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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/023,245	09/10/2013	Gary D. Cudak	RPS920130030US2 (164CON)	1059
50594	7590	10/02/2019	EXAMINER	
Shutts & Bowen LLP STEVEN M. GREENBERG 525 Okeechobee Blvd # 1100 West Palm Beach, FL 33401			DOSHI, ANKIT B	
			ART UNIT	PAPER NUMBER
			3715	
			NOTIFICATION DATE	DELIVERY MODE
			10/02/2019	ELECTRONIC

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GARY D. CUDAK, LYDIA M. DO,
CHRISTOPHER J. HARDEE, and ADAM ROBERTS

Appeal 2019-001240
Application 14/023,245
Technology Center 3700

Before EDWARD A. BROWN, JAMES P. CALVE, and
BEVERLY M. BUNTING, *Administrative Patent Judges*.

BROWN, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1 and 3–7.² We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42(b). Appellant identifies the real party in interest as LENOVO ENTERPRISE SOLUTIONS (SINGAPORE) PTE. LTD. Appeal Br. 2.

² Claims 2 and 8–20 are cancelled. Appeal Br. (Claims App.).

CLAIMED SUBJECT MATTER

Claim 1 is representative of the claimed subject matter on appeal and is reproduced below with reference letters added in brackets.

1. A method for managing player generated content, the method comprising:

[A] recording player generated content for a game playing session into memory of a computer;

[B] collecting game metrics for the game playing session during the game playing session comprising different accomplishments or milestones recorded in furtherance of a game goal;

[C] comparing the game metrics to one or more pre-stored threshold values;

[D] determining whether or not to discard the player generated content based upon the comparison and storing in fixed storage of the computer only player generated content determined based upon the comparison not to be discarded; and,

[E] naming the player generated content in the fixed storage using at least a portion of the game metrics.

Appeal Br. 21 (Claims App.).

THE REJECTIONS

Claims 1 and 3–7 are rejected under 35 U.S.C. § 101 as directed to patent ineligible subject matter. Final Act. 2.

Claims 1, 3, 5, and 6 are rejected under 35 U.S.C. § 103 as unpatentable over Thompson (US 2004/0225386 A1, pub. Nov. 11, 2004) and Lim (US 2013/0288788 A1, pub. Oct. 31, 2013). Final Act. 7.

Claim 4 is rejected under 35 U.S.C. § 103 as unpatentable over Thompson, Lim, and Yabuki (US 2009/0093313 A1, pub. Apr. 9, 2009). Final Act. 9.

Claim 7 is rejected under 35 U.S.C. § 103 as unpatentable over Thompson, Lim, and McCaffrey (US 2013/0324261 A1, pub. Dec. 5, 2013). Final Act. 10.

Claims 1 and 3–7 are rejected on the ground of non-statutory double patenting as unpatentable over claims 8–20 of Application No. 14/017,293. Final Act. 6.

ANALYSIS

Patent Ineligibility of Claims 1 and 3–7

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[I]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is “directed to.” *See Alice*, 573 U.S. at 219.

Concepts that have been determined to be abstract ideas, and thus patent-ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski v. Kappos*, 561 U.S. 593 (2010)); mathematical formulas (*Parker v. Flook*, 437

U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 69 (1972)).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (quotation marks omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

On January 7, 2019, the PTO issued revised guidance on the application of § 101. *See 2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (hereinafter “2019 Guidance”). The 2019 Guidance includes steps 2A and 2B. Under Step 2A, Prong One, of the guidance, we first look to whether the claim recites any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activities such as a fundamental economic practice, or mental processes). *See id.* at 54.

If a claim recites a judicial exception, we proceed to Step 2A, Prong Two, and determine whether the claim recites additional elements that integrate the judicial exception into a practical application. *See id.*; *see also* MPEP § 2106.05(a)–(c), (e)–(h).

Only if a claim both recites a judicial exception and fails to integrate the judicial exception into a practical application, do we proceed to Step 2B

of the guidance. At this step, we determine whether the claim adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. *See* 84 Fed. Reg. 56.

Claim Grouping

Appellant argues the patent eligibility of claims 1 and 3–7 as a group. Appeal Br. 7–20. We select claim 1 as representative of the group, and claims 3–7 stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Step One – Statutory Category

Claim 1 recites a method, and, accordingly, is directed to one of the statutory classes of subject matter eligible for patenting under 35 U.S.C. §101 (i.e., a process).

Step 2A, Prong One – Recitation of Judicial Exception

We next look to whether claim 1 recites any judicial exceptions, including certain groupings of abstract ideas, that is, mathematical concepts, certain methods of organizing human activities such as a fundamental economic practice, or mental processes.

The Examiner determines that the claims recite an abstract idea; namely, they are directed to managing player generated content using generic computer functions in recording data, recognizing and collecting the

data, and manipulating and organizing the data by a mathematical algorithm. Final Act. 3–4.

We agree with the Examiner that claim 1 recites an abstract idea. Limitation A recites “recording player generated content for a game playing session.” Claim 1 does not specify what game it pertains, or what the player generated content is. Under its broadest reasonable interpretation, limitation A involves recording information generated from a game playing session. Recording of player generated content for a game playing session can be performed through observation, evaluation, or judgment in the human mind or on paper. Acts that can be performed in the human mind fall within the abstract idea exception grouping of mental processes identified in the 2019 Guidance. *See* 2019 Guidance at 52. Thus, limitation A recites a mental process, a judicial exception.

Limitation B of claim 1 recites “collecting game metrics for the game playing session during the game playing session comprising different accomplishments or milestones recorded in furtherance of a game goal.” Under its broadest reasonable interpretation, limitation B involves producing performance information (e.g., performance statistics) for a game playing end user during the game playing session and storing the performance information. *See, e.g.,* Spec. ¶ 15. The recited collecting can be performed through human observation, evaluation, or judgment in the human mind or on paper. Acts that can be performed in the human mind fall within the abstract idea exception grouping of mental processes. *See id.* Thus, limitation B also recites a mental process, which is a judicial exception.

Limitation C of claim 1 recites “comparing the game metrics to one or more pre-stored threshold values.” Under its broadest reasonable

interpretation, limitation C involves comparing the collected game metrics (e.g., performance statistics of the game playing end user) to corresponding pre-stored metric thresholds. *See, e.g.*, Spec. ¶ 16. Limitation C does not recite any limitation as to how the game metrics are compared to the pre-stored threshold values. The recited comparing can be performed through human observation, evaluation, or judgment in the human mind or on paper. Acts that can be performed in the human mind fall within the abstract idea exception grouping of mental processes. *See* 2019 Guidance at 52. Thus, limitation C also recites a mental process, which is a judicial exception.

Alternatively, we construe limitation C as involving comparing values. Paragraph 18 of the Specification, for example, describes that values of the game metrics for a game session can be compared to values of the pre-stored metric threshold. The game metrics can be individual values or summed values (i.e., numerical values). *See, e.g.*, Spec. ¶ 18. Comparing the value(s) of the game metrics to the value(s) of the pre-stored metric threshold reveals a relationship or relationships between these values. According to the 2019 Guidance, mathematical relationships, mathematical formulas or equations, or mathematical calculations fall within the abstract idea exception grouping of mathematical concepts. *See* 2019 Guidance at 52. Thus, limitation C also recites a mathematical concept, another judicial exception.

Limitation D of claim 1 recites “determining whether or not to discard the player generated content based upon the comparison and storing . . . only player generated content determined based upon the comparison not to be discarded.” Under its broadest reasonable interpretation, limitation D relates to responding to the comparison made in limitation C by making a judgment

(i.e., a decision) whether to discard or not discard the player generated content based on the result of the comparison, and retaining only player generated content that is judged not to be discarded. *See, e.g.*, Spec. ¶ 19. We find that the determining and storing features of limitation D can be performed through observation, evaluation, judgment, or opinion in the human mind or on paper. Acts that can be performed in the human mind fall within the abstract idea exception grouping of mental processes. *See* 2019 Guidance at 52. Thus, limitation D also recites a mental process, which is a judicial exception.

Lastly, limitation E of claim 1 recites “naming the player generated content . . . using at least a portion of the game metrics.” We understand limitation E relates to naming player generated content stored in limitation D. This act can be performed through observation, evaluation, or judgment in the human mind or on paper, and thus, falls within the abstract idea exception subgrouping of mental processes. *See* 2019 Guidance at 52. Thus, limitation E also recites a mental process, which is a judicial exception.

Alternatively, we construe limitations A–E of claim 1 as relating to the concept of following rules or instructions in managing player generated content. Particularly, limitations A and B relate to following rules or instructions in recording player generated content for a game playing session and in collecting game metrics for the game playing session during the game playing session. Limitation C relates to following rules or instructions in comparing the game metrics from limitation B to one or more threshold values that have been pre-stored. Limitation D relates to following rules or instructions in determining whether or not to discard the player generated

content based on the comparison made in limitation C, and in retaining only player generated content that is judged not to be discarded. Lastly, limitation E relates to following rules or instructions in naming the player generated content that is stored in limitation D using at least a portion of the game metrics. Following rules or instructions is a form of managing personal behavior or relationships or interactions between people, which falls within the abstract idea exception subgrouping of certain methods of organizing human activity. *See* 2019 Guidance at 52. Thus, each of limitations A–E of claim 1 also recites a method of organizing human activity, which is another judicial exception.

We therefore determine that claim 1 recites the abstract ideas (judicial exceptions) of mathematical concepts, certain methods of organizing human activity, and mental processes, which are judicial exceptions to patent-eligible subject matter. We proceed to Prong Two to determine whether the claim is “directed to” the judicial exception.

Step 2A, Prong Two – Practical Application

We next determine whether claim 1 as a whole integrates the recited judicial exceptions into a practical application of the exceptions by:

(a) identifying whether there are any additional elements recited in the claim beyond the judicial exceptions; and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exceptions into a practical application.

Appellant states that claim 1 requires the performance of the following combination of process steps:

(1) “[p]layer generated content for a game playing session is recorded into memory of a computer”;

(2) “[g]ame metrics are collected for the game playing session during the game playing session that include different accomplishments or milestones recorded in furtherance of a game goal”;

(3) “[t]he game metrics are compared to one or more pre-stored threshold values”; and

[(4)] [i]t is then determined whether or not to discard the player generated content based upon the comparison and only player generated content is stored in fixed storage of the computer as determined based upon the comparison not to be discarded, and the player generated content is stored in the fixed storage using at least a portion of the game metrics.

Appeal Br. 11–13 (quoting Spec. ¶¶ 17–20).

The above process steps 1–4 closely correspond to limitations A–E discussed for Prong One. Appellant’s position is that the evidence of record suggests process steps 1–4 “describe a particular solution to a problem or a particular way to achieve a desired outcome defined by the claimed invention.” Appeal Br. 13. Appellant identifies this problem as managing recorded player generated content. *Id.* (quoting Spec. ¶ 6). Appellant contends that, in contrast, previous methodologies could not address this problem. *Id.* at 13–14 (quoting Spec. ¶ 6). Thus, Appellant contends, claim 1 is directed to a process driven improvement to computer-related technology by providing a particular solution to a problem, or a particular way to achieve a desired outcome defined by the claimed invention. *Id.*

(citing *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016); *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016); *Electric Power Group LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016)).

According to the 2019 Guidance, an additional element or elements that reflect(s) an improvement in the functioning of a computer, or an improvement to other technology or technical field, is indicative that the additional element(s) may have integrated the exception into a practical application. *See* 2019 Guidance at 55. This improvement consideration is also referred to as a technological solution to a technological problem.

Appellant’s Specification describes,

oftentimes, end user players prefer to record portions of player generated content for future review. In this regard, *the player generated content can include performance metrics observed during the course of a game playing session*, or the entirety of the game playing session as viewed by the end user player, or any combination thereof.

Spec. ¶ 5 (emphasis added). This passage discloses that it is known to record player generated content and that this content can include performance metrics observed during the course of a game playing session. Paragraph 6 of the Specification describes, “to the extent an end user plays many game playing sessions over a period of time, *the amount of content recorded can become substantial*. In consequence, managing the recorded player generated content can become an administrative challenge.”

(Emphasis added). Appellant appears to contend that process steps 1–4 describe a particular solution to this problem, or a particular way to achieve a desired outcome defined by the claimed invention.

We are not persuaded. First, the step of “determining whether or not to discard the player generated content based upon the comparison” recited in limitation D in claim 1 appears to depend on the particular pre-stored threshold values used in the comparison. That is, the particular pre-stored threshold values appear to affect the amount of player generated content that is discarded (and not stored).

Second, the language “determining *whether or not* to discard the player generated content based upon the comparison” in limitation D does *not* positively require that *any* player generated content be discarded (and not stored). If, however, no player generated content must be discarded, then it is not apparent how performing limitations A–E would reduce the amount of player generated content stored. And, to the extent reducing the amount of player generated content stored can be considered an improvement in the management of the recorded player generated content, no such improvement is required to result from performing limitations A–E. Accordingly, we are not persuaded that process steps 1–4 reflect an improvement in the functioning of a computer, or an improvement to other technology or technical field.

Third, even assuming that performing limitations A–E of claim 1 would reduce the amount of player generated content stored, this reduction would seem to correspond to an improvement to the information stored in a storage of a computer, and only insofar as reducing the *amount* of information stored improves the stored information. Appellant’s contentions do not persuade us that performing limitations A–E changes *how* information is stored in the computer. However, “an improvement to the information stored by a database is not equivalent to an improvement in the

database's functionality.” *See BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1288 (Fed. Cir. 2018). Here, reducing the amount of player generated content stored in fixed storage appears to be a result that flows from performing an abstract idea in conjunction with a generic database structure, rather than an improvement to functionality of the database itself, or an improvement in the functioning of the computer itself.

Applying the 2019 Guidance, in addition to the judicial exceptions identified above in Prong One, claim 1 further recites “memory of a computer” and “fixed storage of the computer.” We note, however, that paragraphs 17, 18, and 28 of the Specification describe the gaming data processing system at a high level. Appellant has not shown that the recited additional elements are particular elements or machines and more than generic elements. Absent persuasive evidence to the contrary, we determine that claim 1 merely uses generic components as a tool to perform the recited abstract ideas. *See* MPEP § 2106.05(f).

Considered as a whole, claim 1, under its broadest reasonable interpretation, involves managing player generated content in a game following rules or instructions and recites processes and concepts that can be performed in the human mind or by hand. The recited steps are similar to other processes that courts have determined to be mental processes. *See, e.g., CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) (determining that a claim whose “steps can all be performed in the human mind” is directed to an unpatentable mental process). The recitation of computer components does not, by itself, establish that the claim does *not* recite mental steps. *See, e.g., Versata Dev. Grp. Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1335 (Fed. Cir. 2015) (“Courts have examined

claims that required the use of a computer and still found that the underlying, patent-ineligible invention could be performed via pen and paper or in a person's mind."); *CyberSource*, 654 F.3d at 1375, 1372 (holding that the incidental use of "computer" or "computer readable medium" does not make a claim otherwise directed to process that "can be performed in the human mind, or by a human using a pen and paper" patent eligible.) Also, "performance of a claim limitation using generic computer components does not necessarily preclude the claim limitation from being in the mathematical concepts grouping, *Benson*, 409 U.S. at 67, or the certain methods of organizing human activity grouping, *Alice*, 573 U.S. at 219–20." See 2019 Guidance at 52 n. 14 (emphasis omitted). "If a claim, under its broadest reasonable interpretation, covers performance in the mind but for the recitation of generic computer components, then it is still in the mental processes category unless the claim cannot practically be performed in the mind." *Id.*

Appellant also contends that the claimed "particular process" "definitively does not foreclose all possible methodologies for achieving the abstract concept of managing player generated content" (Appeal Br. 18) and the claims "are restricted as to how the innovative concept of 'managing player generated content' is achieved without foreclosing other ways of solving the problem at hand while reciting a specific series of steps that result in a departure from the routine and conventional sequence of events" (*id.* at 20). Even if these contentions are correct, however, "preemption may signal patent ineligible subject matter, [but] the absence of complete preemption does not demonstrate patent eligibility." *Ariosa Diagnostics*,

Inc. v. Sequenom, Inc., 788 F.3d 1371, 1379 (Fed. Cir. 2015). Accordingly, this argument is unpersuasive.

For these reasons, we determine that claim 1 does not recite an additional element, or a combination of additional elements, apart from the limitations reciting an abstract idea that applies, relies on, or uses the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the exception. Thus, the judicial exceptions are not integrated into a practical application, and the claim is “directed to” the judicial exceptions. *See* 2019 Guidance at 54. Accordingly, we proceed to determine whether claim 1 recites an “inventive concept.”

Step 2B – Inventive Concept

For Step 2B of the analysis, we determine whether the claim adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field. *See* 2019 Guidance.

The Examiner concludes that claim 1 does not include any additional elements that are sufficient to amount to significantly more than the abstract idea itself. Final Act. 4–5.

Appellant contends that the Examiner has not conducted a proper analysis under *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1369 (Fed. Cir. 2018). Reply Br. 5. Appellant disputes that the claim language merely reflects a technology that is well-understood, routine, and conventional. *Id.* at 5–6. Appellant contends that the Examiner has improperly compared only un-claimed elements to court decisions. *Id.* at 7–8. Appellant contends that

claim 1 specifically recites claim elements (which, we note, correspond closely to limitations A–E discussed above for Step 2A) (*id.* at 8), but the Examiner has not compared these claim elements to any cited court decision (*id.* at 9).

Appellant’s contentions are not persuasive. Limitations A–E of claim 1 recite abstract ideas. Consequently, Appellant is relying on the application of the abstract ideas themselves as the alleged inventive concept. Appellant does not show persuasively that the claimed abstract ideas are applied using techniques that are not conventional and well-understood. However, a claim’s “use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention ‘significantly more’ than that ineligible concept.” *Buyseasons*, 899 F.3d at 1290; *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016) (“[A] claim for a *new* abstract idea is still an abstract idea.”).

We agree with the Examiner that the claimed method merely uses generic components as a tool to perform the abstract ideas. *See, e.g.*, Spec. ¶¶ 17, 18, 28, 29. This does not transform the claim into a patent-eligible application of the abstract idea. *Alice*, 573 U.S. at 212. Thus, we sustain the rejection of claim 1 under 35 U.S.C. § 101. Claims 3–7 fall with claim 1.

Obviousness of Claims 1, 3, 5, and 6 over Thompson and Lim

Appellant contends that the combination of Thompson and Lim fails to teach the limitation of “naming of the player generated content in the fixed storage using at least a portion of the game metrics,” where the game metrics “include different accomplishments or milestones recorded in furtherance of the game goal,” as required by claim 1. Appeal Br. 4.

Appellant contends that paragraphs 48 and 50 of Thompson do not teach the “naming” limitation. *Id.* at 4–6. Appellant contends that paragraph 48 refers to an access token 402, which “provides ‘permission’ to a player (or game console user) to upload data to, for example, the storage server.” *Id.* at 5. Appellant contends that the access token cannot be “player generated content.” *Id.* Appellant contends that paragraph 50 refers to a “leaderboard” that identifies rankings for different players and corresponding performance data, but does not suggest that the leaderboard is named in fixed storage using at least a portion of a game metric. *Id.* at 5–6.

The Examiner responds that Thompson discloses that a server creates a leaderboard on which the player’s name, ranking, and additional “game metrics” are displayed. Ans. 10 (citing Thompson, Figs. 4, 5). The Examiner concedes that “Thompson does not explicitly disclose game metrics for milestones recorded in furtherance of a game goal.” *Id.* The Examiner finds that Lim teaches a gaming application that creates a leaderboard associated with the gameplay, and that “[v]arious game metrics that can be tracked by a leaderboard include scores (e.g. high score for a game or a level within a game), time (e.g., fastest overall time, fastest lap time), rank, milestone or objective reached (e.g., completion of a quest, treasure collected, enemy vanquished).” *Id.* at 10–12. Appellant replies that the Examiner does not refer to any teaching in Lim of naming a file using this information. Reply Br. 4. Therefore, Appellant contends, the combination of Thompson and Lim does not suggest naming player generated content in fixed storage using at least a portion of the game metrics, as claimed. *Id.*

To the extent Appellant may be contending that claim 1 requires naming a “file” associated with the player generated content “using at least a portion of the game metrics,” claim 1 does not expressly recite such limitation. Nonetheless, we are persuaded that the Examiner has not explained adequately based on evidence how the combination of Thompson and Lim discloses or suggests naming player generated content in a fixed storage using at least a portion of the game metrics, as required by claim 1. Accordingly, we do not sustain the rejection of claims 1, 3, 5, and 6 as unpatentable over Thompson and Lim.

Obviousness of Claim 4 over Thompson, Lim, and Yabuki

Obviousness of Claim 7 over Thompson, Lim, and McCaffrey

The Examiner’s reliance on Yabuki in rejecting claim 4 (Final Act. 9–10) and McCaffrey in rejecting claim 7 (*id.* at 10–11) fails to cure the deficiency in the rejection of parent claim 1 over Thompson and Lim. Thus, we do not sustain the rejection of claim 4 as unpatentable over Thompson, Lim, and Yabuki, or claim 7 as unpatentable over Thompson, Lim, and McCaffrey.

Non-statutory Double Patenting of Claims 1 and 3–7

Appellant states, “to the extent that a terminal disclaimer has been filed in connection with co-pending United States Patent Application Serial No. 14/017,293, the foregoing rejection is believed to be moot.” As the Examiner’s Answer does not indicate that this rejection has been withdrawn, we sustain the rejection of claims 1 and 3–7 on the ground of non-statutory

double patenting as unpatentable over claims 8–20 of Application No. 14/017,293.

CONCLUSION

In summary:

Claims Rejected	Basis	Affirmed	Reversed
1, 3–7	§ 101	1, 3–7	
1, 3, 5, 6	§ 103 Thompson, Lim		1, 3, 5, 6
4	§ 103 Thompson, Lim, Yabuki		4
7	§ 103 Thompson, Lim, McCaffrey		7
1, 3–7	Non-statutory Double Patenting	1, 3–7	
Overall Outcome		1, 3–7	1, 3–7

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

AFFIRMED