozzoli test is to identify what the difference is between the inventive concept and the state of the art. As discussed above, BOYE discloses that it is known to use DNA authentication to access various internet services. What it does not explicitly describe is using DNA authenticated IDs to track website use or to register domain names.

35. In the last step of the test I must decide whether these differences would be obvious to the skilled person. In *Windsurfing International Inc v Tabur Marine*[5] the court of appeal held "what has to be determined is whether what is now claimed as inventive would have been obvious, not whether it would have appeared commercially worthwhile to exploit it".

36. This approach, of assessing inventive step on the basis of technical rather than commercial considerations, was also followed in *Petra Fischer's Application*[6].

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[4] http://web.archive.org/web/20140511004641/https://en.wikipedia.org/wiki/Google_Account
[5] Windsurfing International Inc. v Tabur Marine (Great Britain) Ltd, [1985] RPC 49
[6] Petra Fischer's Application [1997] RPC 899

Here it was held that a diesel cabriolet was obvious even though there may be a commercial prejudice against the idea. Thus, while it strikes me that there could be significant commercial and other non-technical factors pointing away from widely publishing user identity information on websites, I will set aside such non-technical considerations when making my decision.

37. As explained above, on the filing date of this application it was known to use DNA based authentication to access various internet services. It was common general knowledge that some websites made public the identity of users currently using that site, these identities having been authenticated in more traditional ways, e.g. by using a password. It was also common general knowledge to track such user identities across multiple websites. I believe it would have been obvious to the skilled, but uninventive, person to use DNA authenticated user identities in exactly the same way as identities authenticated by other means.

38. The difference concerning making user identity information publicly available on *each* web site visited is more difficult to assess. I can imagine that at least some of the websites a user would visit would be of the type which would make user identity information freely available. However, other websites such as those related to banking, would presumably prefer to keep user identity information hidden. However, this difference is dependent on the business choices of a given website – i.e. is the business based on 'sharing information' (e.g. Facebook) or on keeping it secure (e.g. banking). As such I consider this to be a commercial difference and following *Petra Fischer's Application*[6] I will set it aside. Put another way, I believe that the skilled person would consider it obvious that DNA authenticated user identities could be made publicly available on each website visited by a user, with any bias against doing so being purely commercial.

39. This conclusion is reinforced if I consider the decision of the EPO Technical Board of Appeal T119/82 (Gelation). Here the board took the view that a variation from published matter which has no advantages, or is even disadvantageous, should be considered obvious if the variation is one whose possibility a skilled person would readily appreciate.

40. I thus conclude that the first inventive concept is obvious in light of the disclosure in BOYE combined with common general knowledge. I will now turn to the second inventive concept, identified above.

41. This analysis is considerably more straightforward. The examiner previously cited CN 103036680 (COMPUTER NETWORK). This document discloses a domain name registration server which performs biometric authentication of users before registering domain names to them. CN 103036680 considers several different types of biometric authentication but does not explicitly refer to DNA authentication. However, I believe the skilled person, in the light of their common general knowledge in the art, would readily appreciate the possibility of using DNA authentication as the biometric authentication means of CN 103036680. I

therefore conclude that the second inventive concept lacks an inventive step over CN 103036680.

Other claims

42. I will now briefly consider the dependent claims to see if any of them contain the necessary inventive step.

43. Claim 2 specifies that the authentication process verifies a collected sample of the DNA against a global DNA database. In contrast BOYE discloses storing its biometric data on a server. This however is simply a matter of scale. I can see no inventive step in the geographic scope of the database. The technical details are unchanged.

44. Likewise, claim 3 merely specifies that the invention facilitates the creation of a digital online passport for *every* user on the internet. Again, I can see no technical detail in this level of ambition and thus no inventive step.

45. Similarly, the remaining dependent claims either relate to the global ambition of the application or, when construed, add nothing not already implicit in the two inventive concepts identified above. I thus conclude that these claims also do not provide an inventive step.

Decision

46. I have found that the invention set out in the independent claim is a collocation of two separate integers. I have further found that both integers lack inventive steps. Finally, I can see nothing that might comprise an inventive step in any of the dependent claims.

47. Accordingly, I decide that the invention as set out in the claims lacks an inventive step as required by section 1(1)(b). I therefore refuse this application under section 18(3).

Appeal

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

STEPHEN BROWN

Deputy Director, acting for the Comptroller