



BL O/364/06

13th December 2006

PATENTS ACT 1977

APPLICANT Calvin John Evans

ISSUE Whether patent application number
GB 0126425.8 complies with section 1

HEARING OFFICER J J Elbro

DECISION

Introduction

- 1 Patent application GB 0126425.8 entitled "The Zapper" was filed on 3 November 2001 in the name of Calvin John Evans. The application was published on 20 August 2003 as GB 2385374.
- 2 The first substantive examination report under section 18(3) of the Patents Act 1977 ("the Act") was issued on 22 March 2004 and raised objections against most of the claims on the basis that they either lacked novelty or an inventive step. The applicant responded with amendments and various rounds of correspondence followed.
- 3 At one stage the applicant appointed an agent to handle the application and there was some confusion at one point over whether the application had been withdrawn. This was resolved but the examiner maintained an objection to lack of inventive step and the applicant was offered a hearing to resolve the matter in a letter of 24 August 2006.
- 4 The case came before me at a hearing on 13 October 2006. The applicant represented himself and was accompanied by his colleague Mr Hullock.

The application

- 5 The application relates to device, called the "Zapper" or "P.A.V.I." (Police Activated Vehicle Immobilisation) which can be used to remotely stop a vehicle by shutting down the engine. It is envisaged that the device may be useful to, for example, the Police in stopping a stolen car.
- 6 The latest claims defining the invention were submitted by the applicant's then agent with his letter of 13 March 2006. These include a main claim, claim 1, two claims dependent on claim 1 and an omnibus claim 4. Claim 1 reads as follows:

A device for remotely stopping a vehicle which has an engine management system controlling an ignition system, the receiver being capable of being activated to cause the engine management system to act on the ignition system so as to bring the vehicle to a halt with a juddering effect or interference with smooth running of the vehicle, the device further comprising a transmitter operable to activate the receiver remotely by transmitting a signal to it, the receiver being activated automatically in the event of it being tampered with, damaged or removed from the vehicle so as to immobilise the vehicle, and resetting means operable by a reset code to reset the device so as to permit restarting of the vehicle both after activation of the receiver by the transmitter and after activation of the receiver as a result of it being tampered with, damaged or removed from the vehicle.

- 7 The examiner broke claim 1 down into four component features, a characterisation accepted by Mr Evans at the hearing and which I adopt, viz:
- a. the immobilisation of a vehicle by a signal sent from a remote transmitter to a receiver connected to means to act on ignition system
 - b. the vehicle is brought to a halt with a juddering effect or interference with smooth running
 - c. the vehicle is immobilised if receiver tampered with
 - d. resetting means operable by a reset code to permit restarting of the vehicle.

The law

- 8 The examiner has argued that the invention does not involve an inventive step.

- 9 The relevant part of the law is Section 1(1) of the Act, which states that:

A patent may be grant only for an invention in respect of which the following conditions are satisfied, that is to say –

- (a) it is new
- (b) it involves an inventive step

- 10 Section 3 of the Act further provides that:

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).

- 11 Also relevant is section 2(1) of the Act. This provides that :

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

The state of the art

- 12 The original search on the application identified nine relevant documents. Three more were subsequently found when the search was completed prior to issue of the first examination report (the so-called “top-up” search), and four more cited in response to amendments made by the applicant. Some of the documents ceased to be relevant in view of amendments made, in particular the top-up documents which were published after the date of the application and fall within those covered by section 2(3) of the Act and therefore, by section 3 of the Act as quoted above, cannot be considered in respect of determining the presence of an inventive step.
- 13 Of the documents cited by the examiner, I consider the most relevant to be WO 98/30421 A1, WO 01/3915211 A1 and US 5394135 A. None of these (or any other document cited by the examiner) disclose all the features of claim 1. Rather, the examiner alleges that the first two documents are relevant to features a, c, and d above, while the third document is relevant to features a and b.
- 14 WO 98/30421 A1 (published 16 July 1998), as is apparent from the abstract, discloses a device with a similar intention to the present application, enabling the Police to stop a car by sending a signal which results in the vehicle being shut down by shutting off the fuel pump to the engine. It also discloses (page 18 line 32 to page 19 line 8) immobilizing the vehicle if the receiver is tampered with and allowing restarting of the vehicle on sending of a reset code (page 16 line 32 to page 17 line 1).
- 15 WO 01/39152 A1 (published 31 May 2001) also discloses a device enabling the Police to stop a car by sending a signal; this can work by either controlling the fuel system or the ignition system (page 15 second paragraph). It also discloses disabling the vehicle if the device is tampered with (page 16 line 30 to page 17 line 3) and allowing operation of the vehicle on sending a reset code (page 10 line 31 to page 11 line 4).
- 16 US 5394135 A discloses an anti-theft system in which if a signal is not received before a period of time elapses then the engine is prevented from running far above the engine’s idling speed by, in one embodiment (column 8 lines 10-12), interrupting power to the vehicle’s ignition coils. This will cause violent jerking of the vehicle (column 5 lines 35-55). The vehicle is slowed in this way, rather than the engine being cut completely and totally, to prevent the sudden total loss of power causing an accident (column 5 lines 17-20).

Arguments

- 17 The examiner has argued that the invention as claimed is merely a combination of known features each of which is performing its own function independently of the other. In other words the features do not interact upon one another to give a synergistic effect. According to the examiner it therefore follows that the juxtaposition of these known features in a single item does not involve an inventive step. The examiner in his arguments has referred to the decision of the House of Lords in *SABAF SpA v MFI Furniture Centres Ltd*

[2005] RPC 10.

- 18 The applicant, while accepting that the individual features of his invention are known separately, argues that there is nothing known which operates in precisely the way his invention does. He emphasized that he had spoken to numerous experts who had not seen anything like it before.

The invention

- 19 Before any investigation as to patentability can begin it is necessary to determine what the invention is. The applicant asserts that the invention is the combination of features as set out in claim 1.

- 20 But the mere fact that two features are combined in one item does not mean that they relate to just one invention. As Lord Hoffman noted in *SABAF* at paragraph 24:

“Two inventions do not become one invention because they are included in the same hardware. A compact motor car may contain many inventions, each operating independently of each other but all designed to contribute to the overall goal of having a compact car. That does not make the car a single invention.”

- 21 He then went on to the principle upon which you decide if you are dealing with a single invention or not. In paragraph 26 he states that:

“If the two integers interact upon each other, if there is synergy between them, they constitute a single invention having a combined effect and one applies section 3 to the idea of combining them. If each integer performs its own proper function independently of any of the others, then each is for the purposes of section 3 a separate invention and it has to be applied to each one separately.”

- 22 He then applied this principle and concluded that the two features in the patent before him had no effect upon each other and that therefore he was dealing with two inventions. Each of these inventions had, he concluded, to pass the test laid down in section 3 of the Act.

- 23 In this case I need to consider whether the various features of claim 1 do interact as the applicant claims.

Interaction between the features

- 24 The applicant's arguments on the advantages of combining the features of claim 1 as put forward at the hearing revolved around an increase in safety and usefulness of the device from having these multiple features. He also pointed out that his device was specifically to aid the Police, not directed at the same variety of uses, such as anti-theft devices, as some of the citations are.

- 25 The applicant also indicated that there were some aspects in the way the electronics in his device was put together which meant that, as I understand it, the features of the device were interconnected. However, he accepted that the

details of how the device works in detail are not present in the application, because he was trying to keep these details secret. I cannot therefore consider them in my decision on the application.

- 26 I have carefully considered the applicant's arguments but I cannot see any way in which the way in which the vehicle is brought to a halt (as in feature b) has any effect on or is affected by the features of immobilising the vehicle if the receiver is tampered with (feature c) or providing resetting means (feature d). Each of these features would appear to operate entirely independently of each other. I can see commercial advantages in having all of them present in one system, but I can see no synergy in terms of the features interacting upon each other.
- 27 From this and following the reasoning in *SABAF*, I must conclude that the application relates to (at least) two separate inventions, namely invention 1 comprising features a, c and d and invention 2 comprising features a and b. I must consider each of these in turn, applying to each invention the individual tests for patentability.
- 28 Considering the disclosure of WO 01/39152 A1 (as outlined in paragraph 16 above), I determine that this document discloses all of features a, c, and d and would therefore appear to render invention 1 not novel. This inevitably means that invention 1 cannot define an inventive step in view of WO 01/39152 A1.
- 29 It seems to me that WO 98/30421 A1 (as outlined in paragraph 15 above) discloses all of features a, c, and d with the exception of operating on the ignition system – it operates instead on the fuel supply. However, it seems to me that it would be part of the common general knowledge of one skilled in the art that shutting down the engine could analogously be achieved by control of the ignition system. This would therefore seem to me to be an obvious variation and invention 1 does not define an inventive step in view of WO 98/30421 A1. Although I do not rely on it, I note that both WO 01/39152 A1 and US 5394135 A mention controlling the ignition system as an alternative to controlling the fuel supply in brief terms, indicating the ease with which the skilled man could substitute one for the other.
- 30 In invention 2, the claimed inventive concept is immobilisation of a vehicle by signal sent from a remote transmitter to a receiver connected to means to act on ignition system, the vehicle being brought to a halt with a juddering effect or interference with smooth running of the engine. As is apparent from the large number of documents cited by the examiner, the common general knowledge of the person skilled in the art at the date of the application consisted of a variety of ways in which a vehicle could be stopped using a device operating in response to a remote transmitter, and also a number of ways of immobilizing an engine.
- 31 The difference between US 5394135 A and invention 2 is that the vehicle is being brought to a stop in response to a signal from a remote transmitter, as opposed to slowing the car to a minimal speed in response to not receiving a signal. This does not seem to me to constitute an inventive step. The skilled person would be well aware of the various means of stopping a car remotely

and being alerted by this document to the dangers of a sudden stop it would be obvious for him or her to incorporate the intermittent shut down into such a device. Invention 2 therefore does not appear to define an inventive step in view of US 5394135 A.

Other features disclosed in the application

- 32 Claim 2 of the application claims use of a hand-held or satellite transmitter transmitting infra-red, radio, laser or other high frequency signals to the receiver. This feature is present in many of the documents cited by the examiner. In particular, a hand-held transmitter is disclosed in WO 98/30421 A1 and a satellite transmitter in WO 01/39152 A1. I therefore find that claim 2 also lacks an inventive step.
- 33 Claim 3 claims the receiver being mounted on a bumper of the vehicle. The applicant stated at the hearing that "we just put it in the bumper because it was at the back. It could be anywhere on the car....obviously, if you set the signal you have got to be able to receive it." I agree and I find nothing inventive in the mounting of the receiver on the bumper.
- 34 The applicant, when asked at the hearing, could not identify any other features disclosed in the application which could be used as the basis for a claim, and having read the whole application I am of the opinion that there are no amendments which could be made which would introduce any feature capable of overcoming my finding of lack of inventive step above.

Conclusion

- 35 I have found that the application relates to two inventions. I have considered each invention in turn and found both to be lacking in inventive step at least. I have looked carefully through the application but have been unable to identify anything that might support a patentable claim. I therefore refuse the application under Section 18(3) of the Act on the grounds that the claimed invention is excluded under section 1 of the Act.

Appeal

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

J J Elbro

Deputy Director acting for the Comptroller