

## **PATENTS ACT 1977**

### **IN THE MATTER OF**

Application No. GB 0008530.8  
in the name of The Sporting Exchange Ltd

### **DECISION**

#### **Introduction**

1. Patent application number GB 0008530.8 entitled “Betting Exchange System” was filed on 6 April 2000 in the name of The Sporting Exchange Ltd. The invention concerns an interactive, Internet based, betting system. The application was published on 9 May 2001 as GB 2356071.
2. The examiner objected in his examination report of 3 April 2001 that the claims relate to a method of doing business contrary to section 1(2)(c) of the Act. The applicant disagreed and in exchanges of correspondence between the examiner and the patent agent, a number of amended claims were filed and the prior decisions in *Merrill Lynch’s Application* [1989] RPC 561, *SOHEI/General-purpose management system* T769/92 and *PBS Partnership/Controlling pension benefits system* T 931/95, were discussed with a view to establishing whether the claimed invention involved a technical effect.
3. The further correspondence failed to persuade the examiner that the claims made a technical contribution, and the applicant duly requested a hearing to decide the matter. The hearing took place on 13 June 2002 with Mr Jan Walaski of Venner, Shipley & Co representing the applicant. Also present at the hearing were the inventor, Mr Andrew Black and Mr Edward Wray, Mr David Williams and the examiner Dr John Cullen. During the hearing, Mr Wray provided a demonstration of the system.

#### **The invention**

4. In conventional betting, the outcomes of sporting events are assigned odds by a bookmaker. Customers “back” a particular outcome by betting a stake that the outcome will occur. If it does occur, they win the stake multiplied by the odds, plus the original stake. If it does not occur they lose the stake. The system of the present application operates on the Internet and allows customers to bet with each other rather than with a bookmaker. Customers make offers or requests to bet on a particular event, stating the odds and the amount they wish to bet. Other customers accept the offers, accepting the proposed odds and either the whole or part of the amount. This arrangement necessitates different customers betting in favour of opposing outcomes, and to assist in this requirement the system is also arranged to provide customers with the opportunity to “lay” an outcome. In this case the customer bets a stake that an outcome will not occur. If it does not occur, the customer wins the stake. If it does

occur, he loses the stake multiplied by the odds. The system matches requests from some customers to back a given outcome, with offers from other customers to lay the same outcome and only accepts the requests when a match is found.

5. In a further refinement, the system can automatically generate “implied” bets if the bet requests placed by customers do not cover all events. For example, if customers have placed requests to back both teams in a football match, the system could calculate an implied bet for laying a draw between the two teams. Another customer could then accept this implied bet by backing the draw and his bet would balance the bet requests backing wins. The system also supports line betting and spread betting which allow customers more sophisticated ways of betting on scores of matches and on complex outcomes such as occur in grand prix motor races and horse racing. Finally, the system may include a feature which ensures that a customer placing a bet has sufficient funds in his account to meet any possible liability, by looking at the maximum exposure of the customer over all possible outcomes. In summary, the system thus provides an interactive, real-time betting system which requires no bookmaker, provides customers with a wide range of betting opportunities, operates automatically to match requests from different customers, provides implied bets and prevents customers exceeding their account balance.
6. Before the hearing, Mr Walaski filed a skeleton argument together with three independent claims, each based on a previously filed claim. He explained that these were the claims he wanted to concentrate on for the purposes of the hearing, and that he would like to reserve the possibility of including further dependent claims if any of these was allowed. The claims filed in the skeleton read as set out below. Briefly, claim 1 relates to the matching feature, claim 2 to calculating implied bets and claim 3 to the calculation of exposure.

1. A betting exchange system for permitting a plurality of users to bet against one another, the system comprising server means configured to receive bet offers and bet requests from the plurality of users over a communications network, each of said offers specifying a price at which the user originating the offer is prepared to lay a given outcome, together with a bet size offered at said price, the server means being arranged to aggregate said offers to provide a first set of information for display to said plurality of users, said first set of information including the best price at which each of the possible outcomes can be backed at a given time and the aggregated size available at said best price, and each of said requests specifying a price at which the user originating the request is prepared to back a given outcome, together with a bet size requested at said price, said server means being operable to match said bet offers with said bet requests based on said specified prices and sizes; and in the event that the server means cannot match said requests at the prices and sizes specified, the server means being further arranged to aggregate said bet requests to provide a second set of information for display to said plurality of users, said second set of information including the best price at which each of the possible outcomes can be laid at a given time and the aggregated size available at said best price and the server means being operable to update the first and second sets of

information for display to said users in response to received bet offers and bet requests, such that said users can in real-time see the best price at which they can back or lay any outcome and the total size available at that price.

2. A betting exchange system comprising server means configured to receive a plurality of messages representing bet requests from a plurality of users over a communications network, each of said messages relating to a user's instructions to place a bet backing an outcome or laying an outcome, the server means being operable to process said instructions to match respective bets which back and lay a given outcome, wherein the sever means is further configured to determine whether an implied bet can be generated in dependence on the bet requests that have been received and have not yet been matched on any event, such that if said implied bet is accepted by a user, the unmatched bets will automatically be matched, and if so, to generate said implied bet.

3. A betting exchange system for permitting a plurality of users to bet against one another, the system comprising server means configured to receive bet requests from a plurality of users over a communications network, each of said requests comprising a bet backing or laying an outcome of an event, wherein the server means is operable to match respective bets which back and lay a given outcome, each of the plurality of users having an account for use on the system, the server means further comprising means for determining, for each request, the maximum amount which may be required to be transferred out of the account of the user originating the request, in dependence on all of the requests received from the originating user and on all possible outcomes of the event, the server means being operable to reject the request in the event that the determined deduction exceeds the originating user's account balance.

## **The Law**

7. The examiner objected that the claims of the present application relate to a method of doing business. This objection is based on section 1(2)(c) of the Act, the essential parts of which read:

*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) ...*

*(b) ...*

*© a scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer;*

*(d) ...*

*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.*

8. This section of the Act corresponds to articles 52(2) &(3) of the European Patent Convention (EPC). Section 130(7) of the Act provides that section 1 is so framed as to have, as nearly as practicable, the same effect as the corresponding provisions of the EPC. It is also well established<sup>1</sup> that I am bound by decisions of the courts in the United Kingdom, and should have regard to decisions of the European Boards of Appeal, at least insofar as they relate to the corresponding articles of the Convention.
9. The examination reports, the applicant's responses and Mr Walaski's arguments at the hearing dealt with the patentability issue on the assumption that for the invention to avoid the exclusion of section 1(2), it is necessary for it to involve what is referred to as a technical effect or a technical contribution. This assumption is based on a long history of decisions both under the Patents Act 1977 in the UK courts and under the EPC by the EPO Boards of Appeal. I agree this is the appropriate basis for the assessment as to patentability under section 1(2) and will follow it in this decision.
10. On another point; during the prosecution of the application, the approach in the Patent Office to the patentability of business methods has evolved somewhat. By "approach" I mean the Office's interpretation of statute and case law as it stands from time to time and the guidance offered to examiners and applicants in the Manual of Patent Practice and in Office Notices, based on that interpretation. Previously, inventions relating to methods of doing business were considered unpatentable whether or not they involved a technical contribution, and the present examination was initially conducted on that basis. The current approach is explained in an Office Notice entitled "Patents Act 1977: interpreting section 1(2)" published in the Patents and Designs Journal on 24 April 2002, the essence of which is that inventions which involve a technical contribution will not be refused merely because they relate to a business method. I confirmed at the start of the hearing that I would adopt the current approach as set out in that Office Notice in deciding the present case.
11. At the hearing, Mr Walaski said that the claimed invention must be considered as a whole. I agree with that and note that there are two aspects to this principle. The first is that a patentable invention may involve excluded matter, so long as the claim when assessed as a whole is not excluded. This was discussed for example in a decision of the EPO Technical Board of Appeal *Koch & Sterzel/X-ray apparatus*, [1988] 1-2 *OJEPO 19 (T26/86)* which supports the point Mr Walaski makes. It said:

"An invention must be assessed as a whole. If it makes use of both technical and non-technical means, the use of non-technical means does not detract from the technical character of the overall teaching."
12. The second is that in determining patentability one has to assess the substance rather than the form of the invention claimed. This did not arise as an issue in the correspondence between the examiner and Mr Walaski but I include it for completeness since the claims are set out in terms of systems involving computer hardware. Relevant

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<sup>1</sup> *Gale's Application* [1991] RPC 305, *Merrel Dow Pharmaceuticals v H. N. Norton* [1996] RPC 76, *Bristol Myers Squibb v Baker Norton Pharmaceuticals* [1999] RPC 253.

comments can be found in decisions including for example the *Merrill Lynch* case referred to above in which Fox L J said:

“ ... it seems to me clear, for the reasons indicated by Dillon L. J., that it cannot be permissible to patent an item excluded by section 1(2) under the guise of an article which contains that item - that is to say, in the case of a computer program, the patenting of a conventional computer containing that program.”

Consequently it is necessary to construe each claim carefully to determine whether it relates to excluded matter in the guise of some other article.

### **The issues**

13. Mr Walaski made a number of points at the hearing emphasising those he had already set out in correspondence with the examiner. In making this decision I have considered the arguments put forward both at the hearing and in the correspondence. He observed that the present invention does not merely relate to the automation of a conventional business method, but rather introduces an entirely new system which eliminates the standard role of the bookmaker and allows customers to bet against one another. Without making a decision here as to whether or not the invention is indeed new, I am content to accept for the purposes of this decision that it is innovative as Mr Walaski says.
14. He said that in looking for a technical contribution one must consider the overall effect of both hardware and software, the two operating together as an integrated system. In his view, the new software is unique and provides new functions, which he said self-evidently result in the hardware and software combination being used in a new way. That may be true but it does not answer the question whether the resulting system involves a technical effect. As I understand it, his argument is that the way the system operates is new, the system is a technical one because it uses the technical means provided by the computing and communications systems, it is therefore a new technical system and consequently must inevitably involve a new technical effect.
15. I do not agree with this view. It may be an obvious point to make but the implementation of a new software system by technical means can not of itself be sufficient to overcome the exclusion. If that were the case, any claim to conventional hardware performing a new function under the control of new software would be patentable. Mr Walaski says this reasoning is fundamentally flawed but it is clear from the case law referred to above that for the invention to be patentable, one must look to the substance of the invention, and one must find in it a technical effect. This is the precise point made in the quote from the *Merrill Lynch* case above. It seems to me that the substance of the invention in this case is characterised by the nature of the betting services, involving the provision of new ways of betting and a supporting financial system to deliver them effectively, rather than by any technical means and, contrary to Mr Walaski's argument, simply providing the new betting services by means of conventional technical elements does not of itself necessarily involve a technical effect.

16. Considering the substance of the invention as defined in Claim 1 more closely, Mr Walaski argued that a technical advance clearly lay in the data handling operations carried out by the system. His letter of 29 July 2001 highlights the particular features which he considers involve a technical advance as being those concerned with: “receiving and aggregating information arriving at a server from different users over a communications network and providing the aggregated information to said users as a basis for further decisions by the users”. Such an interactive system is, he says, by its very nature technical. He said that the system allows users for the first time to make bets with other users on opposite sides of a transaction, and argued that this amounts to a technical advance in itself.
17. These features relate to the internal mechanisms by which the software achieves its object and it is possible to imagine new technical means being employed in the internal operation of the computer and communication systems of a system such as this to realise the desired outcome. In the present case however the internal data manipulations do not relate to the technical operation of the system but are concerned solely with the betting context. They relate to such things as carrying out the calculations to aggregate requests from multiple users, generating the figures relating to the odds and the sizes of bets to be displayed, calculating implied bets, calculating matches between opposing bets and generating signals to display the calculated figures. They arise from the need to manipulate data in accordance with the calculations that underlie the betting system in order to generate the data which provide betting opportunities for users. The system operates in a computer and communications environment but that is conventional and it is the betting system per se that is innovative and creates the need for and determines the form of the data manipulations. The data manipulations relate to the business of creating a betting exchange environment rather than any technical aspect of the operation of the computer or communications systems. While technical development has no doubt been carried out in providing the practical realisation of the invention and implementing it in the computing and communications environment, the invention claimed is not one which results from addressing technical problems or issues. I am unable, prima facie, to find any technical effect in the provision of the data manipulation sub-systems or the way they operate.
18. However, Mr Walaski also said that in assessing whether or not the invention involves a technical effect, I should think of the system as an engine divorced from the betting context, which permits the selection, aggregation and matching of signals received from the users, their display in real-time to all the users, and the continuous updating of the display in response to the flow of information from users as they react to the display. He said it was this engine and not the betting model the applicant wished to patent. He argued that if a similar engine were applied in a different technical field there would be no doubt but that it would be patentable. Taking this suggestion at face value and notionally stripping away from claim 1 the elements that constitute the betting environment, the system remaining has the following features: It operates in an Internet or similar environment, it aggregates data of a first type from one set of users, aggregates data of an opposing type from a second set of users, carries out calculations

on the two sets of data including the degree to which they match, and provides and updates information to users based on the data received so that they can make choices and supply data back to the system. I do not think one can discern any technical contribution in those operations per se; they are simply a set of operations which can be carried out by a computing and communications system and do not of themselves involve or preclude the system involving a technical effect. I do not think that this approach demonstrates that the engine of the system is itself a technical system, or indeed helps to determine the question whether the system as a whole involves a technical effect.

19. Taking this a step further however, Mr Walaski suggested such an engine might be used in a technical context, and that would demonstrate that it was itself a technical system. He said: "... if we were in another technical field, where we had produced such a machine, there would not be an issue about that machine being patentable, because it would seem that from that combination, there is a technical contribution." I have considered this point and am surprised to find that I cannot envisage the engine being used in a technical system. I say this because the engine as I have represented it is concerned with the collection of data from users, and after internal manipulation of the data, its presentation to users. It is the *raison d'être* of the system to interact with users - and I cannot imagine simply replacing it into a clearly technical context where a computer system will typically interact with technical elements instead of or as well as with people. I am not saying that it could not be used in a technical context - it may be a failure of my imagination that I can not think of any, but the fact that it is difficult to envisage such use reinforces my view that this is not a technical system. Even in the event that it were to be placed in a technical context, it seems to me that the engine itself would not make any contribution to the technical nature of the resulting system. Such a system taken as a whole might be considered technical because of the technical environment in which the engine were placed, but that would be in spite of rather than because of the engine. On due consideration, this exercise tends to support my *prima facie* view that the invention lies in an excluded rather than a technical field. At any rate it does not in my view demonstrate that the engine and therefore the whole system involves a technical effect.
20. Mr Walaski likened the present system to that in the *Sohei* decision referred to above but I have been unable to draw any helpful guidance from it. In that decision the EPO Board of Appeal decided there was a technical effect in the operation of a software system having a number of different file memories and processing means for storing and processing data in respect of two different types of management activity, and in the provision of a single common form for inputting data for the two different types of processing. As I understand the Board's decision, they considered that this arrangement involved an advantageous technical principle. The present case carries out the software functions described above. There are similarities and differences in the functions of the two systems but these are not such that one can draw firm guidance on the basis of the *Sohei* decision whether the Board would have considered the present system also to involve a technical effect. In my view, as I have said, I do not consider that the present case involves such a technical principle and so I do not consider it is susceptible of the kind of analysis made by the Board of Appeal in the *Sohei* case.

Consequently I find that the *Sohei* decision does not disturb my view that the present invention lacks a technical effect.

21. Mr Walaski accepted that the decision of the Boards of Appeal under the EPC in the *PBS Partnership* case has been found to conflict with the practice of the courts in the UK and did not rely on it in arguing his case.
22. I have considered the invention from a number of different viewpoints proposed by Mr Walaski and have been unable to discern a technical effect. The invention concerns the implementation of a new betting system on a conventional hardware platform, and in my view it involves no new technical developments in its operation, nor any technical effect in the combination of hardware and new software. I consequently find that the invention of claim 1 is unpatentable since it relates to a method of doing business contrary to section 1(2) of the Act.
23. Mr Walaski also addressed the inventions claimed in claims 2 and 3. Claim 2 relates to the generation of implied bets. He said that this provided the ability for the system when it takes information in to automatically generate further information which expands the bet requests available on the system for users to accept. He said that was a technical advantage in the sense that the system receives information which it cannot process and then automatically generates new information which allows the input information and the generated information to be processed together. Claim 3 relates to the assessment of customers' exposure which Mr Walaski said was directed not to the betting model itself but to the technical implementation of the model and to the physical result which was to ensure a customer did not exceed his funds. The assessment resulted in the physical result that a bet was accepted or rejected, which Mr Walaski said was a sort of filtration process and was therefore technical. I have considered the inventions claimed in claims 2 and 3 and Mr Walaski's arguments carefully but do not agree with his conclusions. The functions carried out by the systems claimed are ones which relate to the betting process in the same way as those of claim 1. They are further refinements of the system in the area of betting functionality and not in any technical means for putting the system into effect. Mr Walaski uses technical terms such as "filtering" and "physical result" to describe the operation of the claim 2 and 3 systems, but I do not agree that those systems involve technical or physical developments. The result of both systems is in my view a business system per se and the implementation of the business system does not involve any technical effect. I consequently consider that the inventions in claims 2 and 3 are also excluded from patentability by section 1(2) of the Act.
24. As a result, I find that each of the three claims put forward by Mr Walaski for the hearing lacks patentable subject matter and I therefore refuse the patent application. I have gone on to review the specification as filed and the further amended claims which have been filed from time to time during prosecution, and am unable to find any basis for patentable claims elsewhere in the specification. Consequently I make no provision for an opportunity to amend the application.
25. Should this decision be reversed on appeal, I note that there are outstanding



examination issues and that Mr Walaski has asked for an opportunity to elaborate the claims. In that event the application should be referred back to the Patent Office for further processing.

### **Appeal**

26. This being a substantive matter, any appeal from this decision must be lodged within six weeks of the date of this decision.

Dated this 17<sup>th</sup> day of July 2002

Peter Marchant  
Deputy Director, acting for the Comptroller.

**THE PATENT OFFICE**