



19 January 2010

**PATENTS ACT 1977**

APPLICANT William Egan

ISSUE Whether patent application  
GB 0803988.5 complies with section  
1(1)(a) and 1(1)(b)

HEARING OFFICER J E Porter

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**Introduction**

- 1 Patent application GB 0803988.5 entitled "Access Control" was filed on 4 March 2008 in the name of Mr William Egan. There is no claim to an earlier priority date. It was published on 9 September 2009 as GB 2 458 118 A.
- 2 The examiner issued a combined search and examination report on 15 July 2008, in which he cited a number of prior art documents and raised possible novelty or inventive step objections. These were raised tentatively as, in the examiner's view, the claims were not clear in meaning.
- 3 On 22 July 2008 the applicant submitted amended claims and arguments in relation to the cited prior art documents. The examiner maintained novelty and inventive step objections in a further report of 22 April 2009, and in response the applicant amended the claims again on 29 May 2009, and submitted further arguments. On 10 July 2009, the examiner maintained that the invention as claimed continued to lack novelty and an inventive step.
- 4 As a result, on 23 July 2009 the applicant requested to be heard and the matter came before me at a telephone hearing on 19 November 2009. Mr Martin White, a patent attorney from Patents Designs and Brands Ltd, appeared for the applicant. The examiner, Dr Russell Maurice, also attended.

**The law**

- 5 Section 1(1) sets out the requirement that an invention protected by a patent must be both novel and involve an inventive step, 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;*

*(c) it is capable of industrial application;*

*(d) the grant of a patent for it is not excluded by subsections (2) and (3) or section 4A below;*

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

6 Section 2 sets out what novelty means; subsections (1) to (3) are relevant here:

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

*(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.*

*(3) The state of the art in the case of 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.*

7 Section 3 sets out how the presence of an inventive step is determined:

*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).*

8 The attorney made some submissions in respect of the way in which I should approach these provisions, which I consider as a part of my analysis below.

### **The invention**

9 The invention lies in the field of devices for controlling or preventing the spread of infections or contamination. It is an apparatus which includes a dispenser containing soap or another cleansing or sanitising agent. A person is required to operate the dispenser before a door to or from a hospital ward can be opened.

10 The latest set of claims, which were filed on 17 November 2009 for consideration at the hearing, comprises 7 independent claims: 1 and 17 to 22.

11 Claim 1 relates to an apparatus that controls access to and exit from a hospital ward, and reads:

*Apparatus that controls access to and exit from a hospital ward or a part of said hospital ward via at least one door; wherein the apparatus comprises:*

*a) a dispenser that dispenses one or more of soap, alcohol, an antiseptic, or another cleansing or sanitising agent and that includes within it a switch or device for providing a signal that it has been operated; and*

*b) a releasable lock for said door that is arranged to be automatically released in response to said signal in order to allow said access or exit.*

12 Claims 2 to 16 are dependent upon claim 1. Claims 17 and 20 relate to a method of using or locating the apparatus as claimed in order to restrict access to and/or exit from a hospital ward or part of a ward, and claims 18 and 19 relate to the use of the apparatus as claimed to reduce the risk or spread of infection or contamination. Claim 21 refers to a hospital ward or part of ward wherein access and exit are restricted using the claimed apparatus, and claim 22 is an omnibus claim.

13 The applicant also filed two alternative versions of claim 1 for consideration. The first alternative has the following inserted at the end of the claim:

*wherein the signal is generated by operation of the dispenser alone.*

14 The second alternative claim 1 has the following words inserted at the end of the claim:

*wherein the dispenser has within it a proximity switch and an actuator magnet that are operably linked so as to be able to make or break a circuit, depending upon whether or not the dispenser is operated.*

15 Furthermore, a third alternative claim set was presented, claim 1 of which reads:

*Apparatus that controls access to and exit from a hospital ward or a part of said hospital ward via at least one door, wherein the apparatus is an apparatus as substantially hereinbefore described with reference to any of Examples 1 to 4.*

16 The other claims in this set are 5 independent claims relating to the method of use or location of the apparatus, the use of the apparatus or to the hospital ward.

## **Arguments and analysis**

### *Introduction*

17 Despite the correspondence and amendment of the claims, the examiner maintains that the claims define an invention which is neither novel nor inventive. His position is set out most recently in his pre-hearing report of 8 October 2009.

18 The attorney made some further detailed submissions in response on 13 October 2009, and the applicant Mr Egan filed a witness statement in which he set out his qualifications and experience, and also his views on the interpretation of the documents cited by the examiner.

19 What I must do, following the submissions and the arguments made, is determine whether the present set of claims, or the various alternative claims, define an invention which is novel and inventive in light of the documents at issue.

### *Construing the claims*

20 At the hearing, the attorney highlighted the importance of construing the claims of the application in suit by looking at the application itself through the eyes of the skilled person. He went on to make some specific points of construction in

relation to the claims, with reference in part to the applicant's witness statement, as follows:

(i) the apparatus of the claims includes a "dispenser" but the dispenser is not the entire apparatus. The dispenser is a specific part of the apparatus and it should not be construed loosely to encompass other parts;

(ii) the dispenser itself contains the switch or device for providing a signal;

(iii) the door is released automatically, and solely in response to a signal from the dispenser.

21 I agree that the claims must be construed through the eyes of the skilled person. They must also be interpreted in light of the description and drawings of the application. Having carefully read and considered these, I agree that it is right to construe the claims as relating to apparatus which comprises a dispenser but also other things. I also agree that the claims, properly construed, require the dispenser itself to contain the switch or signaling device.

22 I also agree that the door is released solely in response to a signal from the dispenser – although the first alternative claim 1 brings this point out more clearly and explicitly.

#### *Novelty*

23 The attorney made some general points at the hearing about how to determine novelty. He argued that, if a prior art document is to show lack of novelty, it must contain "direct and unambiguous disclosure of all the features in the claim" as so construed. He recognised that novelty could be destroyed by "something implicit" within the prior art document, when seen through the eyes of the skilled person.

24 I agree entirely with these points and, with them in mind, I shall consider the three documents which the examiner contends show a lack of novelty.

#### *US 2007/0222554 A1 ("Hart")*

25 Hart is concerned with an access control system for medical facilities, nursing homes and similar establishments. The invention is principally concerned with a system for controlling access which requires a visitor to provide details of their destination and duration of visit, and which then issues them with a pass incorporating that information.

26 The applicant contends that his invention is not disclosed because Hart discloses a more complex system in which, after the cleansing of hands, a ticket or pass is issued and then used to gain entry. In other words, the document as a whole does not disclose automatic release of a door in response to a signal from a dispenser. The applicant also argues that there is no disclosure of a switch or signaling device within a dispenser.

27 The examiner argues that amongst the various features of Hart which relate to access control systems are those which render claim 1 and others not novel. At the hearing, he pointed in particular to paragraphs 118 and 121.

- 28 I have read Hart carefully, and I agree that the main thrust of it is directed to a system for issuing a ticket or pass, which may be incorporated as part of a hand cleaning apparatus. The system can be used to require hand cleaning prior to it issuing a pass, and may have a sensor – the failure of which to detect hand cleaning will mean that the door is not permitted to open. Successful hand cleaning will not, of itself, result in the door opening – the issuance and use of a pass is a further necessary step.
- 29 However, there is a change of emphasis starting at paragraph 119. This makes clear that the pass-issuing apparatus need not have a hand cleaning facility but, if it does, then that facility optionally can be used to control access. Further paragraphs then shed more light on the options for doing this. Paragraph 121 says that the doors will not open until a signal is provided by the hand cleaning apparatus, but that if hands are washed then one option is for the apparatus to send a signal to a proximity sensor permitting the door operating system to open the door automatically when a person approaches. (Another option is to send a signal to a magnetic card reader – but both options are clearly disclosed).
- 30 Paragraphs 123 to 126 go on to make clear that, as an alternative to controlling doors, or in addition to this, the apparatus may dispense an access card, authorisation badge or magnetic pass which are necessary to gain entrance along with hand cleaning. Paragraph 126 emphasises that the hand cleaning apparatus may issue a “permissive signal” or may issue an access card or pass, in order to control access.
- 31 Taking this as a whole, the idea of having the hand cleaning apparatus release the door without issuing a pass or other access token is clearly disclosed as an option, along with the option of requiring (in addition to hand-cleaning) a pass to be issued and used.
- 32 However, for this to be a novelty-destroying disclosure, these embodiments must also show that the switch, or other device for providing a signal that the hand cleaning apparatus has been operated, is located within the dispenser itself.
- 33 Looking carefully at the description and drawings, it seems to me that the hand cleaning apparatus (100) comprises much more than just the soap or gel dispenser itself. It of course contains such a dispenser, which in my view amounts to the nozzle (34) and container (38) and associated connections – but there is no suggestion that the sensor is located within this dispensing part of the apparatus. In fact, the only sensor disclosed is an optical sensor (114) located within the apparatus but outside the dispensing part.
- 34 I also note that paragraph 118 states that the hand cleaning apparatus can comprise a simple alcohol gel dispenser. Does this amount to an implicit disclosure of a sensor within a dispenser? I am not convinced that it does. First, this option does not appear linked to the discussion of the rather different embodiment which starts in paragraph 119 – and which discloses, as an option, the automatic release of the doors following hand cleaning. Furthermore, there is no discussion at all of where, with this simpler apparatus, a sensor may be required or located.

35 I find that Hart does not disclose the invention as claimed in the application in suit, because it does not show a soap or gel dispenser that includes within it a switch or device for providing a signal that it has been operated. I do not need to consider the alternative versions of the claims insofar as Hart is concerned.

*DE 198 08 081 A1 ("Vetter")*

36 Vetter is concerned with a system which allows people who have cleaned their hands to enter a hospital or other medical establishment, or a room within such premises, without having to touch a door handle. It refers to a sensor which detects when hands have been cleansed and which allows a door into a hygienic area to be released for a limited period of time.

37 The attorney contends that the bulk of the disclosure relates to having a sensor which detects the operation of a water tap, and that there is relatively little discussion of soap dispensers. He pointed to the title of the invention and the opening statements of the description, which refer to a connection between operation of a water tap and a door. He further argues that the document recommends that a sensor should not be used in conjunction with a soap dispenser alone, but incorporated with a tap as well.

38 This, he contends, means that Vetter is not a novelty-destroying document for two reasons. First, a recommendation not to do something is not a novelty-destroying disclosure of that thing being done. Second, claim 1 of the application in suit is limited to release of the door based solely on a signal from a sensor in a soap etc dispenser – so a system where the door is released in response to a signal from a soap dispenser and a tap is materially different.

39 The examiner argues that this document discloses an apparatus with the features of the claimed invention. In particular, he argues that there is disclosure of a sensor located in a soap dispenser alone, a signal from which can lead to release of the door. He also argues that release of the door based on signals from sensors in both a tap and a soap dispenser would read on to the claims in suit.

40 At the hearing, the discussion went on to focus on a few particular sentences contained in the description. These are:

*Es kann auch ein Sensor nur in den Seifenspender bzw. in den Wasserhahn eingebaut werden. Dieses kann als Kombination erfolgen. (col. 1 lines 41-42)*

and

*Ein alleiniger Einbau in den Seifenspender bzw. in den Papiertuchspender ist nicht empfehlenswert, da dadurch die Vorschrift des Händewaschens leichter umgangen werden kann. (col.1 lines 45-48)*

41 At the hearing, the attorney said in respect of the first extract that:

*"...it's saying that you can have it in the soap dispenser, you can have it in the water tap. Because it's referred to the water tap as well it's giving options. But the examiner is specifically choosing to have an option here which it goes on to say is not recommended."*

42 I agree that the first extract is disclosing various options for the location of the

sensor. The sensor can be incorporated only (“*nur*”) within the soap dispenser; it can be incorporated only within the water tap; or these things can be done in combination.

- 43 It therefore seems to me that there is disclosure of an embodiment of the invention in which the sensor is contained solely within the soap dispenser. I agree with the attorney that, in the second extract above, the recommendation is that incorporation of the sensor only in the soap dispenser and/or in the paper towel dispenser is not recommended, because hand-washing can then easily be avoided.
- 44 But it seems to me that, although this is not a preferred embodiment, and the advantage of incorporating the sensor in the water tap is explained – it is a disclosure of an alternative embodiment nonetheless. The fact that it is not preferable to go down this route may be relevant if I was considering inventive step, but it does not seem to me to change the fact that, for the purposes of determining novelty, there is disclosure of a sensor in the soap dispenser alone.
- 45 It follows that Vetter discloses, in one embodiment, a soap dispenser which contains within it a sensor which provides a signal that the dispenser has been operated. When the dispenser is operated, the door is released.
- 46 There is then another point I must consider. The attorney argued at the hearing that Vetter (and the other documents) refer to controlling access to a variety of premises, and that it was wrong for the examiner to “arbitrarily select” the references to hospitals or hospital rooms as his starting point, and to ignore the other possibilities. He argued that this was mistakenly to start with the present invention and to work backwards.
- 47 I do not agree with this criticism. I am not assessing inventive step, where use of hindsight to select particular features from amongst many may lead to an incorrect result. What matters is whether the prior art has clearly and unambiguously disclosed what is now claimed. The claims of the application in suit refer to hospital wards, and Vetter clearly talks about hospitals and accessing rooms within them. It therefore discloses the same apparatus as claimed in the present application being used for rooms in hospitals (as well as in other places).
- 48 In my view, Vetter therefore renders claims 1-5, 7-9, 13-15 and 17-21 as lacking in novelty. In particular, it discloses a time delay feature, a manual emergency over-ride and an alarm which sounds when this over-ride is operated.
- 49 It also renders the first alternative version of claim 1 as not novel since, as already discussed, in the embodiment in question the door is operated by virtue of a signal from the sensor in the soap dispenser alone.
- 50 The second alternative version of claim 1 is not shown to be lacking in novelty, because there is no disclosure in Vetter of the switch and actuator magnet construction. For similar reasons, the third alternative claim set is not lacking in novelty in light of Vetter.

GB 2 442 471 A (“Weeks”)

- 51 Weeks discloses a cradle unit designed to hold a conventional plunger-style soap container. The unit incorporates a switch which actuates a door release when the plunger on the container is operated.
- 52 The examiner is of the view that the container and the unit together form an apparatus which dispenses soap and which can therefore be called a dispenser. Weeks therefore discloses, he argues, a sensor contained in a dispenser which, when operated, leads automatically to release of the door.
- 53 The applicant argues that the conventional plunger-style container is the dispenser, and the cradle unit which contains the sensor is a separate piece of the apparatus. The sensor is not located within the dispenser – as required by his invention as claimed.
- 54 Having considered Weeks carefully, I conclude that the skilled person would view the apparatus as a whole as comprising more than the dispenser – which is a conventional soap dispensing container with plunger. The sensor is contained in the wider apparatus surrounding the dispenser, and so is not within what is described in Weeks as a conventional soap dispenser bottle. The flap which is attached to the cradle, and which also forms the switch, is used to operate the conventional dispenser – but that does not make it a part of the dispenser itself.
- 55 It follows that Weeks does not disclose the invention as claimed in the application in suit, because it does not show a dispenser that includes within it a switch or device for providing a signal that it has been operated. I do not need to consider the alternative versions of the claims insofar as Weeks is concerned.

*Inventive step*

- 56 Although I have found that the claims lack novelty, for completeness I shall go on to consider the arguments concerning whether there is an inventive step. In doing so, there was no disagreement that the approach I should adopt is to work through the well-established steps set out by the Court of Appeal in *Windsurfing*<sup>1</sup> and restated by that Court in *Pozzoli*<sup>2</sup>. These are:

(1)(a) Identify the notional “person skilled in the art”

(1)(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?

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<sup>1</sup> *Windsurfing International Inc. v Tabur Marine (Great Britain) Ltd* [1985] RPC 59

<sup>2</sup> *Pozzoli SpA v BDMO SA* [2007] EWCA Civ 588, [2007] FSR 37



- 57 The attorney also quite correctly pointed me to paragraph 3.10 of the *Manual of Patent Practice*, and the warnings it contains about applying hindsight and working forward from the stated problem to the desired solution when that solution is now known.
- 58 Regarding step 1, there is agreement that the skilled person is someone experienced in electronic access control systems, and who has a working knowledge of how such systems operate. The attorney at several points made the contention that the skilled person's common general knowledge would not normally include knowledge of patent applications. To be clear, I am not imputing to the skilled person any common general knowledge based on the contents of such applications.
- 59 I have already construed the claims as defining a system which controls access to or exit from a hospital ward automatically, in response to a signal from a device within a dispenser which releases a door when cleansing or sanitising agent is dispensed. That sets out the inventive concept as required by step 2.
- 60 Turning to step 3, the relevant prior art raised by the examiner is GB 2 432 353 A ("Burton"). It concerns an "intelligent dispensing unit" or "IDU" which requires users to clean their hands before entering a "restricted area".
- 61 The examiner's contention is that it discloses all the features of the claimed invention except use of the IDU to control access specifically to a hospital ward – but that it would be obvious to the skilled person that it could be so used.
- 62 The applicant's contention is that the invention in Burton requires the user both to clean his hands using the IDU and to present a valid "access control token" to the "Infection Control Unit" or "ICU" in order to release the door lock. The attorney argued at the hearing that Burton led the skilled person away from the invention in suit and guided him towards a system with access control tokens as well as hand cleansing. He argued that there is nothing in Burton which would make it obvious to the skilled person to take the different approach of allowing access only by operating the dispenser.
- 63 My difficulty with this line of argument comes about because of what the attorney referred to as a "throwaway remark" in paragraph 5 of page 1 of the description in Burton. It says (my emphasis):

*Once the I.C.U. has confirmed that a valid access control token has been presented at the access control reader it waits for information from the I.D.U. When the I.D.U. is operated the logical data stream is outputted and once read by the I.C.U. a decision is made whether to allow entry. Entry can only be made once a valid access and successful cleansing have both been carried out. The self contained I.D.U. intelligence is also able to permit access independently from the I.C.U. in the event of access control not being required.*

- 64 The attorney argued that this is not really understandable in the context of the general thrust of the disclosure, which makes clear that both hand-cleansing and an access token is required. He argued that it would not be obvious in the context of the general thrust of the disclosure and without hindsight to bestow particular meaning on this sentence, and in any event that the disclosure in Burton did not guide the skilled man to put a sensor within the dispenser itself.

- 65 Having considered this carefully, I take a different view. It seems clear to me that the skilled man would read the sentence and take it at face value, namely, as presenting an alternative to the main thrust of the invention, and making clear that the dispenser (IDU) can operate the door directly that it has been used, without the need to obtain an access control token and present it to the ICU.
- 66 For this reason, I think that Burton discloses the idea of having, in general terms, a dispenser which has contained within it the means to generate an electrical signal whenever it is operated, and which signal causes the release of the door. I agree with the attorney that the detailed contents of the “black boxes” are not set out, but I do not see that this is necessary in order for Burton to be relevant to invention as it is claimed in the application in suit.
- 67 I therefore find that the apparatus as claimed is disclosed in Burton, except that Burton does not refer to use of the system to control access to a hospital ward. This is the difference as identified in step 3 of the *Windsurfing/Pozzoli* steps.
- 68 Turning to step 4, I note that Burton makes clear that the primary function of the invention is to control the spread of harmful bacteria and specifically the spread of MRSA. The reference to controlling the spread of MRSA would have been a very clear steer towards using the invention in hospitals. I find that the skilled person would not have been exercising any degree of invention if he took the disclosure in Burton and applied it to hospital wards.
- 69 It follows that I consider claims 1, 2, 5-7 and 16-21 to be lacking an inventive step in light of Burton. In particular, it refers to the dispenser containing a specialist, non-rinse antibacterial solution. Furthermore, given that Burton shows it is not inventive to have a dispenser operating a door in accordance with claim 1, I do not consider that inventiveness is bestowed by the placing of two such dispensers on either side of that door – as set out in claim 16.
- 70 It also renders the first alternative version of claim 1 as lacking inventive step since, as already discussed, there is disclosure of access being possible by virtue of a signal from the dispenser alone.
- 71 The second alternative version of claim 1 is not shown to be lacking an inventive step, because there is no disclosure in Burton of the sensor or switch construction and nothing that would, in my view, lead the skilled man to produce a particular dispenser with a proximity switch and actuator magnet contained within it. For similar reasons, the third alternative claim set is not lacking in an inventive step in light of Burton.

## **Conclusion**

- 72 I conclude that the invention as defined in claims 1-5, 7-9, 13-15 and 17-21 is lacking in novelty, and furthermore that the invention as defined in claims 1, 2, 5-7 and 16-21 is lacking in an inventive step. I also conclude that the first alternative claim 1 is lacking in novelty and an inventive step.
- 73 However, the second alternative claim 1 and the third alternative claim set are not shown to be lacking in novelty or an inventive step by the documents discussed

in this decision.

- 74 For that reason, I give the applicant two months from the date of this decision in which to file amendments to the claims as they currently stand. If he does so, the application will be remitted to the examiner for further processing. If no amendments are filed, the application will be refused under section 18(3).

**Appeal**

- 75 Under the Practice Direction to Part 52 of the Civil Procedure Rules, any appeal must be lodged within 28 days.

**Dr J E PORTER**

Deputy Director acting for the Comptroller