Intellectual Property Office

BL O/565/16

28 November 2016

PATENTS ACT 1977

APPLICANT	Gary Roald Ohlson
ISSUE	Whether patent application number GB1422545.2 complies with Section 1(2)(c)
HEARING OFFICER	Phil Thorpe

DECISION

1. This decision concerns whether the invention set out in patent application GB1422545.2 relates to excluded matter. The examiner has maintained throughout the examination of the application that the claimed invention is excluded from patentability under section 1(2)(c) of the Patents Act 1977 as a program for a computer and a method of doing business. The applicant has not been able to overcome the objections, despite amendments to the application.

2. The matter came before me at a telephone conference hearing on 26th September 2016. The applicant was supported by an advisor, Ms Manisha Rawat.

The Patent Application

3. The application is entitled "A gaming method and associated apparatus" and was filed on the 18th December 2014 in the name of Gary Roald Ohlson. The application was published on 9th September 2015 as GB 2523879 A.

4. The application relates to a gaming method and computerised apparatus associated with gaming based wagering activities. More specifically the gaming method relates to an event, such as a golf tournament or horse racing, having a number of participants (players or horses), wherein the event determines a finishing order for at least some of the participants. The method determines the return for wagers placed prior to the event on each participant that finishes within a predefined number (n) of the top finishes with the return for each finisher diminishing the further down the field they finish. The method of the invention can be seen in the flowchart of figure 1 of the application reproduced below. In one embodiment the method of figure 1 is applied to a golfing tournament having 100 participants. The value n is chosen as 10 such that wagers placed on anyone finishing in the top 10 will receive a payout or dividend. The value of an individual payout will depend on the total amount waged, the number of people placing wagers and size of

wagers placed on those finishing in the top 10 and the operator's profit or costs that are subtracted from the total amount waged (see step S7)

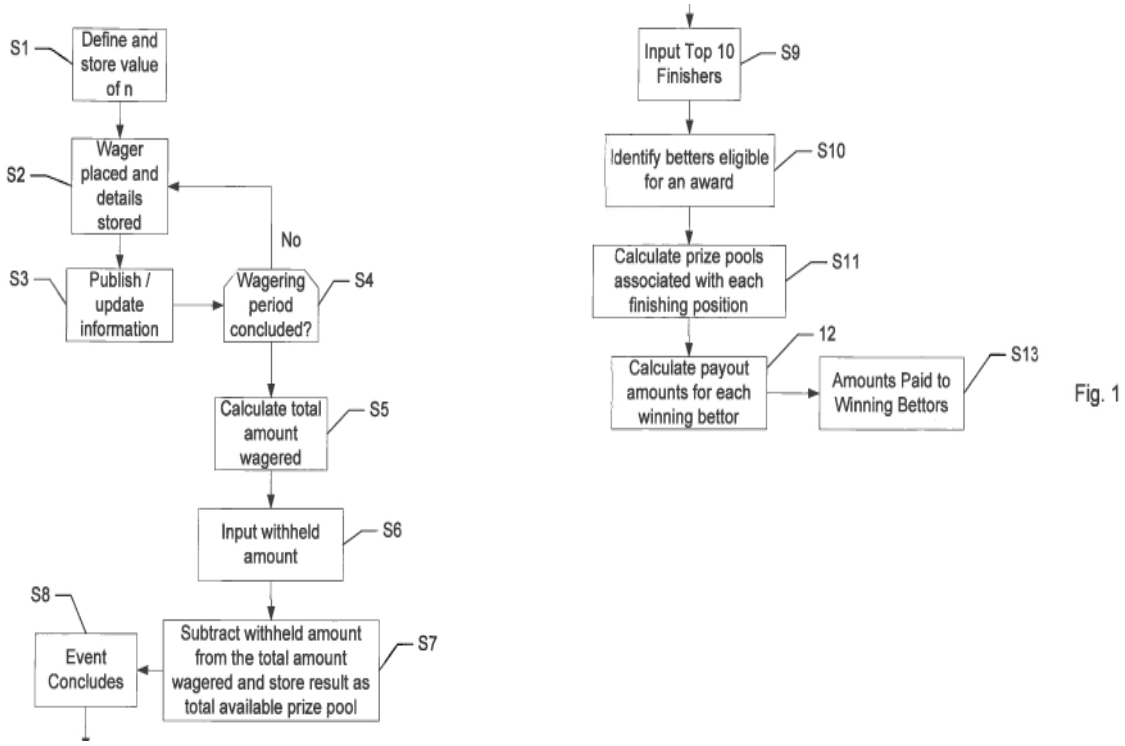

Fig. 1

5. The algorithm used to calculate the payout P in respect of the person finishing in position p is as follows:

$$P_p = P_n \times F_p \text{ where } F_p = n+1 - p.$$

6. Applying this algorithm to the golfing event referred to above where the total amount waged is $5 million results in the following total diminishing payout pools for each of the top 10 finishers:

Finishing Position (p)	Factor F_p	Associated Prize/ Dividend Pool P_p
1	10	$818,181.81
2	9	$736,363.63
3	8	$654,545.45
4	7	$572,727.27
5	6	$490,909.09

6	5	$409,090.90
7	4	$327,272.72
8	3	$245,454.54
9	2	$163,636.36
10	1	$81,818.18

7. Each payout pool will then be apportioned between the number of people wagering on that finisher in proportion to the amount they waged.

8. An amended set of claims was filed on 27th November 2015, having two independent claims (1 and 15). These are considered to relate to the same invention and read as follows:

> 1. A gaming method and user interface relating to an event having a number of event participants, wherein the event determines a finishing order for at least some event participants, the method including:
>
> prior to the event, defining a constant integral number n that is less than the number of event participants and that is greater than, or equal to, two;
>
> prior to the event, accepting a plurality of wagers, each of the wagers being on at least one of the event participants; and
>
> subsequent to the event, being responsive to a top n of the finishing order so as to determine eligibility for a dividend for each wager made on an event participant that finished within the top n finishing positions;
>
> wherein an inverse relationship exists between each of the top n finishing positions and the dividend amount respectively associated with each of the top n finishing positions.
>
> 15. A computerised apparatus for implementing a gaming method relating to an event having a number of event participants, wherein the event determines a finishing order for at least some event participants, the computerised apparatus being programmed to:
>
> store a constant integral number n that is less than the number of event participants and that is greater than, or equal to, two;
>
> store a plurality of wagers, each of the wagers being on at least one of the event participants; and
>
> process a top n of the finishing order so as to determine eligibility for a dividend for each wager made on an event participant that finished within the top n finishing positions;
>
> wherein an inverse relationship exists between each of the top n finishing positions and a dividend amount respectively associated with each of the top n finishing positions.

The Law

9. The examiner has raised an objection under section 1(2) of the Patents Act 1977 that the invention is not patentable because it relates inter-alia to one or more categories of excluded matter. This is the only matter before me. The

relevant provisions of this section of the Act, with highlighting relevant to this case, are shown below:

> *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, 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 from 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.*

10. As explained in the notice published by the UK Intellectual Property Office on 8th December 2008[1], the starting point for determining whether an invention falls within the exclusions of section 1(2) is the judgment of the Court of Appeal in *Aerotel/Macrossan*[2].

11. The interpretation of section 1(2) has also been considered by the Court of Appeal in *Symbian*[3]. *Symbian* arose under the computer program exclusion, but as with its previous decision in *Aerotel/Macrossan*, the Court gave general guidance on section 1(2). Although the Court approached the question of excluded matter primarily on the basis of whether there was a technical contribution, it nevertheless (at paragraph 59) considered its conclusion in the light of the *Aerotel/Macrossan* approach. The Court was quite clear (see paragraphs 8-15) that the structured four-step approach to the question in *Aerotel/Macrossan* was never intended to be a new departure in domestic law; that it remained bound by its previous decisions, particularly *Merrill Lynch*[4] which rested on whether the contribution was technical; and that any differences in the two approaches should affect neither the applicable principles nor the outcome in any particular case.

12. Subject to the clarification provided by *Symbian*, it is therefore appropriate to proceed on the basis of the four-step approach explained at paragraphs 40-48 of *Aerotel/Macrossan* namely:

> *(1) Properly construe the claim.*
> *(2) Identify the actual contribution (although at the application stage this might have to be the alleged contribution).*
> *(3) Ask whether it falls solely within the excluded matter.*
> *(4) If the third step has not covered it, check whether the actual or alleged contribution is actually technical.*

Applying the Aerotel test

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[1] http://www.ipo.gov.uk/pro-types/pro-patent/p-law/p-pn/p-pn-computer.htm
[2] *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371; [2007] RPC 7
[3] *Symbian Ltd v Comptroller-General of Patents*, [2009] RPC 1
[4] *Merrill Lynch's Appn*. [1989] RPC 561

Step 1

13. The claims are generally clear. The scope of the term 'computerised apparatus' in claim 15 was briefly discussed and whilst it could include for example conventional desk top computer, laptop or mobile phone, the apparatus needed for the present invention would have to include architecture sufficient to provide adequate processing speed to be able to process and store vast amounts of data. Conventional mobile phones would in general be unsuitable for this application and this was confirmed by Mr Ohlson. Other than that no issues of construction arise.

Step 2

14. Guidance on how to identify the contribution is given in paragraph 43 of *Aerotel* where the court accepted the proposition that identifying the contribution is an exercise in judgment probably involving the problem said to be solved, how the invention works, what its advantages are. Determining what the inventor has really added to human knowledge perhaps best sums up the exercise.

15. The applicant characterises the problem solved by the invention as follows:

> *"…the focus of the invention is not merely to provide large distributed dividends to attract more wagers but the goal of the invention is to solve a strong technical problem i.e. inefficient, time consuming and conventional dividend calculation schemes in wagering activities."*

16. It goes on to contend that the contribution is:

> *"…a special and effective method for the calculation of 'graduating dividends' in a wagering activity unlike any other conventional 'fixed dividend' wagering systems…"*

17. As no search has yet been performed I am content at this stage to accept this as the contribution subject to the caveat that the method is clearly intended to implemented on a computer.

Steps 3 & 4

18. I will consider steps 3 and 4 together. The applicant's main contention is that the invention provides a technical solution to a technical problem. That problem according to the applicant is the inefficient calculation of dividend payouts in prior computer based systems. It argues that the way in which these are calculated is cumbersome, inefficient and slower than the method proposed in the application. The applicant has however not really substantiated this claim in either the application or in his submissions. Given the generally routine nature of the calculations necessary to calculate dividends it is difficult to accept that modern day computers cannot process the data efficiently. Nevertheless even if the applicant was able to demonstrate that this was indeed a problem, then the solution provided by the invention would still not provide the necessary technical solution to the

problem. The invention has not for example made the computer a better computer so that the prior art methods of calculating dividends or payouts can be done more quickly. Instead it has changed the underlying method for calculating dividends. The new method may indeed be a better method than the prior art methods and may allow dividends to be calculated more quickly but that is not enough because calculating dividends in a wagering system is not something that involves a technical contribution. Rather it is a method of doing business and as such is not patentable. That it may be a better method of calculating dividends does not matter. This was made clear in *Halliburton*[5] where Birss J. noted:

> The business method cases can be tricky to analyse by just asking whether the invention has a technical effect or makes a technical contribution. The reason is that computers are self evidently technical in nature. Thus when a business method is implemented on a computer, the patentee has a rich vein of arguments to deploy in seeking to contend that his invention gives rise to a technical effect or makes a technical contribution. For example the computer is said to be a faster, more efficient computerized book keeper than before and surely, says the patentee, that is a technical effect or technical advance. And so it is, in a way, but the law has resolutely sought to hold the line at excluding such things from patents.

19. Hence I am satisfied that the invention here is excluded as being a method of doing business. Though it is not strictly necessary I will go on to consider whether it is also excluded as a computer program as such.

20. I am in no doubt that at the heart of claims 1 and 15 is a computer program. That is not necessary fatal to the application. It is very well established that a program which provides a technical contribution is not excluded ie it is not a program for a computer *as such.* The judgment in *AT&T/CVON*[6] provided guidance in the form of a number of signposts which may indicate that a computer program provides a technical contribution. The signposts were updated in *HTC v Apple*[7] and are considered as follows:

> i) whether the claimed technical effect has a technical effect on a process which is carried on outside the computer;
> ii) whether the claimed technical effect operates at the level of the architecture of the computer; that is to say whether the effect is produced irrespective of the data being processed or the applications being run;
> iii) whether the claimed technical effect results in the computer being made to operate in a new way;
> iv) whether the program makes the computer a better computer in the sense of running more efficiently and effectively as a computer;
> v) whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.

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[5] *Halliburton Energy Services Inc's Applications* [2012] RPC 129
[6] AT&T Knowledge Ventures LP and Cvon Innovations Ltd v Comptroller General of patents [2009] EWHC 343 (Pat)
[7] HTC Europe Co Ltd v Apple Inc [2013] EWCA Civ 451

21. Whilst, as I have noted the invention may provide a more efficient way of calculating dividends, it does not provide any technical effect on a process outside of the computer.

22. The applicant contends that the algorithm used to calculate the graduating dividends is in effect something that alters the architecture of the computer to cause the computer to operate faster. I disagree. The computer at the architectural level is still operating in the same way even though it may be running a better program to calculate dividends. Similarly even though the method of calculating dividends may be quicker than previous methods, the computer itself is not operating in a new way nor is it in effect a better computer in the sense envisaged in AT&T. As the applicant notes there is inevitably an interaction between the computer and the program it is running but what matters is what that program is doing and how it affects the computer. In other words does it make it a better computer or cause it to operate in a new way? The program here which is based on the new algorithm does neither of these.

23. The final signpost looks at the problem that the invention seeks to solve and asks whether it is indeed solved or merely circumvented. Here the problem is claimed to be that existing computers are not able to process efficiently known methods for calculating dividends. The invention however does not solve the problem, ie it does not improve in a technical way the efficiency of the computer but rather circumvents the problem by telling the computer to do something different. Hence none of the signposts assist the applicant.

24. The applicant also seeks support for its position that the invention is not excluded as a computer program from the statement of Pumfrey J in paragraphs 9-11 of *Shoppalotto*[8]. It is not necessary to repeat in full those paragraphs though I would highlight the following where Pumfrey J considers the nature of any technical contribution:

> The real question is whether this is a *relevant* technical effect, or, more crudely, whether there is enough technical effect: is there a technical effect over and above that to be expected from the mere loading of a program into a computer? From this sort of consideration there has developed an approach that I consider to be well established on the authorities, which is to take the claimed programmed computer, and ask what it contributes to the art over and above the fact that it covers a programmed computer. If there is a contribution outside the list of excluded matter, then the invention is patentable, but if the only contribution to the art lies in excluded subject matter, it is not patentable.

25. The rationale set out by Pumfrey is entirely consistent with the approach that I have taken here and I can find nothing in these paragraphs nor the remainder of the decision that would help the applicant here. Indeed I would note that the invention under consideration by Pumfrey J in *Shoppalotto* was a computer configured to provide a lottery playable via the internet which he concluded was excluded from being patentable because inter alia it was for a method of doing business.

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[8] Shoppalotto.com Ltd's Application [2005] EWHC 2416 (Pat).

Decision

26. Having carefully considered all the arguments put forward by the applicant I am satisfied that the invention does not provide any technical contribution. Rather I have found that the contribution made by the invention defined by the claims falls solely in matter excluded from patentability by virtue of section 1(2)(c) of the Act, namely a program for a computer and a scheme, rule or method for doing business.

27. I can see nothing in the specification as a whole that could be reasonably expected to form the basis of a valid claim. I therefore refuse this application under section 18(3).

Appeal

28. Any appeal must be lodged within 28 days.

Phil Thorpe
Deputy Director acting for the Comptroller