



not patentable under section 1(1)(c) of the Patents Act.

6 Section 1 of the Act reads 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) ...;

(b) .....

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

7 The Act defines “industrial application” in Section 4(1) which reads:

*Subject to subsection (2) below, an invention shall be taken to be capable of industrial application if it can be made or used in any kind of industry, including agriculture.”*

8 Subsection 2 refers to various methods of medical treatment and is not relevant to this application.

9 It is accepted practice that processes or articles alleged to operate in a manner which is clearly contrary to well-established physical laws, such as perpetual motion machines, are regarded as not having industrial application.

### **Argument**

10 The examiner is of the opinion that the invention would operate in a manner that contravenes the law of the conservation of energy which states that:

*“Energy may be transformed from one form to another, but it cannot be created or destroyed.”*

11 According to the examiner energy will be lost from the propulsion system set out in the application due to friction and heat generation within the various components. Energy will also be taken out of the system to propel the vehicle.

12 Mr Willmott suggested that improvements had been made in the efficiency of many of the components in his system in particular in compressors. I am prepared to accept this however the efficiency of such components would still be significantly less than 100% which would mean that when they are operated they would still lose energy to friction and heat. Consequently the usable energy given out by the various components would be less than the energy put in. Without any external input of energy the system would, assuming that it could be started, simply stop working as usable energy is lost to friction and heat and energy is taken out to propel the vehicle.

13 At the hearing Mr Willmott suggested the possibility of including further batteries to make up for any energy lost in the system. Adding batteries or indeed increasing the size of the existing battery would however not alter the

fact that the system operates with no external sources of energy. The additional batteries or a larger battery would still need to be recharged by the alternator. If installed fully charged then they might prolong the initial period that the vehicle would be able to run but they would not enable it to run continuously without any further external energy input.

- 14 The application refers to developments in compressed air vehicles on the continent. This was a point touched on briefly by Mr Willmott at the hearing. Although he did not go into detail it is clear from a quick search of the internet that much work has indeed been done on developing vehicles that run on compressed air<sup>1</sup>. Examples are available of fairly advanced vehicles that are driven by compressed air from on-board tanks. However it is clear that the designers of these vehicles have recognised that it is necessary to recharge the vehicle from external sources. In the example shown in the website referred to in footnote 1, recharging is achieved by filling the tank with compressed air from a special pump at a filling station or alternatively connecting an on-board compressor to an external source of electricity so as to allow the compressor to refill the tank. I have not been able to find any examples of vehicles that actually work in the manner suggested in this application without the requirement for recharging the system from external sources nor has Mr Willmott been able to show me any such vehicles. This is not surprising given that for the reasons set out above such a vehicle would be operating contrary to the well established scientific laws.

### **Decision**

- 15 Having considered all the arguments before me it is clear that the invention claimed by Mr Willmott is incapable of industrial application. Moreover I can find nothing in the application to overcome this fundamental objection. I therefore refuse the application under section 18(3) as being excluded under section 1(1)(c).

### **Appeal**

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

### **P THORPE**

Deputy Director acting for the Comptroller

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<sup>1</sup> See for example <http://www.theaircar.com/car.html>