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Datasheet for the decision
of 8 April 2020

Case Number: T 2310/15 - 3.4.01

Application Number: 09793619.9

Publication Number: 2356879

IPC: H05B6/68, A61M1/36

Language of the proceedings: EN

Title of invention:
DEVICE AND METHOD FOR CONTROLLING ENERGY

Patent Proprietor:
Goji Limited

Opponents:
Gross, Felix
Whirlpool Europe Srl

Headword:
Controlled energy distribution / GOJI Ltd.

Relevant legal provisions:
EPC Art. 100(a), 54, 56

Keyword:
Novelty - (no)
Inventive step - (yes)
Case Number: T 2310/15 - 3.4.01

DECISION
of Technical Board of Appeal 3.4.01
of 8 April 2020

Appellant: Goji Limited
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Decision under appeal: Decision of the Opposition Division of the European Patent Office posted on 8 October 2015 revoking European patent No. 2356879 pursuant to Article 101(3)(b) EPC.
Composition of the Board:

Chairman: P. Scriven
Members: P. Fontenay
          D. Rogers
Summary of Facts and Submissions

I. The patentee's appeal is against the decision of the Opposition Division to revoke European patent EP-B-2 356 879.

II. Two oppositions were filed against the patent. The opposition of Opponent I was on the grounds of Article 100(a) EPC (lack of novelty and lack of inventive step), Article 100(b) EPC (lack of a sufficient disclosure) and Article 100(c) EPC (added subject-matter). The opposition of Opponent II was solely on the grounds of Article 100(a) EPC.

III. While the Opposition Division rejected the grounds for opposition of lack of novelty, insufficiency of disclosure, and added subject-matter, it agreed with Opponent II, finding that the subject-matter of claims 1 and 11 lacked inventive step in view of document


combined with common general knowledge or, alternatively, with document


IV. The appellant (patentee) requested that the appealed decision be set aside and that the patent be maintained as granted (that is, that the oppositions be rejected).
V. In its statement of grounds, the appellant submitted that the analysis relied upon by the Opposition Division was based on a misunderstanding of the teaching provided by E2. By suggesting dissipating the same power in the load for each frequency band considered, E2 led away from the recited step of setting a desired energy to be dissipated in the load for each frequency band. This argumentation was later further developed in reaction to Opponent II's response to the statement of grounds.

VI. In its response to the statement of grounds, Opponent I indicated that he did not intend to comment.

VII. In its response to the statement of grounds, opponent II limited itself to contesting the patentee's view with regard to inventive step. The findings of the opposition Division with regard to the other grounds for opposition (Articles 100(b) and 100(c) EPC) were not addressed. Similarly, opponent II did not comment on the other objections under Article 100(a) EPC that had been raised during the opposition proceedings.

VIII. Claim 1 of the appellant's sole request, i.e. of the patent as granted, reads:

\[
\text{A method of irradiating a load (12), the method comprising: selecting a plurality of different frequencies;}
\]
selecting respective durations during which corresponding said plurality of frequencies are transmitted; and
irradiating a load (12) with energy at said plurality of different frequencies in said respective durations;
the method characterised by:
obtaining dissipation information from said load (12);
setting desired energy to be dissipated in the load (12) at each of said plurality of frequencies according to said dissipation information; and
selecting said respective durations according to said desired energy.

IX. Claim 11, as granted, reads:

An apparatus (10) for irradiating a load (12), the apparatus comprising:
at least one energy feed (14) for transmitting energy to a cavity (11) for resonating in the presence of said load (12) in a plurality of frequencies; and
a controller (17) for selecting respective durations during which corresponding frequencies are transmitted;
the apparatus characterised in that said controller (17) is configured to obtain dissipation information from the load (12), to set desired energy to be dissipated in the load (12) at said plurality of different frequencies according to said dissipation information, and to select said durations according to said desired energy.
X. The parties did not request oral proceedings.

Reasons for the Decision

Novelty - Article 54 and 100(a) EPC

1. Document E2 discloses a heater selectively applying energy at frequencies which are expected to be absorbed by a load, thus increasing energy efficiency. Power dissipation information is obtained from reflected power of a load irradiated with a frequency sweep (cf. page 44, lines 1-8). Different powers are emitted at each frequency according to the dissipation information previously obtained. According to the preferred embodiment of the invention, upon which Opponent II relied, the emitted powers are determined in order to dissipate the same power in the load in each frequency band (cf. page 45, line 31 to page 46, line 2 and page 46, lines 22-27).

2. In the context of this embodiment in E2, the dissipation information obtained serves the purpose of defining the power to be emitted for each frequency band. The amount of power is determined so as to fulfil the requirement, set by the inventor, of having the same dissipated power in the load for each band (cf. passage bridging pages 45, 46). This may be equated with a "desired power to be dissipated in the load" at each of said plurality of frequency bands. The fact that it is the same for all said bands does not affect this finding.

3. Relying on this specific embodiment, the Opposition Division concluded that E2 discloses a step of setting desired power to be dissipated in the load at each of
said plurality of frequencies according to said dissipation information (with emphasis by the Board - cf. section 3.5.2.3 of the appealed decision).

4. This particular aspect of the impugned decision is not convincing. As stressed by the appellant, the desired power to be dissipated in the load, in this embodiment of E2, does not appear to depend on the dissipation information.

5. The method and system disclosed in E2 rely on the control of the amount of power to be emitted. This is achieved by means of a feedback loop which relies, firstly, on said dissipation information and, secondly, on a predetermined reference value for the power dissipated in the load, which is not, as such, a function of the load dissipation for the frequency band considered.

6. The method of claim 1 differs, thus, from the teaching of the relevant embodiment of E2, firstly, in that it comprises a step of setting desired energy to be dissipated in the load at each of said plurality of frequencies according to said dissipation information.

7. E2 consequently further fails to disclose the step of selecting the respective durations during which corresponding plurality of frequencies are transmitted according to the desired energy. In effect, an indication that the relevant embodiment of E2 somehow relies on energy as the reference parameter for controlling the irradiation of the load is simply missing in this preferred embodiment.

8. The apparatus of claim 11 differs from the apparatus of said preferred embodiment in E2 by the presence of a
controller designed to perform the corresponding functionalities.

9. The claimed method and apparatus are thus new in view of E2.

Inventive step (Article 56 EPC)

10. The Board concurs with the parties, and the Opposition Division, that the preferred embodiment of E2 discussed above constitutes a suitable starting point when deciding on the inventive merits of the claimed invention.

11. Taking account of the fact that energy is the integral of power over time, there is no indication in the preferred embodiment of E2 of controlling the timing of irradiation in order to obtain a predetermined amount of energy in each of the various frequency bands. By focusing on the need to achieve a constant power dissipation for all frequency bands, the embodiment in E2 on which Opponent II relies appears to lead away from a process in which various energy levels would be dissipated depending on the band considered. A constant power over the bands would then be meaningless.

12. Various passage in E2 suggest, as an alternative, the adaptation of irradiation parameters (time duration, power) associated with the different feeds in order to generate the same or different energy levels in each feed (c.f., for example, page 12, lines 15 - 21 and page 47, lines 26 - 31). This does suggest a degree of flexibility, but do not appear to be sufficiently concrete with regard to the relationship which should exist between said parameters and dissipation.
information previously obtained from a sweeping irradiation of the load.

13. E2 also explicitly envisages a possible non-uniform heating within the load (c.f. the "Summary of the invention" on page 2, lines 26 - 31; page 3, lines 26 - 31; page 4, lines 7 - 20). The opponents, however, did not elaborate on whether or how this could be put into practise in a process and system that relies on constant absorption of power by the load over frequency. In the absence of such argument, the Board is not persuaded that it would have been obvious to adapt the embodiment on which the opponents relied to allow different duration of irradiation for different frequency bands.

14. The subject-matter of claim 1 is, therefore, inventive in view of document E2. The same applies to claim 11, which defines the corresponding apparatus.
Order

For these reasons it is decided that:

The decision under appeal is set aside.

The opposition is rejected.

The Registrar: The Chairman:

D. Meyfarth P. Scriven

Decision electronically authenticated