

- 5 The un-extended compliance date for the application passed on 1 December 2019.
- 6 I confirm that I have taken account of all the correspondence and documentation on file in reaching my decision.

The invention

- 7 The application relates to an apparatus or system for educational and leisure purposes. It concerns constructing groups of anagrams, from each of which a vowel has been removed, and where those vowels are collected to be presented as a selection of vowels used to reform the correct words from the subsequent anagrams. The system is aimed at ensuring only one complete set of correct anagrams can be reformed from the collection of anagrams and missing vowels.
- 8 The application discusses a *vowel selection system* and a *vowel cancelling out system/mechanism*. The *vowel selection system* provides a tool to track which letters, specifically vowels, can be removed from a word, and which words might be created if any other vowel was used to replace the removed vowel. The *vowel cancelling out system/mechanism* provides a tool to track which letters are removed and which letters, if used, would form the wrong anagram solution. Each of these systems is embodied as a table to present a visual picture of the words and anagrams which may be presented, produced and solved. The application also discusses situations where these systems could be used, such as with written texts or game scenarios.
- 9 The original claims were filed after the filing date and have subsequently been amended five times. The latest form of the claims was received on 3 September 2019 and comprises an independent claim 1 with eight dependent claims. Claim 1 reads as follows:

This invention relates to a vowel substitution elimination system, a single vowel can now be removed from a word (*The vowel that formed the word*) and the vowel substitution elimination system will ensure the removed vowel will be the only vowel that will be able to be returned, thereby forming the exact anagram that produced the word that had its single vowel removed, fig 6: fig 6A.

Matters to decide

- 10 The issue to be decided is outlined in the pre-hearing report of 17 September 2019, the examiner objected to the application falling within the exclusions of Section 1(2)(c) and 1(2)(d) of the Patents Act. The examiner notes there are issues with the clarity of the claims, he indicates these have no bearing on the patentability of the application and as such I will consider them no further.
- 11 I should note that in his response to the examiner's pre-hearing report, Mr Anderson has reiterated how his invention works and can be applied. Mr Anderson has highlighted what he believes to be a novel technical feature and emphasises the invention could be used with published material, enabling interaction between an

individual and the material, and his view that this has an educational benefit. Mr Anderson does not challenge the relevance of the law or how the examiner has applied it, but does state his view that his invention is not a method or system of designing puzzles.

The Law

- 12 The examiner raised an objection under Section 1(2) of the Act, that the invention is not patentable because it relates to one or more categories of excluded matter. The relevant provisions of this section of the Act are shown with added emphasis below:

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) a discovery, scientific theory or mathematical method;

b) a literary, 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 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 These provisions are designated in Section 130(7) as being so framed as to have, as nearly as practicable, the same effect as Article 52 of the European Patent Convention, to which they correspond. I must therefore also have regard to the decisions of the European Patent Office Boards of Appeal that have been issued under this Article in deciding whether the present invention is patentable although I am not bound to follow them.

- 14 These provisions have been the subject of regular consideration by the UK courts. The assessment of patentability under section 1(2) is governed by the judgment of the Court of Appeal in *Aerotel*¹, as further interpreted by its judgment in *Symbian*². In *Aerotel*, the court reviewed the case law on the interpretation of Section 1(2) and approved a four-step test for the assessment of “excluded matter”. Those steps are:

i. properly construe the claim;

ii. identify the actual or alleged contribution;

iii. ask whether the identified contribution falls solely within the excluded subject matter;

¹ *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371, [2007] RPC 7

² *Symbian Ltd's Application* [2008] EWCA Civ 1066, [2009] RPC 1

iv. check whether the actual or alleged contribution is actually technical in nature.

Application of the *Aerotel* approach

(i) Properly construe the claim

- 15 I note Mr Anderson's last letter raises concern that the examiner has misconstrued fundamentals of the invention. Because of this, it is important I set out how I am construing the main claim of the application.
- 16 The main claim of the application attempts to define a vowel substitution elimination system. As the examiner notes in the pre-hearing report, the claims are clearer than those which were originally filed³, but there are still issues with the clarity and certainty of their scope.
- 17 The current claim 1 is defined by the result of what must happen when the invention is performed – this is often described as an invention defined by its result. Such claims can present some problems in being sure when an activity falls within the scope of the protection sought. Here, the claim requires that “a single vowel can now be removed from a word” and will ensure “the removed vowel will be the only vowel that will be able to be returned, thereby forming the exact anagram that produced the word that had its single vowel removed.” On the face of it, the claim essentially requires a word with a vowel, and working the invention will result in an anagram where the anagram is formed from the original word with the vowel which was removed. The claim also requires that “the removed vowel will be the only vowel that will be able to be returned” but does not define how this is achieved. So, I must turn to the description to understand what the applicant intended for this to mean and to understand how the skilled addressee will interpret this when they read it.
- 18 The claim's reference to removal of a single vowel from a word appears to clearly correspond with the *vowel selection system* described on page 2 and embodied by the table of figure 6. The vowel selection system is clearly an iterative process of choosing words, removing vowels, replacing vowels with other vowels, and compiling a list of potential words which could be formed.
- 19 The claim's requirement that “the removed vowel will be the only vowel that will be able to be returned, thereby forming the exact anagram that produced the word that had its single vowel removed” appears to correlate wholly with the *vowel cancelling out system/mechanism* described from page 3 onward and embodied by the tables of figure 6A. The vowel cancelling out system can use the results of the vowel selection system as a verification step to verify which vowel combinations could be re-presented to then make sure only all the intended anagrams can be formed.
- 20 But it appears to me there are problems of certainty of the scope.
- 21 Firstly, although the claim requires “the removed vowel will be the only vowel that will be able to be returned” (*my emphasis added*), it is clear from the application as a whole that this is intended to mean the removed vowel will be added to a set of

³ The claims were filed after the filing date i.e. not with the original application.

solution vowels (*my terminology*) from which it will be the only vowel that will be able to be returned.

- 22 But there is a further problem meaning this definition is insufficient. Figure 6A demonstrates the invention's vowel cancelling out system is not merely ensuring a vowel returned to an anagram of a word is the only vowel that can be returned, it is also verifying all other anagrams can also be resolved. That is, figure 6A provides the example where E is intended to be returned to form an anagram of FORCE, but it can also be returned to two other anagrams so they would be able to form VALET and GROPE, which are not intended to be available when all is resolved. So it is clear to me the claim is intended to mean the vowel returned is the only vowel able to be returned while also allowing all the anagrams to be resolvable in the manner intended (ie thereby forming the exact anagrams that produced the words).
- 23 This highlights a further aspect missing from the claim. The claim is directed as "a single vowel can now be removed from a word" (*my emphasis added*). I have considered whether the system could work with a single word but I have to conclude this is not reasonable. While it could be that a vowel could be removed to form a set of just one solution vowel, this has the natural result that there can be only one anagram which then needs no verification step. This cannot be the intention of the claim. Put simply, I do not believe the applicant intends for the system to be used for single words and I can find no true support for this in the specification as originally filed.
- 24 It is on this basis that I arrive at my conclusion of how the claim must be construed:

A system of forming anagrams comprising:

- (i) choosing a potential word, removing a solution vowel from the word to form an incomplete anagram, replacing the vowel with another vowel so the anagram can form another word, and iterating vowel removal and replacement in order to compile a complete list of potential words along with their corresponding incomplete anagrams and vowels;
- (ii) choosing another word and repeating step (i);
- (iii) comparing the lists of potential words, anagrams and vowels in order to verify which anagrams and vowels can be presented in a combination such that when they are re-presented they will only allow all the intended anagrams to be formed.

- 25 The other claims of the application each require the system of the main claim and build upon it by exemplifying how it may be used or presented.

(ii) Identify the actual or alleged contribution

- 26 Jacob LJ outlined the considerations to be applied when identifying the contribution in paragraph 43 of *Aerotel*:

"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.”

27 This is a system to help form a set of incomplete anagrams which are linked by a set of solution vowels. There are steps of user choice which are followed by a verification step where the user compares sets of words formed from possible anagrams.

28 In his pre-hearing report the examiner identified the contribution as:

“...a system or method of designing/devising an anagram puzzle which comprises selecting words, removing a vowel from each word, and presenting the remaining letters as anagrams for use in a puzzle in which each anagram must have the correct missing vowel reinserted in order to re-form the correct, initially selected words. The contribution also extends to a graphical representation of this system/method in which the selected words, anagrams (with removed vowel) and removed vowels are presented in tabular form.”

29 As no search has been performed of the prior art, I must consider the alleged contribution; however in this instance, I do not think this matters. As noted by the examiner choosing words for anagrams is clearly conventional and the applicant has drawn attention to his own prior patent application, published as GB2349344, in which respect the present application apparently seeks to build on.

30 At this stage I should note that during the examination procedure Mr Anderson supplied a selection of prototypes related to this application (received on 14 January 2019). I have reviewed the prototypes which include the previously referred to model with pages of text and further examples of anagrams alongside a set of solution vowels. Each of these appears to be an example of a product which the invention might help to produce. Although they assist in demonstrating the application of Mr. Andersons invention I do not need to consider them further in reaching my decision.

31 Mr. Anderson has provided no reasoned argument or suggestion of an alternative contribution beyond disagreeing with the examiner’s view and stating his invention’s purpose (considered further below).

32 I am in general agreement with the examiner and in the absence of any contra view, I consider the contribution to be in the provision of a routine to identify and formulate incomplete anagrams alongside the solution vowels which complete those anagrams. Further when considering the dependent claims, the contribution extends to include the representation of the results in text, via various media, and in computer form.

(iii) Does the contribution fall solely within the excluded matter

33 I have considered Mr Anderson’s statement in his latest letter dated 21 September 2019 (received on 1 October 2019) that the “invention is not ... a method or system of designing puzzles”. Mr Anderson continues by stating the “purpose is to control

and direct a single vowel, so that a specific ANAGRAM is formed". Throughout the proceedings of the application the examiner has maintained his objection that this application relates to a method of playing a game. The examiner has referred to anagrams as anagram puzzles, and this tends to put the inference of the application as a game. I find myself wondering whether the conflict that arises is caused by the intention of the term anagram. I suppose the question is whether an anagram is implicitly a puzzle or not? And then whether a puzzle is implicitly a game. I am confident to immediately answer the latter of these: yes, a puzzle is a game. But the former requires at least some exploration. I have reviewed a number of dictionary definitions for "anagram", most merely defining the term along the lines of rearranging the order of the letters of a word or phrase, but some inferring an element of game. I have asked myself why someone be looking to form an anagram? I have wondered if it would be reasonable to think of them as encryption but this would stretch the construction of the term in this context. I can think of no reasons which are not puzzles.

- 34 In my opinion Mr. Anderson has presented no argument that causes me to disagree with the stance of the examiner, and that the contribution relates to the identification and formulation of anagrams. Whatever the purpose of an anagram, for example whether it is as part of a leisure game or an education puzzle, it can only be described as a puzzle or game. Although the invention is not what one may immediately think of as "the rules" of a game, it does certainly concern rules or method for formulating how the 'game' will be set up. This was surely intended to be included by the legislators within their definition of "scheme, rule or method for playing a game". The contribution here falls squarely within any reasonable interpretation of that, as such. That the results may be presented as information within a literary work, or on a computer device, does not help to move the invention outside the realms of exclusion.

(iv) Is the contribution actually technical in nature?

- 35 The final question is intended to work in synergy with the third, and can act to safeguard clearly technical inventions. In his last submission, Mr Anderson states his view the invention contains "a novel technical feature" and then proceeds to reiterate the invention as controlling which vowels can be returned to an anagram. I cannot see how the feature which Mr Anderson describes is technical. In the pre-hearing report the examiner draws attention to influential case law which helps us understand what we may consider to be technical: an invention may be viewed as a solution to a concrete technical problem⁴. In contrast, the feature highlighted by the applicant relates solely to selection and aiding in control of presentation of vowels for the purposes of anagrams. I fully concur with the examiner's conclusion that the invention is not concerned with any technical problem as expected by the law, and the invention is concerned solely with devising "better" or "more interesting" anagram puzzles.

Decision

- 36 I find that the invention claimed in GB1509528.4 to fall solely within matter excluded under Section 1(2) as a scheme or rules for playing a game as such and

⁴ Paragraph 11, Shopalotto.com Ltd's Application [2006] RPC 7)

presentation of information as such. I can find no amendment in the specification that will render the claims patentable. I therefore refuse the application under Section 18(3).

Appeal

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

Peter Mason

Deputy Director, acting for the Comptroller