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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ARUN PAIDIMARRI, DANIELLE GRIFFITH, and
ALICE WANG¹

Appeal 2014-004718
Application 13/406,849
Technology Center 2800

Before CHUNG K. PAK, JEFFREY T. SMITH, and MARK NAGUMO,
Administrative Patent Judges.

PAK, *Administrative Patent Judge.*

DECISION ON REQUEST FOR REHEARING

Appellants timely request rehearing² under 37 C.F.R. § 41.41 of our Decision, entered September 8, 2016 (“Decision”), affirming the rejections of claims 21, 22, and 29–38 as anticipated by a patent issued to Romao.³

There is no dispute that “the only claimed limitation argued by Appellants to be missing in Romao is employing or using an ‘LPLAO

¹ The real party in interest is listed as Texas Instruments Incorporated. (Appeal Brief, filed November 20, 2013 (“App. Br.”), 1.)

² Request for Rehearing, filed November 1, 2016 (“Req. Reh’g”).

³ US 6,650,189 B1 issued to Romao on November 18, 2003.

[(lower power less accurate oscillator)] purposely mistuned to provide said first clock using less power but with less accuracy than if correctly tuned' in its apparatus or method, as recited in claims 21 and 34 [respectively].”

Compare Decision 4–5, *with* Req. Reh’g 3–12. Thus, the dispositive question raised in the Decision was: Did the functionally defined LPLAO recited in claims 21 and 34 exclude the LPLAO taught by Romao? Decision 4–6. On this record, we answered this question in the negative for the reasons set forth at page 5 of the Decision, which is reproduced below for convenience:

As found by the Examiner and acknowledged by Appellants, “the low-power oscillator 10 of Romao [corresponding to the recited LPLAO] is mistuned by way of lack of temperature compensation[.]” *See* App. Br. 8 citing the Advisory Action of November 1, 2013. As explained by the Examiner, “[b]y choosing to use the uncompensated oscillator (10) [(LPLAO)] of [F]igure 1, Romao is [purposely] choosing to use a...mistuned oscillator (10), by allowing temperature-induced frequency drift to occur in oscillator (10) without any frequency correction/tuning[.]” Ans. 4. The use of this mistuned, less accurate, LPLAO, according to Romao, causes a significant power saving. Romao, col. 4, ll. 42-45 (“The switch-over from the oscillator 6 to the [mistuned] oscillator 10 is done by means of the selector 11. The power saving thus obtained is significant but may be further improved.”) Because Romao, like Appellants, employs a less-accurate mistuned conventional LPLAO in its system and method to significantly reduce the power consumption, there is a reasonable basis to believe that Romao’s mistuned, less-accurate, oscillator is capable of providing the first clock “using less power but with less accuracy than if correctly tuned” at least some point during the operation of the communication

apparatus.⁴ *See also* Spec.¶22 (“In the past, the accuracy versus power consumption has been a trade off, so the more accurate the oscillator, the more power consumed.”) [(Footnote added.)]

In support of the above position, we referred to *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977) (“Where . . . the claimed and prior art products are identical or substantially identical, . . . the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product”) and *In re Schreiber*, 128 F.3d 1473, 1478 (Fed. Cir. 1997) (explaining that “choosing to define an element functionally, *i.e.*, by what it does, carries with it a risk . . . where the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.” (quoting *In re Swinehart*, 439 F.2d 210, 213 (CCPA 1971))). Decision 5–6.

Appellants contend that we erred reversibly in our Decision by stating that Appellants argued for the first time in the Reply Brief “that the Specification describes the power consumption of a crystal oscillator as being dependent on a load capacitance . . . [and by declining] to consider the argument . . .” Req. Reh’g 2 and 3 citing Decision 4, footnote 4, lines 1–3. According to Appellants, such argument was supported at page 8 of the Appeal Brief. Req. Reh’g 3 quoting the statement referring to paragraphs 22

⁴ Implicit in this reasoning is that claims 21 and 34 do not specify or limit when and how purposeful mistuning is accomplished.

through 24 of the Specification at page 8 of the Appeal Brief. Req. Reh’g 3. Although Appellants did refer to paragraphs 22 through 24 of the Specification in the Appeal Brief to show that Romeo does not disclose one example embodiment described in the Specification, they did not rely on those paragraphs to support the argument that “there is no teaching whatsoever that Romao designed oscillator 10 at anything other than optimal tuning” as was raised in the Reply Brief. *Compare* Reply Br. 4–5 referred to in footnote 4 of the Decision, *with* App. Br. 8. Thus, we find no harmful error in declining to consider the example embodiment described in paragraphs 22 through 24 of the Specification in this new context discussed at pages 4 and 5 of the Reply Brief.

To the extent that Appellants may have referred to paragraphs 22 through 24 of the Specification in the Reply Brief in the same context discussed in the Appeal Brief, we stated in the same footnote at page 4 of the Decision that such example embodiment in the Specification is “not recited in claims 21 and 34.” Stated differently, the purposefully mistuned LPLAO recited in claims 21 and 34 is not limited to the LPLAO exemplified at paragraphs 22 through 24 of the Specification. *Id.* Indeed, Appellants acknowledge that such paragraphs set forth “what Appellants considered to be *one* embodiment of ‘purposeful mistuning’” Req. Reh’g 4 (emphasis added). It follows that Appellants have not shown the mistuned low power oscillator described by Roma is not within the scope of the mistuned LPLAO recited in claims 21 and 34. *In re Self*, 671 F.2d 1344, 1348 (CCPA 1982)(“[A]ppellant’s arguments fail from the outset because . . . they are not based on limitations appearing in the claims.”)

Appellants also contend that we erred reversibly in the Decision “by determining that ‘mistuning’ of the less accurate, LPLAO is what causes a power saving in oscillator 10.” Req. Reh’g 4. In support of this contention, Appellants refer to column 4, line 66 to col. 5, line 27 of Romao. *Id.* at 5. According to Appellants, Romao teaches that temperature drift is a problem in oscillator 10 that should be fixed and overcome with the oscillator of Figure 2 having “more components and more complicated circuitry.” *Id.*

However, as found at page 5 of our Decision and not disputed by Appellants, Romao teaches that “[t]he switch-over from the oscillator 6 to the oscillator 10 [corresponding to the LPLAO] is done by means of the selector 11. The power saving thus obtained is significant but may be further improved.” *Compare* Decision 5, with Req. Reh’g 4–5. Moreover, as correctly found by the Examiner, “the low-power oscillator 10 of Romao [corresponding to the recited LPLAO] is mistuned by way of lack of temperature compensation[.]’ *See* App. Br. 8⁵ citing the Advisory Action of November 1, 2013.” Decision 5; *see also* Req. Reh’g 10. Although Romao teaches that “the oscillator of FIG. 2 can replace the oscillator 10” to *minimize* (not prevent) the oscillator 10’s frequency drifts as a function of the temperature, it also teaches using oscillator 10 that is mistuned (not correctly tuned to compensate for the oscillator’s frequency drifts as a function of the temperature during its operation), together with oscillator 6 to reduce power consumption as indicated *supra*. *See also* Req. Reh’g 10

⁵ At page 8 of the Appeal Brief, Appellants also stated that “Romao teaches ‘inadvertent mistuning’ that occurs naturally as low-power oscillator 10 operates. As a result, there is, and can be, no ‘purposeful mistuning’ of low-power oscillator 10 in Romao.”

(“Appellants clearly set forth a meaning of ‘purposeful mistuning of an oscillator’ (*which requires an overt act of the circuit designer*) that does not include [Romao’s] ‘mistuning of an oscillator by way of lack of temperature compensation’ (which is inherent and does not require an overt act) in paragraphs [0022]–[0024] of the present specification.”) Thus, we perceive no harmful error in finding that Romao teaches a communication apparatus that uses oscillator 6 and mistuned oscillator 10, which reduces power consumption. Nor do we observe any harmful error in determining that

[b]ecause Romao, like Appellants, employs a less-accurate mistuned conventional LPLAO [(oscillator 10)] in its system and method to significantly reduce the power consumption, there is a reasonable basis to believe that Romao’s mistuned, less-accurate, oscillator is capable of providing the first clock “using less power but with less accuracy than if correctly tuned” at least some point during the operation of the communication apparatus

as required by claims 21 and 34. Decision 5; *Schreiber*, 128 F.3d at 1477–78 (holding that a funnel disclosed for oil dispensing anticipated a claim to a funnel-like structure employed for dispensing popcorn and that applicant had the burden of demonstrating that the prior art funnel was not capable of dispensing popcorn once the Examiner established similarity between the prior art and claimed structures.) On this record, Appellants do not demonstrate that the intentionally or purposefully mistuned LPLAO employed or used in claims 21 and 34 is patentably different from the naturally mistuned LPLAO taught by Romao.

Appellants further contend that we erred reversibly by failing to consider paragraphs 22 through 24 of the Specification to define the meaning of “purposeful mistuning” in the context of the above contested limitation in

claims 21 and 34. Req. Reh’g 2 and 7. Appellants then contend that we erred “by denying Appellants the right to be their own lexicographer.” *Id.* at 10. According to Appellants,

Appellants clearly set forth a meaning of ‘purposeful mistuning of an oscillator’ (*which requires an overt act of the circuit designer*) that does not include [Romao’s] ‘mistuning of an oscillator by way of lack of temperature compensation’ (which is inherent and does not require an overt act) in paragraphs [0022]–[0024] of the present specification.

Id. These arguments, however, were not presented in the Appeal Brief. Appeal Br. 5–11. Nowhere in the Appeal Brief do Appellants argue the description in paragraphs 22 through 24 of the Specification constitutes a form of lexicography that clearly defines the meaning of “purposeful mistuning” in the context of the above contested limitation. *Id.* Accordingly, we need not consider these new arguments. 37 C.F.R.

§ 41.52(a)(1)(2014) (“Arguments not raised . . . pursuant to §§41.37, 41.41 or 41.47 are not permitted in the request for rehearing”)

Even if we were to consider such new arguments, they are not persuasive of harmful error in the Decision. As is apparent from the description of the appealed subject matter at page 2 of the Decision, the purposefully mistuned LPLAO recited in claims 21 and 34 includes, but is not limited to, the specifically mistuned crystal oscillator exemplified at paragraphs 22 through 24 of the Specification. Indeed, Appellants acknowledge that such paragraphs set forth “what Appellants considered to be *one* embodiment of ‘purposeful mistuning’” Req. Reh’g 4 (emphasis added); *see also* Spec. ¶ 22 (“In an example embodiment, a

crystal oscillator is purposefully mistuned to achieve lower power consumption, and then synchronized using a high frequency crystal oscillator.”) This is not a situation where Appellants acted as their own lexicographer. *See Vasudevan Software, Inc. v. MicroStrategy, Inc.*, 782 F.3d 671, 677 (Fed. Cir. 2015) (“[P]atentees can act as their own lexicographers if they ‘clearly set forth a definition of the disputed claim term’ other than its plain and ordinary meaning.” (quoting *Thorner v. Sony Computer Entm’t Am., LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012))); *see also In re Priest*, 582 F.2d 33, 37 (CCPA 1978) (“We have consistently held that no ‘applicant should have limitations of the specification read into a claim where no express statement of the limitations is included in the claim’” (citing *In re Prater*, 415 F.2d 1393, 1405 (CCPA 1969))). Because the purposefully mistuned LPLAO recited in claims 21 and 34 is not limited to the specifically mistuned crystal oscillator exemplified at paragraphs 22 through 24 of the Specification, we find no harmful error in the Decision, for Appellants’ arguments are not based on limitations appearing in claims 21 and 34. *Self*, 671 F.2d at 1348.

Finally, Appellants contend that we erred reversibly by finding that Romao’s oscillator 10 is mistuned. Req. Reh’g 2 and 5–7. In so contending, Appellants again raise the new argument not raised in the Appeal Brief. *Compare* Req. Reh’g 2 and 5–7 *with* App. Br. 8. Nowhere in the Appeal Brief do Appellants contend that Romao’s oscillator 10 is not mistuned. App. Br. 5–11. Rather, Appellants contend that “Romao teaches ‘inadvertent mistuning’ that occurs naturally as low-power oscillator 10 operates. As a result, there is, and can be, no ‘purposeful mistuning’ of low-power oscillator 10 in Romao.” App. Br. 8. Thus, we decline to consider

this new argument that could have been raised in the Appeal Brief, but were not.⁶ 37 C.F.R. § 41.52(a)(1); *Ex parte Borden*, 93 USPQ2d 1473, 1477 (BPAI 2010) (informative) (“Properly interpreted, the Rules do not require the Board to take up a belated argument that has not been addressed by the Examiner, absent a showing of good cause.”); *Ex parte Nakashima*, 93 USPQ2d 1834 (BPAI 2010) (explaining that arguments and evidence not timely presented in the principal Brief, will not be considered when filed in a Reply Brief, absent a showing of good cause explaining why the argument could not have been presented in the Principal Brief.) In any event, as indicated *supra*, the design of Romao deliberately allows temperature variation that results in mistuning.

Accordingly, while we have considered the Request, we deny the relief sought.

ORDER

It is ORDERED that the Request for Rehearing is denied.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

DENIED

⁶ This argument is also unconvincing. *See, e.g.*, Req. Reh’g 10 (“Appellants clearly set forth a meaning of ‘purposeful mistuning of an oscillator’ (*which requires an overt act of the circuit designer*) that does not include [Romao’s] ‘mistuning of an oscillator by way of lack of temperature compensation’ (which is inherent and does not require an overt act) in paragraphs [0022]–[0024] of the present specification.”)