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LAW OFFICE OF A.P. DURIGON
20 EUSTIS STREET
CAMBRIDGE, MA 02140

EXAMINER	
KUHLMAN, CATHERINE BURK	

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apdurigon@gmail.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RUDY A. VANDENBELT, TROY G. ANDERSON, and PHILIPPE J. GENEREUX

Appeal 2018-003749
Application 13/796,555[1]
Technology Center 3700

Before STEFAN STAICOVICI, EDWARD A. BROWN, and RICHARD H. MARSCHALL, *Administrative Patent Judges*.

BROWN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant seeks review under 35 U.S.C. § 134(a) of the Examiner's decision rejecting claims 1–6, 10, and 23–25, which are the pending claims. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] We use the word "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Headwaters, Inc. Appeal Br. (dated Oct. 13, 2017) 1.

CLAIMED SUBJECT MATTER

Appellant's disclosure "is drawn to the field of sleep therapy, and more particularly, to novel system and method providing all-night sleep management." Spec. 1.

Claim 1, reproduced below, is representative of the claimed subject matter.

> 1. Apparatus for use in an all-night sleep management system by an individual sleeper whose sleep cycle is being managed by said all-night sleep management system in accord with a predetermined all-night sleep management paradigm providing all-night management of a predetermined sleeper's overall awake-to-sleep-to-wake-up-refreshed sleep cycle, comprising:
>
> a media player that is part of said all-night sleep management system that plays media that when played by the media player has a predetermined duration and content that are determined to implement said predetermined all-night sleep management paradigm providing all-night management of a predetermined sleeper's overall awake-to-sleep-wake-up-refreshed sleep cycle;
>
> wherein said predetermined sleeper's overall awake-to-sleep-to-wake-up-refreshed sleep cycle has a predetermined duration; wherein said predetermined all-night sleep management paradigm, providing said all-night management of a predetermined sleeper's overall awake-to-sleep-to-wake-up-refreshed sleep cycle, is determined to allow said predetermined sleeper whose sleep cycle is being managed by the all-night sleep management system to fall and remain asleep all-night long without transitions that consciously or unconsciously could potentially disrupt the rest and sleep of sensitive sleepers; and wherein said predetermined content and duration of play, when said media is played by said media player that plays media determined to implement said predetermined all-night sleep management paradigm determined to allow the predetermined sleeper whose sleep cycle is being managed by the all-night sleep management system to fall and remain asleep

> all-night long without transitions that consciously or unconsciously could potentially disrupt the rest and sleep of sensitive sleepers, are determined to eliminate transitions that consciously or unconsciously could potentially disrupt the rest and sleep of sensitive sleepers, such that said duration of play, when said media is played by said media player, is no less in duration than said predetermined duration of said predetermined sleeper's overall awake-to-sleep-to-wake-up-refreshed sleep cycle, and wherein said content being played, when said media is played by said media player, is determined relative to said duration, that is no less in duration than said predetermined duration, such that said content that is played when said media player plays media is unique content that does not repeat prior to expiry of said duration that is no less in duration than said predetermined duration, and is continuous content free from breaks, gaps and potentially disruptive transitions prior to expiry of said duration that is no less in duration than said predetermined duration.

Appeal Br. 24–25 (Claims App.).

REJECTIONS[2]

Claims 1–6, 10, and 23–25 stand rejected under 35 U.S.C. § 112(b) as indefinite.

Claims 1–6, 10, 23, and 25 stand rejected under 35 U.S.C. § 102(b) as anticipated by Osborn[3].

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[2] Additionally, claim 1 is objected to "because . . . the same limitations are repeated multiple times throughout the claim. Such language makes it difficult to identify the features of the invention and clearly understand the claim." Final Act. 2. As this is a petitionable matter, rather than an appealable matter, we do not address the objection in this appeal.

[3] Osborn, US 2008/0020672 A1, published Jan. 24, 2008.

Claim 24 stands rejected under 35 U.S.C. § 103 as unpatentable over Osborn and Anderson[4].

ANALYSIS

Claims 1–6, 10, and 23–25 as indefinite

The Examiner determines that claims 1–6, 10, and 23–25 are indefinite based on the recitation of the terms in claim 1 discussed below. Final Act. (dated Nov. 25, 2016) 4–5.

"*Could," "Potentially," and "Sensitive sleepers"*

Claim 1 recites the limitation "transitions that consciously or unconsciously *could potentially* disrupt the rest and sleep of *sensitive sleepers*." Appeal Br. 24 (Claims App.) (emphasis added) ("transitions limitation"). The Examiner determines that "could" and "potentially" are subjective terms which render claim 1 indefinite. Final Act. 4. As for the term "could," the Examiner reasons, "[d]isruptions that interrupt sleep vary from person to person" and "while these disruptions may disrupt rest and sleep, they don't necessarily do so (as the term 'could' implies they may not disrupt rest and sleep) therefore it is unclear what disruptions are to be avoided in order to satisfy this limitation." *Id.* The Examiner states similar reasoning for the term "potentially." *Id.*

Appellant contends that the kind of transitions that would satisfy the transitions limitation are recited at lines 16–31 of claim 1 (i.e., the remaining portion of claim 1 following the transitions limitation). Appeal Br. 16. As for the term "could," Appellant contends that the claim language need not be more precise than the nature of the subject of the invention permits. *Id.*

[4] Anderson et al., US 7,749,155 B1, issued July 6, 2010.

Appellant states, "[a]s will be appreciated by those of skill in the art, the sensitive sleepers the present invention is concerned about are those sleepers whose sleep could be disturbed by potentially disruptive transitions." *Id.*

For claims in an application, "[a] claim is indefinite when it contains words or phrases whose meaning is unclear." *In re Packard,* 751 F.3d 1307, 1310, 1314 (Fed. Cir. *2014); see Ex parte McAward,* No. 2015-006416, slip op. at 11 (PTAB Aug. 25, 2017) (precedential) (same). We agree with the Examiner that claim 1 recites language that is unclear.

We are not persuaded that the language at lines 16–31 clarifies the meaning of the transitions limitation. Claim 1 excludes transitions that "could potentially" disrupt rest and sleep of "sensitive sleepers." Appellant's explanation does not clarify what is meant by "sensitive sleepers," but rather, only slightly rephrases the transitions limitation. We construe the term "sensitive sleepers" as one of degree. "Claim language employing terms of degree has long been found definite where it provided enough certainty to one of skill in the art when read in the context of the invention." *Interval Licensing LLC v. AOL, Inc.,* 766 F.3d 1364, 1370 (Fed. Cir. 2014). Accordingly, "[t]he claims, when read in light of the specification and the prosecution history, must provide objective boundaries for those of skill in the art." *Id.* at 1371 (citing *Nautilus, Inc. v. Biosig Instruments, Inc.,* 572 U.S. 898, 911 & n. 8 (2014)). Here, the Specification does not describe clearly what is meant by "sensitive sleepers." The Specification mentions "more sensitive sleepers." Spec. 2. The Specification also mentions "average sleepers" (*id.* at 5, 12), but not in relation to "sensitive sleepers." Even if the use of these two different adjectives for sleepers might imply that "sensitive sleepers" are different

from "average sleepers," the Specification provides no objective boundary for identifying "sensitive sleepers" from such "average sleepers" or other types of sleepers. Accordingly, the transitions limitation attempts to define the excluded transitions based on being potentially disruptive to an undefined group of sleepers, making it unclear.

For these reasons, we agree with the Examiner that the meaning of the transitions limitations recited in claim 1 is unclear.

"Said duration" and "said predetermined duration"

The Examiner also determines that there is insufficient antecedent basis for the terms "said duration" and "said predetermined duration" in claim 1. Final Act. 4.

Claim 1 recites the terms and phrases "said duration of play" (l. 23), "said duration" (ll. 26–27, 29, 31), and "said predetermined duration" (ll. 27, 29, 31). Appeal Br. 24–25 (Claims App.). Claim 1 also recites the limitations "media that when played by the media player has *a predetermined duration*" (ll. 5–6); "said predetermined sleeper's overall awake-to-sleep-to-wake-up-refreshed sleep cycle has *a predetermined duration*" (ll. 10–11); "*said duration* of play, when said media is played by said media player" (ll. 23–24); "*said duration*, that is no less in duration than *said predetermined duration*" (ll. 26–27); and, similarly, "*said duration* that is no less in duration than *said predetermined duration*" (ll. 29, 31). *Id.* (emphasis added).

Appellant contends that "said duration" is defined with the limiting language "'that is no less than said predetermined duration,'" and "predetermined duration" refers to the predetermined duration of the overall

awake-to-sleep-to-wake-refreshed sleep cycle of the predetermined sleeper recited in lines 10–11. *Id.* at 16–17.

We understand that, in claim 1, the term "said duration" refers to the duration of play of the media, which may be equal to, or longer than, the predetermined duration of media play. Accordingly, we agree with Appellant that the meaning of "said duration" is sufficiently clear. However, we agree with the Examiner that it is unclear whether the term "said predetermined duration" recited in lines 27, 29, and 31 refers to the predetermined duration of the media or to the predetermined duration of the predetermined sleeper's sleep cycle. Ans. (dated Dec. 26, 2017) 3–4. We thus agree with the Examiner that the meaning of "said predetermined duration" is unclear.

"Unique content"

Claim 1 recites "said content that is played when said media player plays media is *unique content* that does not repeat prior to expiry of said duration that is no less in duration than said predetermined duration, and is continuous content free from breaks, gaps and potentially disruptive transitions prior to expiry of said duration that is no less in duration than said predetermined duration." Appeal Br. 25 (Claims App.) (emphasis added). The Examiner determines that the meaning of "unique content" is unclear. Final Act. 4. The Examiner states that "unique content" "could mean *inter alia* unique or new to a particular user, uniquely or newly created generally (i.e. not a known sound or song or audio signal), or unique relative to a previous use (for example played in a different order)." *Id.* Furthermore, the Examiner states, "the term 'unique' is also subjective as a sound that is

determined to be unique or interesting to one user may not be unique to another." *Id.* at 4–5.

Appellant contends that the term "unique content," in the context of the claimed subject matter as a whole, refers to the recited "'unique content that does not repeat prior to expiration of said duration that is no less in duration than said predetermined duration.'" Appeal Br. 17.

Appellant's explanation for the meaning of "unique content" is not persuasive. Appellant does not explain, for example, what is "unique" about the "unique content" or how the "unique content" may be different from simply "content." That is, is "unique content" simply "content that does not repeat prior to expiration of said duration that is no less in duration than said predetermined duration"? If not, it is unclear what is further required of the "content" by the term "unique." We note that the Specification does not describe the term "unique content," and, consequently, provides no apparent guidance as to the meaning of this term, and thus, lacks sufficient precision to permit one endeavoring to practice the invention to adequately determine the metes and bounds thereof. Accordingly, because we agree with the Examiner that the meaning of the term "unique content" is unclear, we also sustain the rejection as to this term.

For the above reasons, we sustain the rejection of claims 1–6, 10, and 23–25 under 35 U.S.C. § 112(b) as indefinite.

Claims 1–6, 10, 23, and 25 as anticipated by Osborn

The Examiner finds that Osborn discloses all limitations of claims 1–6, 10, 23, and 25. Final Act. 5–7.

In contrast, Appellant contends that Osborn does not disclose all limitations of claim 1, and thus, also dependent claims 2–6, 10, 23, and 25. Appeal Br. 17–21. As for claim 1, Appellant contends that Osborn does not disclose: (i) "the recited predetermined sleep management paradigm determined to prevent disturbances to the sleep of *sensitive sleepers* whether those disturbances are consciously perceived or unconsciously perceived; (ii) "the recited media player that is part of the recited all-night sleep management system that plays media having predetermined content and duration determined to eliminate disruptions that could disturb the sleep of such *sensitive sleepers*"; and (iii) the "*unique* and continuous *content* free from gaps and breaks that does not repeat prior to expiry of the duration at least as long in duration as the duration of the recited sleep cycle." *Id.* at 20 (emphasis added)

Because we sustain the rejection of claims 1–6, 10, 23, and 25 as indefinite, we cannot sustain the rejection of these same claims under 35 U.S.C. § 102(b). As discussed above, the meaning of certain terms and phrases recited in claim 1, including "sensitive sleepers" and "unique content," are unclear, and thus, are indefinite under 35 U.S.C. § 112(b). As Appellant contends that Osborn fails to disclose various claim limitations reciting these terms and phrases, sustaining the rejection of claims 1–6, 10, 23, and 25 would require speculation on our part as to their scope. *See In re Aoyama*, 656 F.3d 1293, 1300 (Fed. Cir. 2011) (holding that the Board erred in affirming an anticipation rejection of indefinite claims); *In re Steele*, 305 F.2d 859, 862–63 (CCPA 1962) (holding that the Board erred in affirming an obviousness rejection of indefinite claims because the rejection was based on speculative assumptions as to the meaning of the claims). Thus, we do

not sustain the rejection of claims 1–6, 10, 23, and 25 as anticipated by Osborn.[5]

Claim 24 as unpatentable over Osborn and Anderson

Because we sustain the rejection of claim 24 as indefinite, for the same reasons discussed above, we also cannot sustain the rejection of claim 24 under 35 U.S.C. § 103 as unpatentable over Osborn and Anderson.

DECISION SUMMARY

Claim(s) Rejected	**35 U.S.C. §**	**Reference(s)/Basis**	**Affirmed**	**Reversed**
1–6, 10, 23–25	§ 112(b)		1–6, 10, 23–25	
1–6, 10, 23, 25	§ 102(b)	Osborn		1–6, 10, 23, 25
24	103	Osborn, Anderson		24
Overall Outcome			1–6, 10, 23–25	

FINALITY AND RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

[5] It should be understood, however, that our decision is based solely on the indefiniteness of the claimed subject matter, and does not reflect on the adequacy of the reference applied in the rejection.