



04 February 2022

## PATENTS ACT 1977

APPLICANT                            Nenad & Predrag Paunovic

ISSUE                                 Whether GB 1721078.2 complies with Sections 2  
and 3 of the Patents Act 1977

HEARING OFFICER                Stephen Brown

---

## DECISION

### Introduction

- 1 Patent Application GB 1721078.2 was published on 26<sup>th</sup> June 2019 as GB 2569534. No claim to any earlier priority is made so the priority date is considered to be the filing date of the application, i.e. 16<sup>th</sup> December 2017
- 2 The applicant and the examiner have had several rounds of correspondence but have been unable to reach agreement on whether the application makes the required inventive step to comply with the Act.
- 3 The examiner wrote to Mr Paunovic on 14<sup>th</sup> July inviting him to request a hearing before a senior officer at the IPO. In that letter he also informed Mr Paunovic that should he respond with further amendments or arguments he would consider forwarding the application to a hearing in any case. Mr Paunovic responded on 20<sup>th</sup> July with amended claims.
- 4 The examiner considered the amendments filed but remained of the view that the application did not meet the requirements of the Section 3 of the Act and forwarded the application for a decision on the papers on 14<sup>th</sup> December 2021.
- 5 I note that Mr Paunovic has made no further response to this letter. As a result, I will give due consideration to all the observations and arguments he has filed on this application in his previous responses.

### The Application

- 6 It is helpful if I set out my understanding of the invention. In doing so I have reproduced Figures 9, 10 and 11 of the specification.

- 7 The claimed invention is directed to a renewable energy system (2). The system has rotating branches (eg 14, 16) on which are mounted small windmills (10) and solar panels (6). Of particular interest in this application is the further mounting of a radar (15) and camera (8) on the rotating arm.

3/7

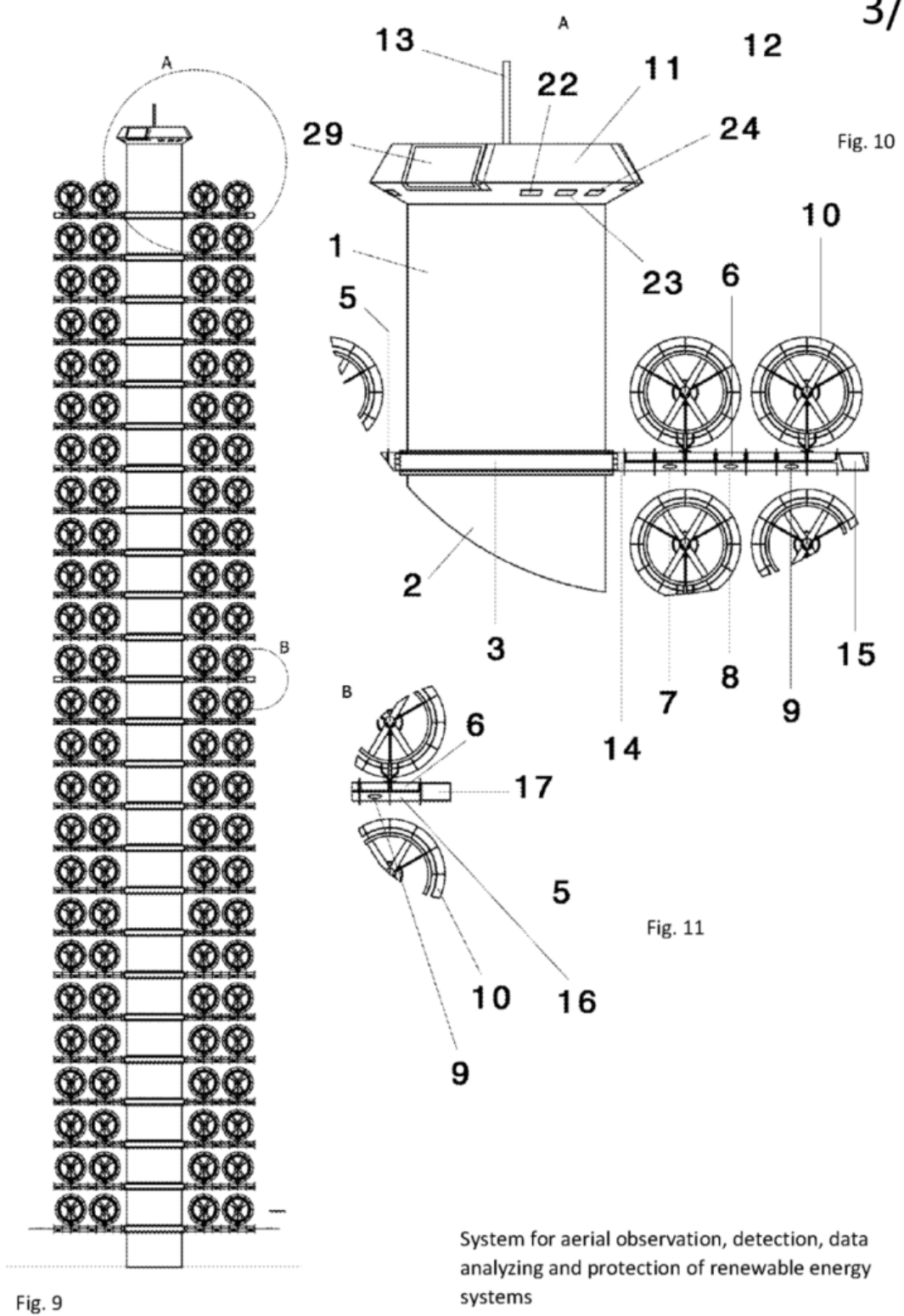


Fig. 10

Fig. 11

Fig. 9

System for aerial observation, detection, data analyzing and protection of renewable energy systems

- 8 For the avoidance of doubt, I consider the claims filed on 20<sup>th</sup> July 2021 to be the current claims. These are:

*Claim 1*

*A renewable energy system where at least one radar system is mounted to at least one rotating branch and at least one camera mounted to at least one rotating branch*

*Claim 2*

*A renewable energy system according to claim 1 with at least one radar system mounted in slanted position relative to the plane which is perpendicular relative to the plane upon which the branch rotates*

*Claim 3*

*A renewable energy system according to claim 1 with at least one radar system is slanted in upward direction relative to the plane upon which the branch rotates.*

**The Issue**

- 9 The question before me is whether the claims of the application are novel and inventive.

**The Law**

- 10 Section 1(1) of the Act sets out what is required of a patentable invention as follows:

*1(1) 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*

- 11 Section 2 of the Act sets out what 'new' means as follows:

*2(1) An invention shall be taken to be new if it does not form part of the state of the art.*

*2(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*

*2(3) The state of the Art in the case on 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*

12 Further, section 3 of the Act states:

*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).*

13 In addition to statute, the courts have long used the so called *Windsurfing* test to assess issues of inventive step. This test was reformulated by the Court of Appeal in *Pozzoli*<sup>1</sup>. Paragraph 23 of this decision lays out the test as:

*(1) (a) Identify the notional "person skilled in the art"*

*(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?*

### **Construing the Claim**

14 For the purposes of this decision I am going to first construe the claim. Specifically, how I understand the claim will impact on any decision I have to make on novelty and/or inventive step. As such, I need to come to a view before I make any judgement on either of those issues.

---

<sup>1</sup> *Pozzoli Spa v BDMO SA & Anor* [2007] EWCA Civ 588

- 15 Turning to claim 1, I believe I need to come to a view on what is meant by the terms “renewable energy system” and “one rotating branch”.
- 16 The term “renewable energy system” is in the applicant’s own words on page 3 of the specification a device for “renewable energy conversion (wind, or solar or wind and solar energy). I see no reason to depart from this view,
- 17 The “rotating branch” in this case is “a support wing” that rotates about the main support pillar of the system. The claim refers to rotating supports that carry a camera or a radar system. It is silent on any other feature of the system. This provides a first potential construction:

*“a renewable energy system comprising rotating supports on which are mounted a radar and/or a camera”*

- 18 However, there is potentially a second construction based on the actual disclosure of the specification. This shows quite clearly rotating supports on which are mounted the wind and solar energy conversion devices. It shows no other alternatives. It also shows these rotating supports as also supporting a camera and/or a radar. It follows that the only supported embodiment of the application is for the support branches to support the energy conversion device and the camera or radar. On this basis I can come to a second construction:

*“ a renewable energy conversion device comprising at least one rotating support on which is mounted the energy conversion device, a camera and a radar.”*

## **Novelty**

- 19 For an application to be considered allowable, it has to be novel over the prior art. I will begin by considering the first construction of claim 1 as I have laid it out above. I will turn first to US 2011/0084486 which is the US equivalent of WO 2010/04136 cited by the Examiner and attributed to MITSUBISHI.
- 20 There can be no doubt that MITSUBISHI is for a renewable energy system as Figs 2-4 clearly illustrate a wind turbine (1). Of specific interest to the application in hand are figures 6a, 6b and paragraph 82 of the US specification. These show a “movable mechanism that revolves around the support column 2”. In Fig 6a a radar is shown mounted on a support 9a extending from the mechanism and in 6b a camera is shown. Notably, paragraph 82 also makes clear that the camera and radar “may be installed in line on the installation platform 9a”.
- 21 There is no doubt in my mind that this has all the features of the claim as I have construed it in the first construction, above. Specifically, it is a renewable energy system (1) with a rotating support (9 & 9a) on which is mounted a radar (12) and/or a camera (13b). I thus conclude that claim 1 is not novel over the disclosure of US’486.
- 22 However, for completeness, I think it appropriate to continue and consider the second construction I have arrived at given that, for all practical purposes, it is the only one that is supported by the application.

- 23 What is clear from MITSUBISHI is that there is no “energy conversion device” mounted on the support arm (9a). It follows that the claim is novel over this but that is not the end of the enquiry. I will now consider whether it sets out an inventive step over the prior art.

## **Inventive Step**

### **The Skilled person and their common general knowledge**

- 24 The first step in the process of determining if there is an inventive step is to determine the skilled person and to consider their common general knowledge. The examiner in their report of 14<sup>th</sup> July 2021 considered the skilled person to be a designer of wind turbines and in particular wind turbine safety and monitoring systems. I do not think that is an unfair characterisation though I would add that they would have some knowledge of solar power systems as well.
- 25 What then is their common general knowledge? The examiner argues that they would be aware of common design features and advances of technology in the field of monitoring systems for large structures. I do not doubt that this is the case, but I think their knowledge can be more accurately defined. Specifically, I think they would well know that radar and cameras can be used on wind turbine devices to monitor the local environment. One particular use of these is to detect birds.

### ***Construing the Claim and identifying the Inventive Concept***

- 26 I have already construed the claim so I will move on to what I believe the inventive concept of the claim actually is. I think this is relatively simple in this instance. Based on the construction that the support arm rotates around the main support of the renewable energy system and carries the energy conversion devices, it is one of additionally locating a camera and or radar on the same arm.

## **The State of the Art**

- 27 The applicant has very helpfully identified their own previous application GB2542336. Without doubt the renewable energy system in that application is, to all intents and purposes, the same as this one. The only difference being that the earlier application does not include a camera or radar located on the rotating support arms.
- 28 The renewable energy device of CH668623 (GEMARO) is not dissimilar to that of the application. It also shows a number of wind energy conversion devices located on support arms that rotate around a central pillar.
- 29 Further examples of rotating support arms carrying wind energy conversion devices can be seen in WO 2016/128005 and WO 2016/150447 both attributed to VESTAS. In each case a wind turbine is located at the end of a support arm that rotates about a central pillar.

- 30 In keeping with the applicant's own previous patent, the difference between these and the inventive concept is the absence of a radar or camera located on the rotating support arm.
- 31 There is, however, a body of prior art that shows the use of cameras and radars on renewable energy devices.
- 32 US 2016/0050889 (IDENTIFLIGHT) is a further example of a bird detection system for a wind turbine. In this example the sensor is located either on the nacelle or tower of the wind turbine.
- 33 Finally, I will return to the citation of MITSUBISHI. In addition to the location of the sensors on a supporting arm that rotates about the central pillar of the system, it also shows in Fig 4 a sensor located on the nacelle and in Fig 5 located on support arms on the nacelle. Fig 5 is of particular interest as it shows support arms extending from either end of the nacelle on which sensors are mounted. It should be borne in mind that the nacelle itself rotates about the pillar and supports the wind conversion device.
- 34 Each of these citations makes it very clear that it is known to use radar and cameras on a renewable energy system to provide a degree of monitoring.
- 35 What then is the difference between the inventive concept of this application and the prior art. Put simply, it is the location of radar and camera on the same rotating support arm as the energy conversion device.

### **Does this constitute an inventive step?**

- 36 After careful thought I do not believe that this constitutes the required inventive step. Using a radar and a camera to monitor the surrounds of a wind turbine is known. It is also known to locate these sensors on a rotating arm. Further it is known to locate energy conversion devices on rotating arms. It would, in my opinion, require no inventive ingenuity to locate all three types of device on the same arm.
- 37 For that reason, I do not consider claim 1 to make an inventive step as required by Section 1(1) of the Act.

### **Collocation**

- 38 I also find support for this view when considering whether the application could also be viewed as a collocation. The applicant's own prior art makes it very clear the structure of the renewable system is known. That is the first part of the invention.
- 39 The other part of the invention is the camera and radar system. These two are known and more importantly share no synergy with the first part of the invention. They are merely co-located on the same support arm. To borrow from Lord Hoffman in *Sabaf SpA v MFI Furniture Centres Ltd* [2005] RPC 10, [2004] UKHL 45

*“two inventions do not become one invention because they are included in the same hardware”.*

- 40 I therefore conclude that Claim 1 of the application can be viewed as a collocation of two known elements and thus lacking novelty.

### **Other Claims**

- 41 Claims 2 and 3 merely specify that the radar system is slanted, in some fashion, relative to the supporting arm. I believe that these are mere design choices as it is well known for radars to be mounted at a variety of angles. As such, I believe that the details of claims 2 & 3 would be obvious variations to the skilled person.

### **Conclusion**

- 42 I have decided that the invention defined in the claims either lacks novelty under Section 1(1)(a) of the Act or, if construed differently, lacks an inventive step under Section 1(1)(b).
- 43 Having read the specification carefully, I cannot see any amendment that might present the required inventive step. I therefore refuse the application under Section 18(3).

### **Appeal**

- 44 Any appeal must be lodged within 28 days after the date of this decision.

**Dr Stephen Brown**

Deputy Director, acting for the Comptroller