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**Datasheet for the decision
of 18 December 2024**

Case Number: T 1048/22 - 3.4.03

Application Number: 16813117.5

Publication Number: 3391532

IPC: H02S20/00, H02S40/38,
H02S40/34, H02S20/20

Language of the proceedings: EN

Title of invention:

POWER GENERATION AND CELL STORAGE APPARATUS

Applicant:

Grafmarine

Headword:

Relevant legal provisions:

EPC Art. 84, 111(1), 123(2)

Keyword:

Amendments - allowable (yes)

Claims - clarity (yes) - support in the description (yes)

Appeal decision - remittal to the department of first instance
(yes)



Beschwerdekammern

Boards of Appeal

Chambres de recours

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Case Number: T 1048/22 - 3.4.03

D E C I S I O N
of Technical Board of Appeal 3.4.03
of 18 December 2024

Appellant: Grafmarine
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Pacific Road
Altrincham, Cheshire WA14 5BJ (GB)

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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 2 December 2021
refusing European patent application No.
16813117.5 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman T. Häusser
Members: A. Böhm-Pélissier
T. Bokor

Summary of Facts and Submissions

- I. The appeal is against the decision of the examining division to refuse European patent application No. 16 813 117 on the grounds of added subject-matter and lack of clarity and lack of support of the claims by the description (Articles 123(2) and 84 EPC). The application was refused following the applicant's request for a decision on the state of the file dated 19 October 2021. The decision made reference to the communications dated 16 September 2020 and 8 June 2021.
- II. **Reference** is made to the application as published (**D0**):
WO 2017/103563 A1 (application nr. PCT/GB2016/053722)
- III. The appellant (applicant) **requests** that the decision to refuse the patent application be set aside and that the application be remitted to the examining division for further examination on novelty and inventive step.
- IV. **Claim 1** according to the pending **sole request** (claims 1 to 10 filed with the letter dated 25 November 2019; amended description pages 2, 6, 8, and 12 filed with the letter dated 24 April 2019) reads as follows (labelling "(A)", "(B)", ..., "(H)" and highlighting of the amendments with respect to original claim 1 added by the board, apart from inserted reference signs):
- (A) An apparatus (1) for the capture and storage of power, the apparatus (1) comprising:*
- (B) i) a first layer (20) comprising a protective layer, comprising one or more protrusions (22) that enable two or more apparatuses (1) to interconnect with each other;*

(C) ii) a second layer (12) engaged with the first layer (20), the second layer (12) comprising a device that is able to generate power from exposure to its environment,

(D) and one or more protrusions (22) that enable two or more apparatuses (1) to interconnect with each other;

(E) iii) a third layer (2) engaged with the second layer, the third layer (2) comprising a power storage facility; ~~one or more protrusions that enable two or more apparatuses to interconnect with each other;~~ and

(F) iv) a fourth layer engaged with the third layer (2),

(G) the fourth layer comprising a power grid which enables power to be transferred between interconnected apparatuses (1);

(H) wherein the layers are secured together using a connecting member (10) inserted through an opening (8, 18, 26) in each layer.

V. The present claim request was filed during the examination proceedings. In the original claims feature (D) was added after feature (E). The appellant corrected the alleged error and recited feature (D) after feature (C). The examining division objected that this amendment had no basis in the documents as originally filed and that the claims lacked clarity and support in the description.

VI. The arguments of the appellant can be summarised as follows:

- (a) The amendments in claim 1 had a basis in the original description and figures;
- (b) Page 6 of the description disclosed that both the first layer and the second layer had protrusions;

- (c) This text passage had to be read in conjunction with the passage on pages 1 and 2, where the other features of claim 1 were listed;
- (d) Figure 1 and the corresponding part of the description supported this disclosure.

Reasons for the Decision

1. The invention

- 1.1 The invention relates to modular units for energy generation (solar panels or hydrogen fuel cells) and energy storage, which can be mounted, for example, on a ship and connected to each other to form a large area on different surfaces of the ship.
- 1.2 The units are connected by a layered structure of four layers and protrusions in two of the layers.

2. Added subject-matter, clarity, support in the description

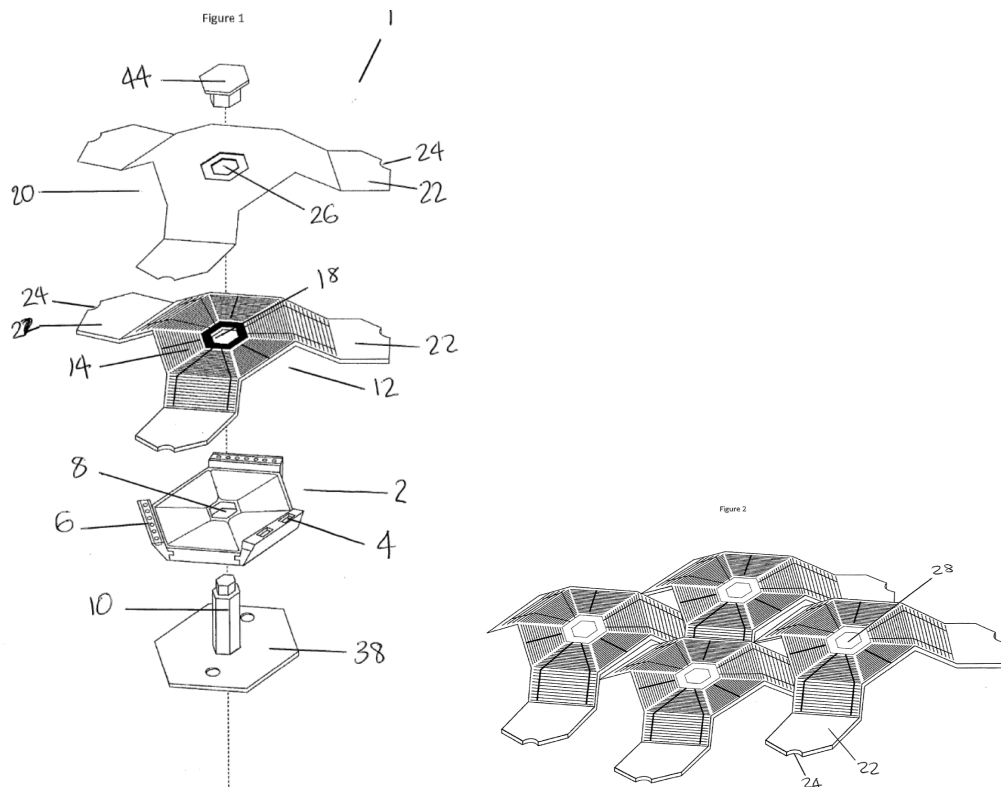
- 2.1 The examining division identified the following features of present claim 1:
 - (i) first to fourth layers (features (B) to (F));
 - (ii) the first layer comprises one or more protrusions that enable two or more apparatuses to interconnect with each other (feature (B)); and
 - (iii) the second layer comprises one or more protrusions that enable two or more apparatuses to interconnect with each other (features (C) and (D)).

- 2.2 The examining division argued that none of the following parts (a) to (e) of D0 in isolation included the combination of features (i) to (iii):
- (a) in original claim 1 only features (i) and (ii) were disclosed;
 - (b) in original claim 8 features (i) to (iii) were disclosed, but with protrusions that were also provided in the third layer by reference to original claim 1 (text passage (a)), this feature now being missing in claim 1;
 - (c) in the passage of the original description from page 1, line 17 to page 2, line 12, only features (i) and (ii) were disclosed, but not feature (iii);
 - (d) in the embodiments of the figures, features (ii) and (iii) were disclosed without feature (i);
 - (e) in the passage in the original description from page 6, line 13 to page 7, line 10 (recited in part below; underlining added by the board) only features (ii) and (iii) were disclosed without feature (i):

The first layer and/or the second layer also comprise one or more protrusions extending from one or more of its edges, which enable two or more apparatuses to interconnect with each other. When a plurality of apparatuses of the invention are positioned adjacent each other, the protrusions on any given apparatus are designed to extend underneath an adjacent apparatus in order to help the adjacent apparatuses interconnect with each other. The one or more protrusions each typically comprise a semi-circular recess at the end thereof; these one or more semi-circular recesses are designed to engage with and extend halfway around the connecting members of the adjacent apparatuses, such that two such protrusions and recesses of neighbouring apparatuses will engage with and

completely surround the connecting member of any given apparatus in an array.

- 2.3 In the examining division's opinion parts (c) and (e) contradicted each other, because in part (c) protrusions were defined only in the first layer and part (e) disclosed three options, i.e. that there may be protrusions in the first layer, in the second layer or in both.



Application, Figs. 1 and 2

- 2.4 The appellant argued that part (c) described the invention in general terms ("*Therefore, in accordance with the invention, there is provided ...*") with protrusions in the first layer (20) only. Part (e) disclosed, in addition, the alternative option that the protrusions were in the second layer (12) or that in addition to the first layer there are protrusions also

in the second layer (as is claimed in claim 1 and is shown in Figures 1 and 2).

It could also be seen in Figure 1 that there were no protrusions on the third layer. There was a clear and unambiguous basis in the first part of the description (original pages 1 to 10, in particular text passage (e)) and in Figures 1 and 2 that the protrusions were located on each of the first and second layers. The following additional part (f) was cited for support (original page 12, penultimate paragraph):

(f) In Figure 2, a view of an array of hexagonal interconnected apparatuses 1 of the invention is depicted, showing how the array can appear in practice, with the first and second layers 12 and 20 clearly shown overlaying the third layer (not shown) and having the three protrusions 22 at alternate edges of the first layer 20 for engagement with the adjacent apparatuses in the array. Central in the apparatus is the connecting member 10, which is equipped with an LED light 28.

- 2.5 The board agrees with the appellant that part (e) expands the general definition of the invention in part (c) to include further alternative options, one of which is the alternative option defined in claim 1.

ad (c) and (e)

- 2.6 Part (e) discloses feature (D) in the context of the **general disclosure of the invention** (original page 1, last paragraph to original page 10, first paragraph, here referred to as "part I"), i.e. in the context of part (c). In particular, parts (c) and (e) are each in part I of the application which discloses various aspects of the invention, most of which may be combined

(e.g. (c) in conjunction with (e) in claim 1) or used as basis for amending the claims. The board notes that parts (c) and (e) in conjunction disclose the invention in general terms and not in the specific context of the detailed description of the embodiments. Consequently, part I is consistent with the claims.

ad (a) and (b)

2.7 Original claim 1 contradicts the description (in particular part I), since protrusions in the third layer are not disclosed anywhere else. Original claim 1 was therefore rightly corrected and replaced by present claim 1, avoiding contradictions with the description and rendering the claims clear (Article 84 EPC).

2.8 Protrusions in the third layer were part of the original claims, but as discussed above, this feature can be deleted based on parts (c) and (e).

ad (d) and (f)

2.9 Part (f) is part of the **detailed description of the embodiments** (referred to as "part II": original page 10, second paragraph to original page 13, penultimate paragraph, Figures 1 and 2 and their description) and again confirms the combination of features (i) to (iii) in the specific context of the embodiments. In particular, all the embodiments shown in the figures have protrusions in the first and second layers, but not in the third layer.

2.10 The fourth layer is the power grid and is not explicitly mentioned again in the embodiments. Since the embodiments are explicitly specific versions of the invention (see original page 10, second paragraph: "The

invention will now be described further by way of example with reference to the following figures ...") that is disclosed in part I, the fourth layer no longer needs to be explicitly mentioned or shown in the figures. Consequently, the embodiments (part II) are consistent with the general disclosure of the invention (part I) and the present set of claims.

2.11 Consequently, unlike the examining division, the board holds that the description pages 1 to 10, in particular pages 1 to 6, form a coherent part of the description (part I) and that parts (c) and (e) in combination disclose the combination of features (i) to (iii) as an optional alternative to the general presentation in the paragraph bridging original pages 1 and 2. The board notes that the description has been adapted (amended description pages 2, 6, 8, and 12 filed with the letter dated 24 April 2019) in line with present claim 1 so that the protrusions in the second layer in the text passage (e) are no longer referred to as optional but as part of the invention. Consequently, the present claims are also supported by the description and are not in contradiction to it (Article 84 EPC).

3. **In summary**, the board concludes that the subject-matter of claim 1 is disclosed in the application as originally filed and the application meets the requirements of Article 123(2) EPC. The claims are clear and supported by the description (Article 84 EPC). Given that examining division did not decide on the remaining substantive patentability requirements, the board considers it appropriate to remit the case to the examining division for further prosecution (Article 111(1) EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the examining division for further prosecution.

The Registrar:

The Chairman:



S. Sánchez Chiquero

T. Häusser

Decision electronically authenticated