



BL 0/275/06

27 September 2006

PATENTS ACT 1977

APPLICANT	Mr James Anthony Powell
ISSUE	Whether patent application number GB 0207203.1 relates to a patentable invention
HEARING OFFICER	Mrs S E Chalmers

DECISION

History of the application

- 1 The application, entitled "Sea bed food producing habitats", was filed on 27 March 2002. A search report was issued on 5 June 2003, in which a number of documents were cited, together with a warning that the application lacked novelty and an inventive step. An examination report was issued on 2 November 2004, in which the examiner argued that, in addition to the invention lacking novelty as required by section 1(1)(a) on the basis of five citations, the application was not patentable because there was insufficient disclosure in the description to support the claims. Following further rounds of correspondence, the examiner also objected that the invention was not capable of industrial application as it failed to comply with well established physical laws
- 2 It became clear that neither the examiner nor the applicant were persuaded by the arguments of the other. As a result, a hearing was held before me on 13th September 2006 to resolve these issues. Mr Powell appeared in person and was supported by Dr Geoff Whitely, and the examiner, Mr Paul Jenkins, also attended. At the hearing, Mr Powell provided me with some further written explanation about his invention, and I confirm that I have taken these into account in this decision.

The application

- 3 The invention relates to the creation of sea bed food producing habitats with scrap iron and steel. The iron or steel is submerged in water and a chemical reaction between carbon dioxide and water to produce carbohydrates, which can be used as food for all aquatic life, is said to occur. It is claimed in the

application that this reaction is enabled by a new source of energy that is released when the scrap metal objects are submerged in water. It is stated that the released energy sustains life at the base of the food chain, especially in lightless zones. Although the title refers to sea bed habitats, the application states that the process will also work in lakes and rivers, although seawater is preferred. There is just the one independent claim, which was filed after the filing date of the application, and relates to a method of utilising scrap iron.

4 I need only recite claim 1, which reads:

“A method of utilizing scrap iron – steel objects submerged in water to form food producing habitats wherein the chemical energy of the metal objects is converted into the chemical energy of food for all aquatic life”.

The law

5 Section 1(1) of the Patents Act 1977 states:

“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 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.”

Section 14(3) reads:

“The specification of an application shall disclose the invention in a manner which is clear enough and complete enough for the invention to be performed by a person skilled in the art.”

The issues

6 In his examination report of 13 January 2006, the examiner laid out the grounds on which he considered the application for a patent should be refused. I will deal with each of these issues in turn.

Novelty

7 The examiner objected that the claimed invention was already known at the date of filing the application. He relied on a number of documents to back up his assertion, but at the hearing I concentrated on the document that I considered to be the most relevant, namely US 5807023. This document describes an artificial reef made from a vehicle tyre or collection of vehicle

tyres with a number of corrodible iron items (e.g. nails or staples) inserted through the or each wall of the tyre(s). The figures show the tyre(s) resting on the seabed. The abstract states that “[i]n use, the inserts corrode to promote rapid phytoplankton growth” and “the phytoplankton consumes carbon dioxide during the rapid growth”. Mr Powell argued that this document was quite different from his invention, since the former requires sunlight, which is backed up by various comments in the description (see, for example, column 6 lines 16-26 and column 8 lines 14-17), while his invention would work in dark conditions. He claimed his invention was different from the disclosure in the cited document because he was “claiming a new energy source from iron”.

- 8 I have carefully reviewed this citation against the claims, and consider that the claimed invention does not include any new technical information that has not already been disclosed in US 5807023. This document clearly shows that the process of depositing iron into seawater to promote phytoplankton growth is already known. I therefore find that the applicant’s invention as claimed is not new, as required by section 1(1)(a).

Industrial application

- 9 Mr Powell acknowledged at the hearing that the only significant difference between his application and the process described in US 5807203 was that his application did not involve light. He argued that the reaction in which carbon dioxide and water combine to form carbohydrate and oxygen derived its energy not from sunlight as is conventional in photosynthesis, but from a new source of energy, termed “Uniquenergy”, released from the scrap metal objects after being submerged in water. In his application, Mr Powell refers to “all iron as star stuff”, and claims that the submerged metal structures release “the energy of solidified light”.
- 10 At the hearing, Mr Powell provided a video recording showing various stages over time of a tank of water with submerged metal objects, and a glass jar with a nail sitting in water, placed on a window ledge outside. He also provided two samples in jars, one containing a clear liquid which he claimed to be water, and one containing a red-brown sludge or detritus, which he stated was algae. Mr Powell explained his invention, and why it was different from the prior art, at great length. I tried to glean from Mr Powell exactly what the video was intended to show. As I understand it, he is claiming that the water stays clean and does not stagnate, providing a conducive environment for sustaining life by the growth of phytoplankton by the production of carbohydrates from water and carbon dioxide. What he did not make clear was how his filmed examples differed from the prior art, inasmuch as they appeared to be located in an environment subjected to sunlight.
- 11 I have done my best to understand the applicant’s invention in the light of the application, the arguments in the correspondence and his explanation at the hearing. However, I have to say that I remain in the dark (a) as to how the reaction between carbon dioxide and water to produce carbohydrate can occur without the input of sunlight, and (b) what exactly the new type of energy is and how it is derived. It seems to me that Mr Powell is claiming that this new

energy is 'generated' from the metal objects which have been submerged in water. It is an inescapable fact that energy cannot be created from nothing, and I am bound to conclude that Mr Powell's invention breaks the laws of physics, and cannot work in the way described. Even if it were the case that Mr Powell had discovered a new source of energy, patent law states that a "discovery" as such cannot be patented. I therefore find that the invention is not capable of industrial application as required by section 1(1)(c).

Is there enough information?

- 12 The examiner has argued that the application does not contain enough information about the invention. Specifically, there was no detail about the creation of carbon dioxide from the submergence of iron or steel objects in water. At the hearing, Mr Powell explained that the carbon dioxide was already present in the water, and more could be absorbed from the atmosphere as the carbon dioxide in the water was consumed. I can accept that, although the description is not entirely clear about the origin of the carbon dioxide, this is in accordance with the generally accepted practice of ocean fertilization using iron.
- 13 However, in his application, Mr Powell has not explained how the new energy that he has claimed to have discovered is derived nor what it is supposed to be. I also note that the description states that the new energy referred to above "is a major breakthrough to be explained in more detail at a later date". I am therefore in no doubt that the application is neither clear nor complete enough for the invention to be performed by a person skilled in the art, as required by section 14(3) of the Act.

Conclusion

- 14 I have found that the invention as described does not comply with sections 1(1)(a), 1(1)(c) or 14(3). I have taken note of Mr Powell's statement that his invention does not require light; however, I do not consider there is enough information in the application that could form the basis of an allowable amendment that would meet these objections. I therefore refuse the application.

Appeal

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

MRS S E CHALMERS

Deputy Director acting for the Comptroller