UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/457,156	06/02/2009	Eran Ben-Shmuel	11254.0032-02000	2886

22852 7590 03/28/2018

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP
901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER
CALVETTI, FREDERICK F

ART UNIT	PAPER NUMBER
3742	

NOTIFICATION DATE	DELIVERY MODE
03/28/2018	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

regional-desk@finnegan.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ERAN BEN-SHMUEL, ALEXANDER BILCHINSKY, UDI DAMARI, OMER EINAV, BENNY ROUSSO, and SHLOMO BEN-HAIM

Appeal 2016-002601
Application 12/457,156
Technology Center 3700

Before JOHN C. KERINS, KEN B. BARRETT, and ARTHUR M. PESLAK, *Administrative Patent Judges*.

KERINS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Eran Ben-Shmuel et al. (Appellants) seek our review under 35 U.S.C. § 134 of the final rejection of claims 1–9, 21, 22, and 25–30. We have jurisdiction under 35 U.S.C. § 6(b). An oral hearing was conducted on January 4, 2018, with Darren M. Jiron, Esq., appearing on behalf of Appellants.

We REVERSE.

THE INVENTION

Appellants' invention is directed to a heater for dielectrically heating a load in a cavity using UHF or microwave energy. Claim 1, reproduced below, is illustrative:

> 1. A heater for dielectrically heating a load positioned in a cavity using UHF or microwave energy, the heater comprising:
>
> an UHF or microwave heating element for feeding UHF or microwave energy into the cavity;
>
> a memory storing a computer executable program; and
>
> a controller device communicatively connected to the memory, wherein when the computer executable program is executed by the controller device, the controller device performs operations comprising:
>
> selecting between first and second heating modes;
>
> identifying at least one absorption peak at a corresponding peak frequency; and
>
> for each identified absorption peak:
>
> determining a frequency band associated with the identified absorption peak, the frequency band including the peak frequency corresponding to the identified absorption peak, wherein the frequency band is determined to be broader when the first heating mode is selected than when the second heating mode is selected; and
>
> controlling the UHF or microwave heating element to heat the load by feeding the cavity with UHF or microwave energy at frequencies of the determined frequency band.

THE REJECTIONS

The Examiner rejects:

(i) claims 1–9, 21, 22, and 25–30 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement;

(ii) claims 1–9, 21, 22, and 25–30 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement;

(iii) claims 1–9, 21, 22, and 25–30 under 35 U.S.C. § 112, second paragraph, as being indefinite;

(iv) claims 1–9, 21, 22, and 25–30 under 35 U.S.C. § 101 as not being directed to patent eligible subject matter;[1]

(v) claims 1, 2, 6–9, 21, 22, and 25–28 under 35 U.S.C. § 103(a) as being unpatentable over Fagrell (US 2002/0175163 A1, published Nov. 28, 2002) in view of Johnson (US 5,521,360, issued May 28, 1996), and any one of Lagunas-Solar (US 6,638,475 B1, issued Oct. 28, 2003), Asmussen (US 5,008,506, issued Apr. 16, 1991), or Fathi (US 5,648,038, issued July 15, 1997);

(vi) claims 3–5 under 35 U.S.C. § 103(a) as being unpatentable over Fagrell in view of Johnson, any of Lagunas-Solar, Asmussen, or Fathi, and Clothier (US 6,953,919 B2, issued Oct. 11, 2005);

(vii) claims 29 and 30 under 35 U.S.C. § 103(a) as being unpatentable over Fagrell in view of Johnson, any of Lagunas-Solar, Asmussen, or Fathi, Bible (US 5,961,871, issued Oct. 5, 1999), and Bible (US 5,321,222, issued June 14, 1994);

---

[1] This rejection is presented in the Final Action following the rejections under §§ 102 and 103, but will be addressed out of that order herein.

(viii) claims 1–9, 21, 22, and 25–30 under 35 U.S.C. § 102(b) as being anticipated by Johnson; and

(ix) claims 1–9, 21, 22, and 25–30 (provisionally) on the nonstatutory ground of obviousness-type double patenting over: claims 1–19 of Application No. 13/729,678; claims 47–88 of Application No. 13/645,625; claims 1–16 of Application No. 13/464,754; claims 27–37 and 39–50 of Application No. 12/907,663; claims 67–82 of Application No. 12/906,604; and claims 23–50 of Application No. 12/563,182.[2]

ANALYSIS

Claims 1–9, 21, 22, and 25–30--Written Description

Claim 1 is the only independent claim presented on appeal. The Examiner finds that the claims, including claim 1, involve "pure functional claiming of any and every controller having a computer executable program having instructions to implement an idea." Final Act. 4. The Examiner specifically identifies portions of the Specification that provide "support for the amended claim language," yet maintains that "[t]hese citations do not obviate absence of description." *Id.* at 4–5. The Examiner finds problematic that "[t]here is no particular structure for the controller or even specific software for its use," and opines that "[t]here is no written description in the specification to support [the] broad scope" of the claims. *Id.* at 5.

Appellants maintain that controlling an electrical device of the type disclosed and claimed would have been within the skill set of those of ordinary skill in the art, and that it would not have been necessary to include

[2] This ground of rejection is presented last here, whereas it was presented first in the Final Action.

a description of the detailed structure of the controller device in order to demonstrate that the inventors had possession of the claimed invention at the time the application was filed. Appeal Br. 11. Appellants also argue that functional recitations do not preclude the Specification from satisfying the written description requirement, in that "[t]he test for sufficiency is whether 'the specification recites sufficient materials to accomplish that function.'" *Id.* at 12 (quoting *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1352 (Fed. Cir. 2010)). Appellants point to disclosures of system block diagrams, flow charts, heating cavities, and antennae as providing disclosure evidencing possession of the claimed subject matter. *Id.*

Appellants have the better position. We do not view claim 1 as encompassing any and every controller having a computer executable program, but rather a controller having such a program that performs the claimed operations or functions. Appellants' Specification evidences that they were in possession of such a device. The rejection is not sustained.

Claims 1–9, 21, 22, and 25–30--Enablement

The Examiner relies on the same analysis as presented for the written description rejection, stating that the Specification does not teach how to use any and every controller and operation, and that the claims are "not enabled . . . for such broad scope." Final Act. 5. As noted above, we disagree with the Examiner as to the scope of claim 1. Further, the Examiner presents no findings that could lead to a conclusion that an undue amount of experimentation would be required in order to make and use the invention as defined in claim 1. *In re Strahilevitz*, 668 F.2d 1229 (CCPA 1982); *see also*

In re Wands, 858 F.2d 731, 737 (Fed. Cir. 1988) (setting forth factors for determining whether or not undue experimentation is necessary).

The rejection is not sustained.

Claims 1–9, 21, 22, and 25–30—Indefiniteness

The Examiner relies on the same analysis as presented for the written description rejection, discussed above, and maintains that the alleged pure functional claiming of a controller renders unclear the scope of the claims. Final Act. 6. The Examiner questions whether the claims are directed to an apparatus or method. *Id.*

Claim 1 is drawn to an apparatus or system configured to operate in a particular manner set forth in the claim. We fail to see the lack of clarity asserted by the Examiner. The rejection is not sustained.

Claims 1–9, 21, 22, and 25–30--Patent Eligible Subject Matter

The Examiner maintains that the claims are directed to an abstract idea. Final Act. 17. The Examiner describes the abstract idea as "relat[ing] to a computer device performing operations comprising selecting . . ., identifying . . ., determining . . ., and controlling." *Id.* The Examiner additionally appears to base the rejection on the claims being directed to a phenomenon or law of nature "relat[ing] to frequency/absorption/energy." *Id.* The Examiner further maintains that "[t]he generic computer disclosed in the specification and recited in the claims adds nothing of substance to the idea." *Id.*

The Examiner's rejection fails to address the fact that the claims recite a heater having a heating element, together with a controller specifically configured to perform the several recited steps or functions for controlling the heater. These constitute physical structure to which the claims are

directed, and the Examiner has not adequately established how, given this structure, the claims can legitimately be said to be "directed to" a non-statutory class of invention such as an abstract idea or naturally occurring phenomenon or law of nature.

The rejection is not sustained.

Claims 1, 2, 6–9, 21, 22, and 25–28--Obviousness--Fagrell/Johnson/ Lagunas-Solar/Asmussen

Appellants appropriately criticize the rejection as "point[ing] generally to a multitude of passages and figures in *Fagrell*," and "provid[ing] no explanation of how any of these cited portions of *Fagrell*" correspond to the limitations found in claim 1. Appeal Br. 17. Appellants continue by pointing out how and why the numerous paragraphs cited to by the Examiner do not disclose or suggest various claim limitations. *Id.* at 17–21.

We find here that the rejection "'is so uninformative that it prevents [Appellants] from recognizing and seeking to counter the grounds for rejection.'" *In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011) (quoting *Chester v. Miller*, 906 F.2d 1574, 1578 (Fed. Cir. 1990). In particular, in addressing the claim limitation requiring the controller to carry out determining frequency bands for first and second heating modes, with the frequency band being broader for the first heating mode than for the second heating mode, the Examiner identifies more than 50 paragraphs scattered throughout the Fagrell reference as evidencing that this limitation is disclosed in Fagrell. Final Act. 8. The Examiner provides no explanation or elaboration as to what specifically within those fifty-some paragraphs is regarded as a disclosure of the claim limitation at issue, and our review of

the cited paragraphs does not lead to any readily apparent correspondence between what is discussed therein and the claim language.

The rejection of claims 1, 2, 6–9, 21, 22, and 25–28 is therefore not sustained.

Claims 3–5--Obviousness--Fagrell/Johnson/Lagunas-Solar/ Asmussen/Clothier

Claims 29 and 30--Obviousness--Fagrell/Johnson/Lagunas-Solar Asmussen/Bible/Bible

These rejections suffer from the same deficiency as does the rejection discussed in the preceding section. The rejections are not sustained for the same reasons presented above.

Claims 1–9, 21, 22, and 25–30--Anticipation—Johnson

The Examiner finds that Johnson discloses all limitations set forth in claim 1, and cites to column 13, line 20, through column 15, line 67, as disclosing the recited operations that the claimed controller must perform. Final Act. 16. The Examiner invites particular attention to column 13, line 50, to column 14, line 5, as being especially pertinent. *Id.*

As argued by Appellants, Johnson does not appear to disclose selecting between two heating modes and having frequency bands of different breadths for the two heating modes, as required by claim 1. Appeal Br. 35–36. In further explaining the basis for the rejection, the Examiner appears to not give those limitations any patentable weight. Ans. 28. This position is not tenable.

The anticipation rejection of claim 1 and its dependent claims is therefore not sustained.

Claims 1–9, 21, 22, and 25–30--Obviousness-type Double Patenting

Appellants request that the provisional rejections based on obviousness-type double patenting over various identified claims in Application Nos. 13/729,678, 13/645,625, 13/464,754, 12/907,663; 12/906,604, and 12/563,182, be held in abeyance until allowable subject matter is identified in the claims on appeal. Appeal Br. 9. A search of USPTO records has revealed that Application No. 13/729,678 was abandoned, effective July 7, 2017, and that the remaining five applications have had patents issue therefrom. The Examiner may wish to determine at this stage whether any claims as issued in these patents present obviousness-type double patenting issues with the claims on appeal. At least because one application underlying the provision rejection has been abandoned, we do not reach the merits of this rejection.

DECISION

The Examiner's rejections of claims 1–9, 21, 22, and 25–30 are reversed.

REVERSED