

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

EURO-PRO OPERATING LLC,
Petitioner,

v.

ACORNE ENTERPRISES, LLC,
Patent Owner.

Case IPR2014-00351
Patent 6,515,262 B1

Before MICHAEL J. FITZPATRICK, HYUN J. JUNG and
SCOTT A. DANIELS, *Administrative Patent Judges*.

DANIELS, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

A. Background

Euro-Pro Operating LLC (“Petitioner”) filed a corrected Petition to institute an *inter partes* review of claims 1, 13, and 14 of U.S. Patent No. 6,515,262 B1 (“the ’262 patent”). Paper 8 (“Pet.”). Acorne Enterprises, LLC (“Patent Owner”) waived its preliminary response. Paper 18. We instituted trial for claims 1, 13, and 14 of the ’262 patent on certain grounds of unpatentability asserted in the Petition. Paper 19 (“Decision to Institute” or “Inst. Dec.”).

After institution of trial, on October 22, 2014, Patent Owner filed a corrected Patent Owner Response (“PO Resp.” Paper 29), along with a Motion to Amend the claims in this proceeding. (“Mot. to Amend” Paper 28). Subsequently, Petitioner filed a Reply (“Reply” Paper 31) on December 23, 2014 and an Opposition (“Opp. to Amend” Paper 32) the same day, and Patent Owner filed a Reply (“Reply Opp. to Amend” Paper 34) to the Opposition.

A hearing was not requested in this proceeding. *See* 37 C.F.R. § 42.73

We have jurisdiction under 35 U.S.C. § 6(c). This final written decision is issued pursuant to 35 U.S.C. § 318(a).

Petitioner has shown by a preponderance of the evidence that claims 1, 13, and 14 of the ’262 patent are unpatentable.

B. The ’262 Patent

The ’262 patent (Ex. 1001), titled “Deep Well Cooker with Dual Heating Elements,” generally relates to an electric cooking appliance, known as a deep well cooker, for preparing and serving hot foods. Ex. 1001, 1:6–30. Figure 1B of the ’262 patent is reproduced below:

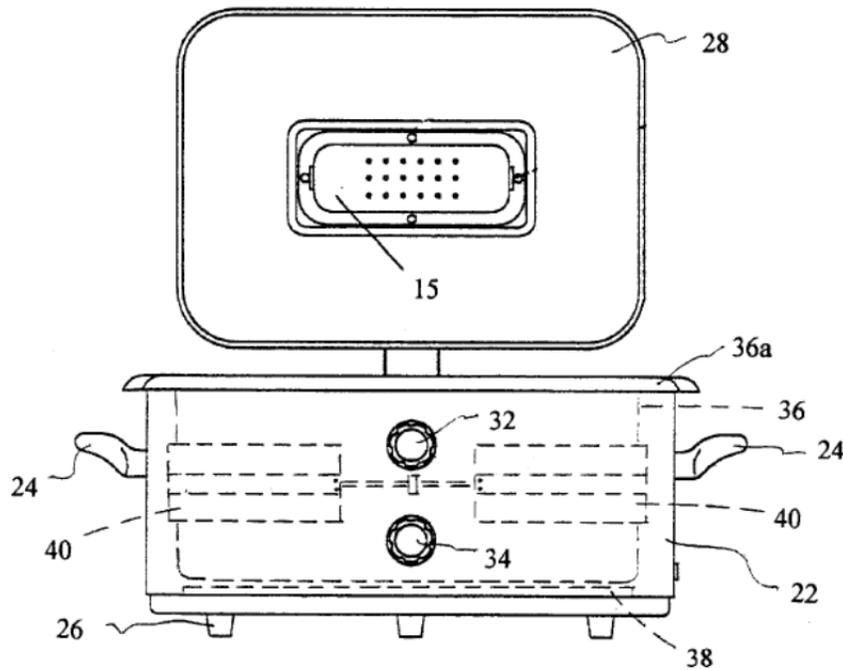


FIG. 1B

Figure 1B depicts a front view of deep well cooker 10 (shown in the figure without a reference designator) in an open condition. Ex. 1001, 2:44–46. The cooker includes housing 22 and lid 28. *Id.* at 2:66–3:3. As depicted by Figure 1B of the '262 patent, above, the cooker is shown with lid 28 in an open position, and with deep well member 36, bottom heating element 38, and wrap-around heating element 40 represented by dashed lines. Food is heated in deep well member 36 within housing 22. *Id.* at 3:12–14. The deep well member can be made of stainless or enameled steel, aluminum, or cast iron and, according to the '262 patent, is heated by the bottom heating element and the wrap-around heating element. *Id.* at 3:15–18, 46–53.

Shown on the front of cooker 10 are temperature control switch 32 and multifunction control switch 34, which regulate heating elements 38, 40.

Id. at 3:34–41. According to the '262 patent, the temperature control switch is electrically interconnected to the multi-function control switch to pass current to either the bottom heater, the wrap-around heater, or both. *Id.* at 3:65–66. In this way, the bottom and wrap-around heaters can be energized individually or in combination, depending upon the desired cooking mode. *Id.* at 3:66–4:1.

C. Illustrative Claims

Of the challenged claims, only claim 1 is independent. Claims 13 and 14 depend from claim 1. Claim 1 illustrates the claimed subject matter and is reproduced below:

1. A deep well cooker comprising:
an outer housing having a lid member;
a deep well member residing within said housing, said
 deep well member having a bottom surface with integrally
 formed sidewalls and an open top;
heating means including a bottom heating element and a wrap-
 around heating element radially disposed about said deep
 well member and positioned intermediate said housing and
 said deep well member;
temperature controlling means electrically interconnected to
 said heating means for regulating the temperature of said
 heating elements; and
function controlling means electrically interconnected to said
 temperature controlling means and to said heating elements
 enabling said bottom heating element and said wrap-around
 heating element to be selectively energized to provide
 variable cooking modes.

D. The Prior Art References Supporting Alleged Unpatentability

Petitioner relies upon the following prior art references:

Hlava et al., US 6,274,847 B1 (Aug. 14, 2001) (“Hlava,” Ex. 1003);

Nachumsohn, US 2,187,888 (Jan. 23, 1940) (“Nachumsohn,” Ex. 1004);

Vallorani, US 2,778,914 (Jan. 22, 1957) (“Vallorani,” Ex. 1005);

Takikawa et al., US 5,512,733 (Apr. 30, 1996) (“Takikawa,” Ex. 1006);

Henke, US 4,024,377 (May 17, 1977) (“Henke,” Ex. 1007); and

Jepson et al., US 3,393,295 (July 16, 1968) (“Jepson,” Ex. 1008).

E. The Instituted Grounds of Unpatentability

Reference(s)	Basis	Claims challenged
Hlava and applicant admitted prior art	§ 103(a)	1, 13, and 14
Hlava and Nachumsohn	§ 103(a)	1, 13, and 14
Nachumsohn	§ 103(a)	1, 13, and 14
Nachumsohn and Vallorani	§ 103(a)	1, 13, and 14

Petitioner supports its challenge with a Declaration of Mr. Robert A. Sherwood, BSEE, MSEE. (“Sherwood Decl.,” Ex. 1017).

II. CLAIM CONSTRUCTION

A. *Legal Standard*

Consistent with the statute and the legislative history of the Leahy-Smith America Invents Act (“AIA”), Public Law 112-29, 125 Stat. 284 (September 16, 2011), the Board will interpret claims of an unexpired patent

using the broadest reasonable construction in light of the specification of the patent. *See* Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012); 37 C.F.R. § 42.100(b). Under the broadest reasonable construction standard, claims are to be given their broadest reasonable interpretation consistent with the specification, and the claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). Also, we must be careful not to read a particular embodiment appearing in the written description into the claim, if the claim language is broader than the embodiment. *See In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) (“[L]imitations are not to be read into the claims from the specification.”).

B. Claim Construction in Decision to Institute

The table below summarizes the claim constructions from our Decision to Institute, in which we determined that the following claim terms invoke section 112, ¶ 6 because they specify a function but no structure for performing that function. Inst. Dec. 7.

Construed Term(s)	Claim Construction
Temperature controlling means	We determined the function of this means-plus-function term to be “regulating the temperature of said heating elements,” and the structure to include “a temperature control switch as shown in Figures 1A–3, and its equivalents, which can be manipulated from outside the housing of the deep well cooker.” Inst. Dec. 8–9.

Construed Term(s)	Claim Construction
Function controlling means	We determined the function for this means-plus-function limitation to be “enabling the bottom heating element and the wrap-around heating element to be selectively energized to provide variable cooking modes,” and the corresponding structure we determined to be “the device, and its equivalents, as reflected in Figures 1A–3 of the ’262 patent mounted in the outer housing of the deep well cooker and manipulated separately from the temperature control means by a user, and as represented in the specification, can pass current individually to either the bottom heater or wrap-around heater, or in combination to both.” Inst. Dec. 9–10.

C. Overview of the Parties’ Positions

Patent Owner does not dispute the Board’s construction of “temperature controlling means,” but asserts that “function controlling means” should be understood to include “a conventional electro-mechanical switch or, alternatively, that the selection of the bottom heater 38 and the wrap-around heater 40 may be accomplished by digital or other electronic circuits.” PO Resp. 13 (citing US 6,624,392, col. 4, ll. 27–34).¹ Patent Owner apparently agrees in principle with the Board’s construction, but asserts the construction should include alternative structures for “function controlling means” such as “digital or other electronic circuits” as described

¹ Patent Owner here refers to the ’392 patent at issue in IPR 2014–00352. The specification in the ’262 patent at issue in this proceeding, which issued from the parent application to the ’392 patent, recites exactly the same disclosure at col. 4, ll. 6–12.

in the specification of the '262 patent. *Id.* As shown above, we determined the corresponding structure to be

the device, and its equivalents, as reflected in Figures 1A–3 of the '262 patent mounted in the outer housing of the deep well cooker and manipulated separately from the temperature control means by a user, and as represented in the specification, can pass current individually to either the bottom heater or wrap-around heater, or in combination to both.

Inst. Dec. 9–11 (emphasis added). We are not convinced by Patent Owner's assertions of any reason to change our claim construction. To the extent that these alternatives are described in the specification of the '262 patent or are equivalents to the electro-mechanical structure and circuit shown in Figure 1A–3, such alternatives are encompassed within the proper claim construction. *See* 35 U.S.C. § 112, ¶ 6.

III. ANALYSIS

A. Alleged Obviousness of Claims 1, 13, and 14 by Hlava and Admitted Prior Art

For the reasons given below, despite the arguments provided in the Patent Owner's Response, Petitioner has shown, by a preponderance of the evidence, that each of claims 1, 13, and 14 is unpatentable in view of Hlava and the admitted prior art.

1. Hlava

In conjunction with Figures 1–3, Hlava discloses cooking apparatus 10 having housing assembly 12, metallic cooking insert 14 and stoneware or ceramic cooking insert 16, in which food is contained. Ex. 1003, 3:53–56. The inserts are removable, and lid 18 is used to cover food contained in the cooker. *Id.* at 3:60–65. To heat the cooking apparatus, heating device 30 is

provided extending around the circumference of an inner surface of the housing assembly, and “preferably includes a plurality of resistance type heating elements formed in a band wrapping around liner side wall 34.” *Id.* at 4:13–15. Figure 5 of Hlava is reproduced below:

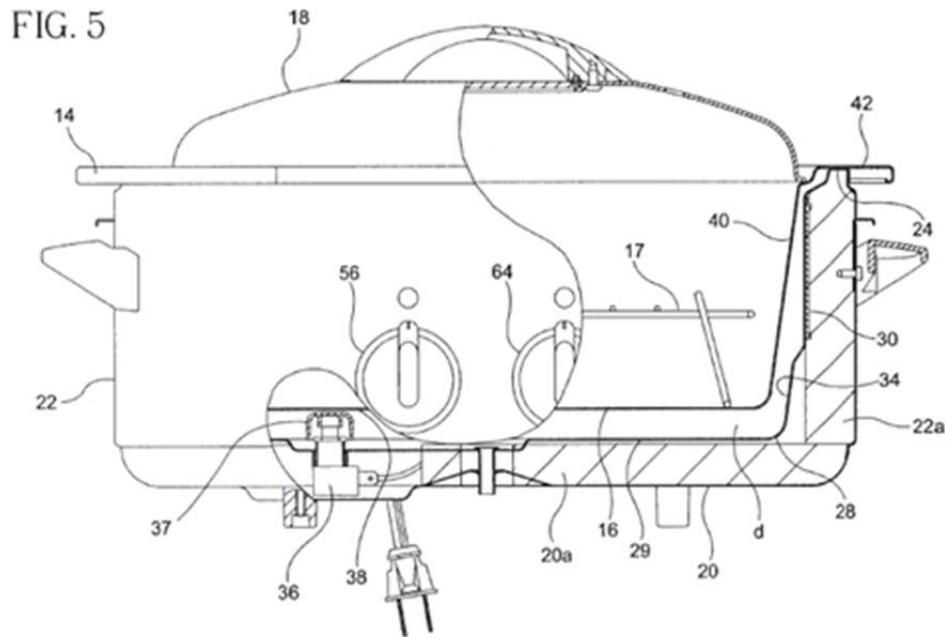


Figure 5 depicts a front view of the cooking apparatus. *Id.* at 3:27–29. The cooking apparatus includes housing 22 and lid 18. Heating is controlled via user actuated selector switch 52 with dial 56 for selecting off, low, high, and roast cooking modes. *Id.* at 6:13–14, 23–25. Once the user selects a desired cooking mode via dial 56, circuit 50 supplies current to one of heating elements 30a', 30b', and 30c', corresponding to the selected low, high, and roast modes. *Id.* at 6:18–21, Figs. 7–9. Thermostat 58 having user-adjustable dial 64 is also provided in the circuit. *Id.* at 6:46–49.

Temperature control circuit 50 is shown more specifically, for example, in Figure 7. In one embodiment the thermostat controls only heating element 30c to regulate temperature in the roasting mode. *Id.* at

6:34–40. In another embodiment shown in Figure 9, the thermostat is positioned in the circuit between power source 66 and selector switch 52' to regulate the temperature to each heating element 30a', 30b', and 30c'. *Id.* at 7:58–63, 8:26–30.

2. Discussion

i. Claim 1

Petitioner asserts that Hlava discloses each element of claim 1 with the exception of a bottom heating element. Pet. 23–24. For example, Petitioner contends that Hlava's cooker 10 comprises outer housing 12, deep well member 28, sidewall heating elements 30a', 30b', 30c', thermostat 58 for regulating temperature, and controller selector switch 52' for selectively energizing different heating elements. Pet 23–24, 30–32 (citing Ex. 1003, 3:51–55, 3:63–64, 4:11–17, 6:22–32, 6:46–49, 7:48–50, 7:52–55, 7:57–62, Figs. 1A–31B, 5, 9). Petitioner makes several arguments as to why one of ordinary skill in the art would have found it obvious to have modified Hlava's cooker 10 to include the claimed bottom heating element. *Id.* at 24–36. First, Petitioner argues that one of ordinary skill in the art would have found it obvious to *shift* one of the three heating elements (30a', 30b' or 30c'), to the bottom of Hlava's deep well cooker because it was known in the art to provide such bottom heating elements, and to provide “proportioned heat for browning a roast . . . and because roasting is a function for which Hlava's heating element 30c' was designed.” *Id.* at 25 (citing Ex. 1003, 8:17–22). Next, Petitioner argues that it would have been logical to *add* a bottom heating element in Hlava's cooker because in the prior art, as discussed in the Background of the Invention of the '262 patent, bottom heating elements were already used in deep well cookers and Hlava teaches

that other heating profiles, besides the disclosed side heating elements, could be used to “accommodate ‘a wide variety of cooking situations.’” *Id.* at 27 (citing Ex. 1001, 1:12–15, Ex. 1003, 1:53–64).

Petitioner reasons that one of ordinary skill in the art would have shifted one of heating elements 30a', 30b', and 30c', as shown in Figure 9 in Hlava, to the bottom of the deep well cooker, or alternatively added a heating element in the bottom of the cooker, to address the problem of an insufficiently heated portion of the deep well member. Pet. 25–26 (citing Ex. 1001, 1:13–32). Other reasons Petitioner asserts that one of ordinary skill in the art would have provided a bottom heating element include: quicker heating of the cooking apparatus; providing additional cooking functionality, and cooking modes, for different cooking situations; and there are only a finite number of positions for such heating elements. *Id.* at 28–29. Additionally, Petitioner relies on Mr. Sherwood’s testimony as evidence that shifting the largest wattage heating element 30c' of Hlava’s heating elements to the bottom of the deep well cooker, or alternatively, adding a further bottom heating element was mere common sense, requiring “no more than the exercise of ordinary skill, and no change would be needed to Hlava’s selector switch 52’ . . . or to Hlava’s thermostat 58.” *Id.* at 26–30 (citing Ex. 1017 ¶¶ 22, 27–29).

Patent Owner does not provide any declarant testimony, but makes a number of arguments refuting Petitioner’s obviousness contentions and Mr. Sherwood’s testimony. PO Resp. 16–26. First, Patent Owner argues that the absence of a bottom heating element in Hlava “mitigates against a finding of obviousness under 35 U.S.C. 103(a).” *Id.* at 16–17. Patent Owner also asserts that Petitioner has not provided an articulated reasoning

with rational evidentiary underpinnings to support the conclusion of obviousness. *Id.* at 17. Patent Owner further contends that adding a bottom heating element to Hlava “could not be accomplished by one of ordinary skill in the art,” and would require:

- (1) a redesign and remanufacture of the original heating device 30 comprised of only two heating elements 30a, 30b (as modified);
- (2) design and manufacture of the proposed bottom new heating element including the highest wattage heating element 30c and a protective sheath;
- (3) redesign and /or deletion of the insert discriminating sensor 36 from the circuit;
- (4) modification of the original selector switch;
- (5) reconfiguration of the insulation to protect the new heating element, redesigned sensor and the other electrical components in the circuit; and
- (6) laboratory testing to ensure the safety of the modified Hlava device for use by the consumer.

Id. at 18–19. Mr. Sherwood’s opinion, Patent Owner argues, “is an oversimplification and is not within the level of ordinary skill in the art.” *Id.* at 20. Patent Owner also argues that Hlava teaches away from a bottom heating element because Hlava’s “stoneware insert 16 could not resist the localized thermal stresses and cracking that would be caused by the proposed new bottom heating device for the reasons disclosed in Hlava.” *Id.* at 22 (citing Ex. 1003, 4:23–34). Patent Owner further contends that modifying Hlava would destroy the intent, function and purpose of Hlava’s cooking apparatus. *Id.* at 23–26.

Patent Owner’s first argument is not persuasive because the fact that an element of claim 1, namely the bottom heating element, is missing from the Hlava reference is essentially the basis upon which Petitioner has asserted that claim 1 is obvious, as opposed to anticipated. *See* Pet. 24. Moreover, we are aware of no case law, nor has Patent Owner directed us to

any, that all the features of a claim must be found in a prior art reference to properly support an obviousness analysis, or that the absence of a feature in the reference, “mitigates” against a finding of obviousness. A reference need not teach a limitation *in haec verba*. See 35 U.S.C § 103, see also *In re O'Farrell*, 853 F.2d 894, 902 (Fed. Cir. 1988) (claimed invention would have been obvious over single reference or combination of references).

We are also not persuaded by Patent Owner’s contention that Petitioner has failed to present an articulated reasoning with rational underpinnings in support of its obviousness positions. Petitioner has asserted several reasons *why* one of ordinary skill in the art would shift, or add a bottom heating element to Hlava, one reason being that:

it was known in the prior art to use a bottom heating element in addition to a side heating element to facilitate heat distribution in roasting (see Nachumsohn at page 2, column 1, lines 61-71 (discussing properly proportioned heat for browning a roast, which is part of roasting)), and because roasting is a function for which Hlava’s heating element 30c' was designed.

Pet. 25 (citing Ex. 1003, 8:17–22). Petitioner additionally asserts that, although Hlava does not disclose expressly a bottom heating element, Hlava teaches that heating elements for other cooking situations (besides those shown in the reference itself) are contemplated:

“the actual number of elements and wattage values could be varied in order to obtain the desired heating profile” . . . to accommodate “a wide variety of cooking situations,” [] which an extra heating element would have helped to accomplish by expanding the heating profiles of the Hlava cooking apparatus.

Pet. 27–28 (citing Ex. 1003, 1:53–64, 5:48–56). Petitioner has supported its reasoning with evidence from the prior art references such as Hlava and Nachumsohn which teach that it was well known in the art to use bottom

heating elements in deep well cooking apparatus for particular cooking operations. Pet. 25–26 (citing Ex. 1003, 4:11–19, 8:17–22, Fig. 5). Indeed, Petitioner points to the Background section of the '262 patent itself, discussing prior art cooking devices having bottom heating elements. Pet. 7–8, 27 (citing Ex. 1001, 1:12–15, 31–66). Mr. Sherwood testifies persuasively that adding a bottom heating element to Hlava was well within the ordinary skill in the art, and “would have yielded the predictable result of quicker heating of the bottom of Hlava’s cooking insert and/or would have resulted in providing Hlava’s cooking apparatus 10 associated with FIG. 9 with additional cooking modes.” Ex. 1017 ¶¶ 27–29. In view of such reasons and evidence, we are satisfied that Petitioner’s explanations constitute articulated reasoning with rational evidentiary underpinnings sufficient to justify the legal conclusion of obviousness.

Next, Patent Owner argues that Mr. Sherwood’s explanation of how a bottom heating element would be designed in light of Hlava’s disclosure “is an oversimplification and merely conclusory without an underlying factual basis.” PO Resp. 17. Patent Owner presents six enumerated design and manufacturing steps that would have to occur in order to provide such a bottom heating element in Hlava and argues that “such a modification could not be accomplished by a person of ordinary skill in the art.” *Id.* at 19.

Patent Owner’s argument is, however, conclusory and unsupported by anything except attorney argument. Mr. Sherwood testifies that *shifting* heating element 30c' in Hlava would require no more than the exercise of ordinary skill with no change in the electromechanical operation of the selector switch 52' or thermostat 58. Ex. 1017 ¶ 27. Mr. Sherwood also testifies that *adding* a bottom heating element into the circuit, and

connecting the additional “heating element to thermostat 58 and selector switch 52’ of Hlava would have been a straightforward task for someone of ordinary skill in the art, including if one combined the function of sensor 36 into selector switch 52’.” *Id.* ¶ 28. Mr. Sherwood provides further details supporting these conclusions as to specific circuit design and component arrangements in both the *shifting*, and *adding* scenarios, in his Declaration at paragraphs 30–36. Patent Owner has provided no contradictory evidence, or technical reasoning, besides calling Mr. Sherwood’s testimony an “oversimplification.” PO Resp. 17. Patent Owner’s argument is simply not persuasive because it does not explain or provide evidence that the circuits, circuit modifications, and arrangements of electromechanical components asserted by Petitioner and its Declarant would not have been understood, or were beyond the ordinary skill of one in the art, at the time of the alleged invention in the ’262 patent. Moreover, to the extent that the six enumerated steps or conditions would have to take place in order to produce a deep well cooker such as in Hlava having a bottom heating element shifted, or added to it, Patent Owner does not explain why a person of ordinary skill in the art could not accomplish these steps. This is attorney argument that is entitled to no weight. It is well settled by the Federal Circuit that argument of counsel cannot take the place of evidence lacking in the record. *See, e.g., In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997); *In re De Blauwe*, 736 F.2d 699, 705 (Fed. Cir. 1984) (holding that arguments and conclusory statements unsupported by factual evidence are entitled to little probative value).

Patent Owner next argues that Hlava teaches away from a bottom heating element because Hlava’s “stoneware insert 16 could not resist the

localized thermal stresses and cracking that would be caused by the proposed new bottom heating device.” PO Resp. 22 (citing Ex. 1003, 4:23–34). However, teaching away requires a reference to actually criticize, discredit, or otherwise discourage investigation into the claimed solution. *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004). The concern addressed by Hlava is that localized hot spots can compromise stoneware inserts, and therefore sensors are used to discriminate between a stoneware insert, and a metallic insert better suited to higher heat settings. Ex. 1003, 4:23–41. The passages in Hlava referred to by Patent Owner state that “when stoneware insert 16 is placed within housing 12, the maximum heat output permitted by heating device 30 is limited to prevent thermal shock and cracking of the stoneware.” *Id.* at 4:46–49. Patent Owner’s argument fails to explain why one of ordinary skill in the art would have been discouraged from providing a bottom heating element even though Hlava specifically states that metallic inserts were available that could handle higher heat stress. *See id.* at 4:49–52. Indeed, Patent Owner’s argument fails to explain why such a bottom heating element could not be regulated in temperature just like Hlava’s heating device 30, for any type of insert in such a deep well cooking apparatus including a stoneware insert.

Patent Owner’s further contention that Hlava’s insert discriminating sensor 36 somehow dissuades one of skill in the art from using a bottom heating element is also unavailing. *See* PO Resp. 23–25. Even if a bottom heating element shifted, or added to Hlava, theoretically could “result in localized thermal stresses and cracking of the stoneware insert 16,” (*id.* at 25) Hlava expressly teaches how to avoid such a result with sensor 36 to limit the maximum heating temperature of the heating elements. *See* Ex.

1003, 4:46–49. Patent Owner’s conclusory argument, that shifting heating element 30c’ to the bottom of Hlava’s cooker would “destroy the intent, purpose or function” of Hlava’s invention, does not explain persuasively why the temperature of a bottom heating element, either shifted or added to Hlava’s cooker, would not also be limited by operation of sensor 36, for instance when a stoneware insert is used in the cooker. For the above reasons, we conclude that a preponderance of the evidence demonstrates that claim 1 is unpatentable based on Hlava and the admitted prior art.

ii. Claims 13 and 14

Claim 13 depends directly from claim 1, adding the limitation “wherein said housing and said deep well member are oval in configuration.” Claim 14 also depends directly from claim 1 and recites the further limitation “wherein a removable cooking well conforming to the dimensions of said deep well member is provided.” Petitioner persuasively argues that “Hlava’s housing assembly 12 (including base 20 and sidewall 22) and liner 28 are oval in configuration” and “Hlava’s metal insert 14 and stoneware insert 16 each qualifies as a removable cooking well that conforms to the dimensions of Hlava’s liner 28.” Pet. 36 (citing Ex. 1003, Figs. 1A, 1B, 2, 3, 5).

Patent Owner does not address the further limitations added by dependent claims 13 and 14, instead relying exclusively upon its arguments with respect to the Hlava and claim 1. *See* PO Resp. 26. We therefore conclude that a preponderance of the evidence demonstrates that claims 13 and 14 are also unpatentable based on Hlava.

B. Alleged Obviousness of Claims 1, 13, and 14 over Nachumsohn

For the reasons given below Petitioner has shown, by a preponderance of the evidence, that each of claims 1, 13, and 14 is unpatentable over Nachumsohn.

1. Overview of Nachumsohn

Nachumsohn discloses cooking vessel 1 with lid 60 having inner shell 6 supporting oval-shaped roast pan 1, and shell 6 having ribbon-type resistance heating element 8 wrapped around the sidewall of the vessel. Ex. 1004, 2:18–38, Fig. 1. Figure 2 of Nachumsohn is reproduced below:

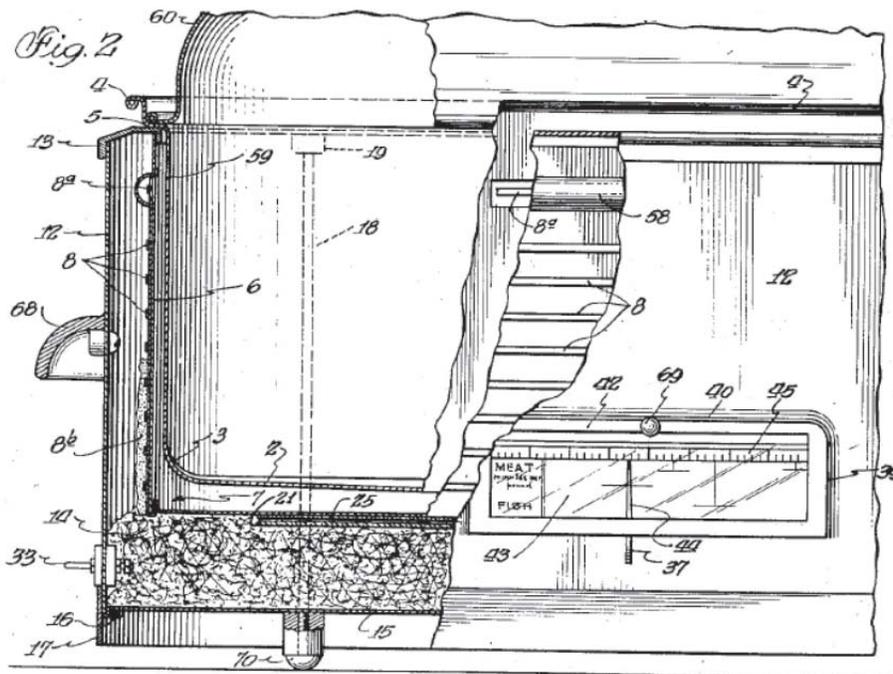


Figure 2 illustrates a cut-away view of Nachumsohn's cooker. The cooker includes side heating element 8, as well as flat resistance heating element 20/21 that is in close thermal relation to the bottom of the shell 6 "to facilitate the distribution of heat to the food in the proper proportions." *Id.* at 3:21–22.

Nachumsohn also describes a thermostat (generally shown by glass window 43) electrically connected between the current supply and the heating elements 8 and 20 for controlling the temperature in the cooking vessel. *Id.* at 3:3–18. The thermostat is controlled by manually adjustable slide 37. *Id.* at 3:3–7, 14–46. A user may move slide 37 along scale 45 to an appropriate desired cooking temperature for food preparation, and the thermostat will maintain the set temperature. *Id.* at 4:52–66.

2. Discussion

i. Claim 1

Petitioner alleges that Nachumsohn discloses all the elements of claim 1 including shell 6 being the deep well member, which is heated by a wrap-around heating element 8 and a bottom heating element 20. Pet. 37. Petitioner contends that thermostat and manually adjustable slide 37 are electrically connected to, and controlling, heating elements 8 and 20. Pet. 38. Petitioner argues that it would have been obvious to an ordinary skilled artisan to include a function controlling means to energize either the wrap-around heating element 8, or alternatively, the bottom heating element 20 individually, or both in combination. Pet. 38 (citing Ex. 1004, 1:15–19). Petitioner argues that one of ordinary skill would provide variable cooking modes with separately energized heating elements because "Nachumsohn expresses the desire to 'provide an improved cooking means capable of

meeting the diversified phases in the general art of cooking, such as baking, searing, scalloping, steaming, stewing, and so forth.” Pet. 38–39 (quoting Ex. 1004, pg. 1 (1:15–19)).

Petitioner relies upon Mr. Sherwood’s testimony that it would have been routine for a person of ordinary skill in the art to have used a double pole triple throw switch or a double pole four throw switch, and electrically connect such a switch to Nachumsohn’s thermostat to energize selectively heating elements 8 and 20 to provide such variable cooking modes or “diversified phases.” Pet. 38–39 (citing Ex. 1017 ¶¶ 22, 36–39).

Patent Owner first argues that Nachumsohn does not disclose a “function controlling means,” as recited in claim 1, to energize selectively the wrap-around and bottom heating elements, and that this “mitigates” against a finding of obviousness. PO Resp. 30–31. This argument is similar to that initially provided with respect to Hlava, and is not persuasive in regards to Nachumsohn for similar reasons as set forth above.

Patent Owner next argues that Nachumsohn teaches away from the claimed “function controlling means” because “the dimensional length of the line wires 33, 34 within the heater circuit is predetermined and calculated to balance the heat generating resistance of the heater circuit and the heating elements 8, 20 are designed to function only in combination.” *Id.* at 32–33. The fact that Nachumsohn’s circuit design discloses the wrap-around and bottom heating elements operating in combination does not explain why, or provide evidence, that the circuit could not be modified by one of skill in the art to include a well-known double pole triple throw switch, or a double pole four throw switch, as Petitioner alleges, to selectively energize these heating elements. Patent Owner provides no opinion testimony to contradict Mr.

Sherwood, or other evidence, as to the level of skill in the art or the technical difficulty of adding such a switch to Nachumsohn's circuit. Patent Owner's conclusory reasoning that Nachumsohn "'teaches away' from the '262 patent by simultaneous operation of both Nachumsohn heating elements 8, 20 to achieve the predetermined cooking result for a given food item," is artificially based on the lack of a "function controlling means" in Nachumsohn and does not criticize, discredit, or otherwise explain why one of ordinary skill in the art would be discouraged from investigating into a circuit design that also provided selectively energizing one or the other of the bottom and wrap-around heating elements. *Id.* at 34; *see also In re Fulton*, 391 F.3d at 1201.

Patent Owner next argues that the person of ordinary skill in the art "has not been able to advance this technology significantly in the seventy-eight years since the issuance of the Nachumsohn patent," and that this fact also "mitigates" against a finding of obviousness. PO Resp. 25. This argument is essentially that Nachumsohn is an old reference, and that apparently, at least until the '262 patent, no one had ever achieved selectively energizing the different heating elements in a deep well cooker. However, it is undisputed by Patent Owner that Nachumsohn is prior art, and not contradicted that at the time of the invention of the '262 patent, one of skill in the art would have known and understood the mechanics and functioning of a double pole triple throw switch, and a double pole four throw switch, to permit such selective energizing. *See Ex. 1017 ¶¶ 25–26, Reply 11.* We are not persuaded by Patent Owner's argument because it provides no evidence that one of ordinary skill in the art would not have been able to modify Nachumsohn's circuit to include known switches to

selectively energize the wrap-around and bottom heating elements. PO Resp. 35. “[W]hen a patent ‘simply arranges old elements with each performing the same function it had been known to perform’ and yields no more than one would expect from such an arrangement, the combination is obvious.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007) (*quoting Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 282 (1976)).

Patent Owner alleges, as it did similarly for Hlava, that Petitioner has not provided an articulated reasoning with rational underpinnings to support obviousness of claim 1 over Nachumsohn. PO Resp. 35–38. Patent Owner specifically contends that simply using a double pole triple (or four) throw switch to selectively energize the wrap-around and bottom heat elements **“cannot reasonably be accomplished by a person of ordinary skill in the art following the teachings of the Nachumsohn invention.”** *Id.* at 38. This argument is not persuasive for at least two reasons. First, a person of ordinary skill in the art is not limited to the teachings of Nachumsohn. One of ordinary skill can use his or her ordinary skill, creativity, and common sense to make the necessary adjustments and further modifications to result in a properly functioning device. *See KSR*, 550 U.S. at 418 (“[T]he [obviousness] analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ”). Second, Petitioner showed that one of ordinary skill in the art would have been motivated to include such a function controlling means “to provide variable cooking modes” that constitute the many different cooking phases, such as, baking, searing, scalloping, stewing discussed in

Nachumsohn. Pet. 38 (citing Ex. 1004, pg. 1, col. 1, ll. 15–19). Petitioner reasoned that these cooking modes could be achieved

by enabling multiple heating elements to be selectively energized, and that electromechanical rotary switches—such as a double pole triple throw switch, which would have enabled Nachumsohn’s bottom and side heating elements to be energized to provide cooking modes via the bottom heating element only, the side heating element only, or both heating elements; and such as a double pole four throw switch, which would have included an “off” setting (where neither heating element is energized) and enabled Nachumsohn’s bottom and side heating elements to be energized to provide cooking modes via the bottom heating element only, the side heating element only, or both heating elements—were known means of accomplishing same.

Pet. 38–39 (citing Ex. 1017 ¶¶ 22, 36–39). Petitioner’s reasoning is supported by evidence from Nachumsohn that different modes of heating and cooking food were contemplated by those of skill in the cooking arts, and that modifying Nachumsohn’s circuit with a double pole triple (or four) throw switch to selectively energize, either, or both heating elements to achieve these modes “would have been routine for one of ordinary skill in the art at the time [the] ’262 patent was filed.” *Id.* Therefore, Petitioner has presented an articulated reasoning with rational underpinning based on Nachumsohn.

Patent Owner also argues that modifying Nachumsohn with a function controlling means would destroy the intent, purpose, and function of the reference. PO Resp. 38. Patent Owner asserts that Nachumsohn provides a temperature control means that is essentially a built in cookbook with cooking charts 53 so that “it is not essential that a user thereof have any knowledge of cooking.” *Id.* (citing Ex. 1004, 4:42–72). With this

functionality, Patent Owner contends that the user merely has to select the food as it is indexed and the temperature is set automatically. *Id.* at 38–39 (citing Nachumsohn 4:18–28). That the cooker itself has a preset temperature that a user selects does not disprove that a known electronic switch could be used to energize either the wrap-around heating element, the bottom heating element, or both in combination and correspondingly recalibrate the individual heating elements to maintain the automatic temperature indexing function. Patent Owner’s argument does not explain why such a circuit arrangement with a double pole triple (or four) throw switch would “destroy” the preset, or automatic functionality of Nachumsohn. Accordingly, we conclude that a preponderance of the evidence shows claim 1 is unpatentable over Nachumsohn.

ii. Claims 13 and 14

Claim 13 depends directly from claim 1, adding the limitation “wherein said housing and said deep well member are oval in configuration.” Claim 14 also depends directly from claim 1 and recites the further limitation “wherein a removable cooking well conforming to the dimensions of said deep well member is provided.” Petitioner persuasively argues that “Nachumsohn’s band 12 and shell 6 is each oval in configuration” and “Nachumsohn’s removable roastpan 1 conforms to the dimensions of shell 6.” Pet. 45–46 (citing Ex. 1004, pg. 2, 1:24–27, 2:68–70, Figs. 1, 3, 6). Patent Owner does not address the further limitations added by dependent claims 13 and 14, instead relying upon its arguments with respect to Nachumsohn and claim 1. *See* PO Resp. 41. We therefore conclude that a preponderance of the evidence demonstrates that claims 13 and 14 are unpatentable based on Nachumsohn.

C. Patent Owner's Objections to Robert Sherwood's Declaration

Patent Owner objects to Robert Sherwood's Declaration testimony on the basis of "information and belief" that (1) Mr. Sherwood did not opine upon the level of ordinary skill in the art in the 2000-2001 time period during which the '262 patent was filed, and (2) that Mr. Sherwood has no legal training and is not qualified as an expert.² PO Resp. 27.

Mr. Sherwood's Declaration describes his professional background and education as an electrical engineer with 50 years of product development and design experience including electric cooking devices. *Id.* ¶¶ 3–14. Mr. Sherwood's testimony is offered by Petitioner, not as expert testimony on the specific legal criteria of obviousness, but as evidence of what one of ordinary skill in the art of electric cooker design would have understood at the time of the filing of the '262 patent. Ex. 1017 ¶ 22. Mr. Sherwood's legal principal statements are informative as to his understanding of obviousness, but not expert testimony as to the specific legal elements and requirements for obviousness. *Id.* ¶¶ 20–21. Mr. Sherwood's opinions and testimony as they relate specifically to the prior art, and his knowledge of one of ordinary skill in the art at the time of filing

² Fed. R. Evid. 702. Testimony by Expert Witnesses

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

of the '262 patent, comport with the legal requirements for obviousness as explained to him by Petitioner's counsel. *See* Ex. 1017 ¶ 20. Obviousness is a mixed question of law and fact and it is not necessary that an expert be a "legal" expert on the question of obviousness. *See Sovereign Software LLC, v. Newegg Inc.*, 705 F.3d 1333, 341(Fed. Cir. 2013) ("precedent does not require 'expert' opinions on matters of law").

Also, we are persuaded that Mr. Sherwood's testimony was undertaken with consideration as to the level of ordinary skill in the art within the 2000-2001 time frame of the alleged invention and filing of the '262 patent. Although Mr. Sherwood did not state, explicitly, what the level of one of ordinary skill in the art would have been at the time of filing of the '262 patent, it is reasonable to determine that a professional engineer having a master's degree in electrical engineering and 50 years of electronic product design experience including extensive experience in the design of cooking appliances and electronic temperature control systems including slow cookers and crockpots, is qualified to testify as to what would have been known by, and obvious to, one of ordinary skill in the art at the time of the filing of the '262 patent. Ex. 1017 ¶ 8. Mr. Sherwood specifically states that his opinions are "based on my personal knowledge, experience, and the materials I have reviewed, as to how someone of ordinary skill in the field of cooking appliances would understand the challenged claims of the '262 patent and the '392 patent as of at least July 2001." *Id.* ¶ 22. We determine that Mr. Sherwood's opinions and testimony are entitled to weight, as they embrace the requirement of one of skill in the art at the time of filing of the '262 patent, and are adequately supported by his professional experience and skill in the field of electronic cooking appliance design.

D. Alleged Obviousness of Claims 1, 13, and 14 over Hlava and Nachumsohn³

Patent Owner does not provide substantive rebuttal arguments to the combination of Hlava and Nachumsohn. *See* PO Resp. 43–50. Patent Owner relies specifically upon its arguments with respect to Hlava and Nachumsom individually, as previously set forth in its Patent Owner’s Response:

Patent Owner respectfully submits that the arguments set forth hereinabove in response to Petitioner's contentions that Claims 1, 13, and 14 are obvious over Hlava and Nachumsohn individually, also obviate Petitioner’s contentions that the combination of such references, Hlava in view of Nachumsohn, or, inversely, Nachumsohn in view of Hlava, establish a prima [facie] case of obviousness under §103(a).

Id. at 45.

Petitioner argues that understanding Nachumsohn’s teaching of a bottom heating element for roasting, one of ordinary skill in the art would have shifted one of Hlava’s heating elements, for example the largest wattage heating element 30c', to the bottom of the cooker for more proportioned heat distribution for roasting. Pet. 25. Petitioner contends that shifting a heating element in Hlava from the sidewall to the bottom of the cooking pan as taught by Nachumsohn would have required no more than the exercise of ordinary skill in the art and also would not change the fundamental structure or function of Hlava’s selector switch 52 and

³ The order in which the references are combined, Hlava and Nachumsohn or Nachumsohn and Hlava is immaterial to our Decision. The question is “whether the claimed inventions are rendered obvious by the teachings of the prior art as a whole.” *See In re Etter*, 756 F.2d 852, 859 (Fed. Cir. 1985) *see also, e.g., In re Bush*, 296 F.2d 491, 496 (CCPA 1961).

thermostat 58, as they correspond respectively to the claimed heating means and temperature controlling means recited in claim 1. *Id.*

Petitioner further asserts that Nachumsohn discloses all the elements of claim 1 with the exception of a function controlling means, but that it was known in the art to provide different cooking modes by enabling multiple heating elements to be energized selectively, such as described by Hlava. Pet. 40 (citing Ex. 1003, 2:19–25 (“Summary of the Invention”)). Petitioner reasons that one of ordinary skill in the art would have modified Nachumsohn’s deep well cooker with Hlava’s selector switch 52 and 52' to enable selected energizing of the wrap-around and bottom heating elements to provide for more diversified cooking modes and that Hlava’s selective heating of different heating elements via selector switch 52 and 52' as a function controlling means would provide such different cooking modes. *Id.* at 41.

Petitioner supports this argument with Mr. Sherwood’s testimony that it was known in the art to selectively energize different heating elements to achieve various cooking modes and would have been routine for a person of ordinary skill to have used a four position rotary switch, substantially the same as disclosed by Hlava’s switch 52 and 52', to select different cooking modes. *Id.* at 41 (citing Ex. 1017 ¶¶ 22, 36–39). Mr. Sherwood states that such a four position rotary switch, (e.g., off, low, high, and roast), could be electrically connected to Nachumsohn’s thermostat to selectively energize the heating elements to provide variable cooking modes. Ex. 1017 ¶¶ 33–34.

We are persuaded by Petitioner’s arguments, reasoning, and evidence, and credit Mr. Sherwood’s testimony, with respect to the combination of

Hlava and Nachumsohn. According to Mr. Sherwood, a person of ordinary skill in the art would have known that food cooking devices at the time of the filing of the '262 patent were provided having both bottom and side heating elements as in Nachumsohn to provide for even heating of food in the cooking device. Pet. 37–39 (citing Ex. 1017 ¶¶ 22, 36–39). Although Nachumsohn does not disclose a specific function control that selectively energizes separate heating elements, according to Mr. Sherwood, a person of ordinary skill in the art would also have known of food cookers such as Hlava that have different cooking modes and can separately energize different heating elements. Ex. 1017 ¶¶ 34–36. The person of ordinary skill in the art also would have known that such function and structure could be achieved with a separate function switch in the heating circuit, such as disclosed in Hlava, for selectively energizing different heating elements to provide discrete cooking modes. *Id.* ¶ 34. Mr. Sherwood further testifies that a person of ordinary skill would also have known to arrange a selector switch such as disclosed by Hlava, in the heating circuit to provide for energizing the heating elements separately or in combination to provide different modes of cooking. *Id.*

With respect to claims 13 and 14, Petitioner notes that Nachumsohn's band 12 and shell 6 are oval in configuration, and that Nachumsohn's roast pan 1 conforms to the dimensions of shell 6. Pet. 45–46. Patent Owner, again, does not address the further limitations added by dependent claims 13 and 14, instead relying exclusively upon its arguments with respect to Nachumsohn and claim 1. *See* PO Resp. 49–50. We therefore conclude that a preponderance of the evidence demonstrates that claims 1, 13, and 14 are unpatentable based on Nachumsohn and Hlava.

E. Alleged Obviousness over Nachumsohn and Vallorani

Petitioner alleges that claims 1, 13, and 14 are unpatentable under 35 U.S.C. § 103(a) over Nachumsohn and Vallorani. Pet. 42–43. Patent Owner disputes Petitioner’s position, arguing that Vallorani is not analogous art and that a person of ordinary skill in the art would not have had reason to combine the references in the manner proposed by Petitioner. PO Resp. 50–54 .

1. Overview of Vallorani

Vallorani relates to control circuits for an electric oven such as home appliance electric ranges. Ex. 1005, 1:10–13. Vallorani discloses specifically a heating control circuit with “a manually operable control switch selectively operative to establish different electrical heating connections between the heating elements and the source of current supply so as selectively to set the oven to carry out different broiling and baking operations.” *Id.* at 1:17–22. Figures 1 and 2 of Vallorani are reproduced below:

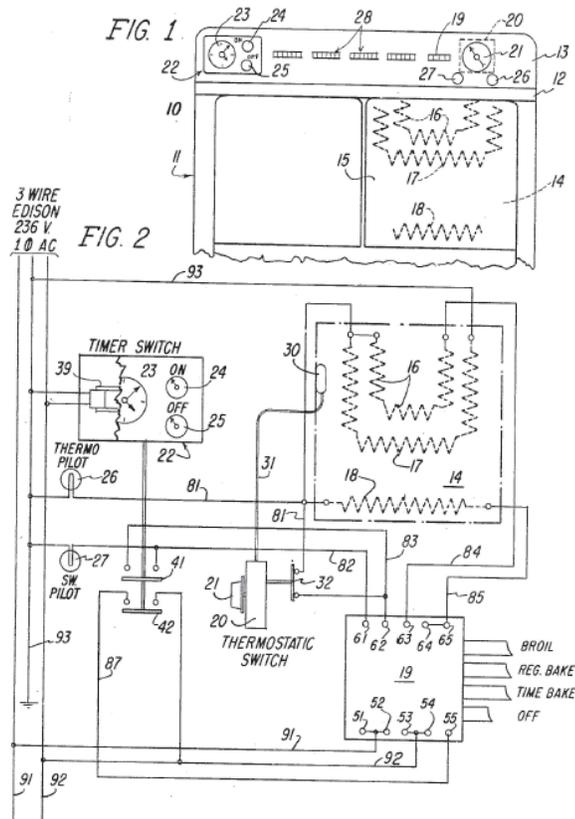


Figure 1 is a fragmentary front view of an electric range, and Figure 2 is a diagram of a circuit control network incorporated in the range of Figure 1. *Id.* at 2:23–31. As depicted in Figures 1 and 2 of Vallorani, above, a circuit network is shown having heating elements 16, 17, and 18. Manual control switch 19 is connected to the circuit network for selectively controlling the heating elements. *Id.* at 3:37–39. The control switch “includes four individual manually operable pushbuttons respectively corresponding to the off, broil, regular bake and time bake positions thereof.” *Id.* at 3:44–48, Fig. 2.

Vallorani describes operation of the control switch to undertake different cooking or baking operations, such as broiling, where heating elements 16 and 17 are energized to provide greater heat in the upper portion of the oven cavity to facilitate broiling food. *Id.* at 5:21–55, Fig. 3. For a

regular baking operation on the other hand, heating elements 17 and 18 are energized so as to develop a more uniform heating throughout the oven cavity. *Id.* at 5:56–6:10, Fig. 4.

2. Discussion

A reference qualifies as prior art for an obviousness determination under § 103 only when it is analogous to the claimed invention. *In re Klein*, 647 F.3d 1343, 1348 (Fed. Cir. 2011) (citing *Innovation Toys, LLC v. MGA Entm't, Inc.*, 637 F.3d 1314, 1321 (Fed. Cir. 2011)); *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004); *In re Clay*, 966 F.2d 656, 658 (Fed. Cir. 1992). A reference is considered analogous prior art: (1) if the reference is from the same field of endeavor as the claimed subjected matter, regardless of the problem addressed, or (2) if “the reference still is reasonably pertinent to the particular problem with which the inventor is involved,” even though the reference is not within the field of the inventor’s endeavor. *Bigio*, 381 F.3d at 1325. The “field of endeavor” test asks if the structure and function of the prior art is such that it would be considered by a person of ordinary skill in the art, because of the similarity to the structure and function of the claimed invention as disclosed in the application. *Id.* at 1325–27.

Patent Owner concedes that both a deep well cooker and Vallorani’s range are “home cooking appliances” but argues that they are directed to “substantially different fields.” PO Resp. 52. Apart from this assertion, Patent Owner does not explain or provide any evidence that these two home cooking apparatuses are actually in different fields of endeavor. Vallorani does not specifically disclose a deep well cooking apparatus, however, where an electric range and a deep well cooker perform various similar domestic food cooking operations, it is reasonable that a person of ordinary

skill in the art would look to known electric food cooking devices such as an electric cooking range with electric radiant heating elements that function for the same purpose, and in a similar way, to a deep well cooking apparatus, that is, to heat and cook food in a variety of different phases or modes.

Compare. Ex. 1005, 1:14–25, *with* Ex. 1004, 1:15–22. The scope of analogous art is to be construed broadly. *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1238 (Fed. Cir. 2010) (“The Supreme Court’s decision in *KSR* . . . directs us to construe the scope of analogous art broadly”). The fact that Vallorani addresses, at one point, a different problem from Nachumsohn, e.g., too much top heat for evenly baking a cake, does not mean, as Patent Owner contends, that the references are directed to different fields of endeavor and therefore nonanalogous art. *See* PO Resp. 53 (citing Ex. 1005, 1:42–46).

Patent Owner further argues that even if Nachumsohn and Vallorani are properly combined under § 103(a), the combination does not meet all the limitations of claim 1 because Vallorani discloses that “heating elements 16, 17, 18 are energized *only in combination* (i.e. *not individually*).” PO Resp. 54. This argument is not commensurate in scope with the claims. Claim 1 recites “function controlling means. . . enabling said bottom heating element and said wrap-around heating element to be *selectively energized* to provide variable cooking modes.” (Emphasis added). As Patent Owner itself points out, “at least two of Vallorani’s three heating elements 16, 17, 18 are energized at all times during cooking operations.” *Id.* at 54–55. This is consistent with claim 1 reciting that the heating elements are “selectively energized.” Vallorani discloses, for example, that in a broil function heating

elements 16 and 17 are selectively energized, and element 18 is not energized. PO Resp. (citing Ex. 1005, 5:21–40, Fig. 3).

We are persuaded that Vallorani is analogous art to Nachumsohn because the references disclose similar apparatuses performing the same food cooking functions, and therefore a person of skill in the art would reasonably have looked to such similar cooking apparatus and heating control circuits at the time of the invention of the '262 patent to provide control over the heating elements to achieve different heating modes. We are also persuaded by Petitioner's argument, and evidence, that Vallorani's control circuit for an electric oven discloses a circuit for selectively energizing different heating elements to perform different heating operations or modes. Pet. 40 (citing Ex. 1005, 1:14–29). We are further persuaded by Petitioner's evidence that it would have been a straightforward task for one of ordinary skill in the art to incorporate Vallorani's switch 19 with Nachumsohn's thermostat "to provide variable cooking modes" to Nachumsohn's cooker. Pet. 41–43 (citing Ex. 1017 ¶¶ 22, 36–39).

Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 1, 13, and 14 are unpatentable based on Nachumsohn and Vallorani.

F. Motion to Amend Claims 1, 13, and 14

Patent Owner moves to substitute claims 20–22 for challenged claims 1, 13, and 14, respectively, if we find original claims 1, 13, and 14 unpatentable. Mot. to Amend 1. As stated above, we determine that Petitioner has demonstrated by a preponderance of evidence that all of the challenged claims are unpatentable. Therefore, Patent Owner's Motion to

Amend is before us for consideration. For the reasons set forth below, Patent Owner's Motion to Amend is denied.

Proposed substitute claim 20 is shown below with underlining to indicate additions as compared to original claim 1.

20. A deep well cooker comprising:
an outer housing having a lid member;
a deep well member residing within said housing, said deep well member having a bottom surface with integrally formed sidewalls and an open top;
heating means including a bottom heating element and a wrap-around heating element radially disposed about said deep well member and positioned intermediate said housing and said deep well member;
temperature controlling means electrically interconnected to said heating means for regulating the temperature of said heating elements; and
function controlling means including a multifunction controller electrically interconnected to said temperature controlling means and to said heating elements enabling said bottom heating element and said wrap-around heating element to be selectively energized individually or in combination to provide variable cooking modes.

Mot. to Amend, 2–3.

Proposed substitute claims may not enlarge the scope of original patent claims. 35 U.S.C. § 316(d)(3); 37 C.F.R. § 42.121(a)(2)(ii). Petitioner argues that the Motion to Amend should be denied because the added limitations may not invoke § 112, ¶ 6, leaving the claim limitation potentially covering structures not described in the specification. Opp. to Amend 1–2. Patent Owner contends that this amendment is a narrowing amendment “by adding limitations to the function controlling means.” Mot. to Amend 4; Reply to Amend 1.

We determined in our Decision to Institute that the structure corresponding to the “function controlling means” is described in the specification of the ’262 patent as a “multi-function controller,” “multifunction control,” “function control switch 34,” and “multi-function control switch 34.” Inst. Dec. 9–10 (citing Ex. 1001, 3:34–37, 3:64–4:1). We also found that “[t]hese terms are used throughout the specification essentially interchangeably to refer to function control switch 34 and selective control of the heating elements.” *Id.* at 10. Our claim construction determined this means-plus-function limitation to cover the following structure:

the device, and its equivalents, as reflected in Figures 1A–3 of the ’262 patent mounted in the outer housing of the deep well cooker and manipulated separately from the temperature control means by a user, and as represented in the specification, can pass current individually to either the bottom heater or wrap-around heater, or in combination to both.

See Inst. Dec. 11. As so construed, the scope of this limitation, therefore, encompasses a “multifunction controller,” as Patent Owner now provides in substitute claim 20. We consider this amendment, therefore, to be neither broadening nor narrowing to the scope of the original claim.

What is not definite from this proposed claim amendment, reading the entire means-plus-function phrase “function controlling means including a multifunction controller” in context, is whether the “multifunction controller” is recited as the “function controlling means” itself, or, a required portion or substructure of the “function controlling means,” or, if “multifunction controller” is intended as an exemplary alternative structure to the structures we identified from the specification as included under the proper § 112, ¶ 6 analysis. Patent Owner’s explanation for this amendment is

equally unhelpful, stating that “[a]s disclosed in the ’262 patent, the multifunction controller *may* comprise a function control switch 34, and its equivalents, for selective control of the heating elements.” Mot. to Amend 5 (emphasis added). This explanation as to what the multifunction controller “may” provide is ambiguous as to what structure or substructure is being claimed in the substitute claim. The substitute claim is therefore indefinite. *See* 35 U.S.C. § 112, ¶ 2.

Moreover, Patent Owner fails to explain why this amendment renders claim 1 patentable over Hlava in view of what was known to one of ordinary skill in the art with regards to such controllers at the time of the alleged invention in the ’262 patent. Patent Owner asserts again, *inter alia*, that Hlava does not disclose a bottom heating element, “which is a patentable distinction of the ’262 patent and mitigates against a finding of obviousness under 35 U.S.C. §103(a).” Mot. to Amend 6–7. However, the Motion is devoid of any explanation or discussion with respect to the proposed amendment and Hlava. Patent Owner argues that Nachumsohn does not disclose a “**multifunction controller or function control switch** that selectively energizes Nachumsohn’s heating elements **individually or in combination**, or any equivalent structure, to change the automatic index setting.” *Id.* at 9–10. This argument is ineffective because Nachumsohn is not relied upon for the multifunction controller. Petitioner’s grounds rely upon Hlava, the common knowledge of an artisan of ordinary skill in the art, and Vallorani as disclosing the claimed “function controlling means.” *See* Pet. 32–36, 38–43. Further, the proposed limitation “individually or in combination” maintains the energizing of the heating elements “in

combination” as an alternative in the claim and, thus, cannot distinguish over Nachumsohn or Vallorani. *See* Mot. to Amend 11–14.

G. Evidence of Secondary Considerations — Copying

Patent Owner states that the ’262 patent is asserted against Petitioner in *Acorne Enterprises, LLC v. Euro-Pro Operating LLC, et al.* (Civil Action No. 3:12-cv-00602-RCJ-WGC) in the U.S. District Court for the District of Nevada. PO Resp. 58. Patent Owner appears to allege that the filing of such litigation, as “the impetus for Euro-Pro Operating LLC’s filing of the present Petition(s) for *Inter Partes* review” is evidence of copying. *Id.* Secondary considerations such as copying must be considered when present. Here, however, the mere filing of a lawsuit by Patent Owner, without more, is simply not evidence of copying. Indeed, it is not evidence of copying even if Petitioner’s product is encompassed by Patent Owner’s claims. *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1321 (Fed. Cir. 2004) (“[S]imply because an invention falls within a range disclosed by the prior art does not necessarily make it per se obvious.”). Also, the filing of a lawsuit does not provide evidence showing that the other manufacturers copied the claimed invention after expending great effort to develop their own solution. *See Pentec, Inc. v. Graphic Cntrls. Corp.*, 776 F.2d 309, 317 (Fed. Cir. 1985) (Alleged copying is not persuasive of nonobviousness when the copy is not identical to the claimed product, and the other manufacturer has not expended great effort to develop its own solution.); *Vandenberg v. Dairy Equip. Co., a Div. of DEC Int’l, Inc.*, 740 F.2d 1560, 1567 (Fed. Cir. 1984) (Evidence of copying found particularly persuasive where copyist had itself attempted for a substantial length of time to design a similar device, and failed.).

IV. CONCLUSION

Based on the complete record before us, we conclude that Petitioner has demonstrated by a preponderance of the evidence that claims 1, 13, and 14 of the '262 patent are unpatentable as obvious over Hlava, over Hlava and Nachumsohn, and over Nachumsohn and Vallorani.

V. ORDER

For the reasons given, it is

ORDERED that claims 1, 13, and 14 of U.S. Patent No. 6,515,262 are determined by a preponderance of the evidence to be unpatentable;

FURTHER ORDERED Patent Owner's Motion to Amend is denied;
and

FURTHER ORDERED that, because this is a final written decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2014-00351
Patent 6,515,262 B1

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