

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HIGH 5 GAMES, LLC,
Petitioner,

v.

KONAMI GAMING, INC.,
Patent Owner.

Case IPR2015-01936
Patent 8,366,540 B2

Before JOSIAH C. COCKS, MEREDITH C. PETRAVICK, and
MITCHELL G. WEATHERLY, *Administrative Patent Judges*.

WEATHERLY, *Administrative Patent Judge*.

DECISION

Denying Institution of *Inter Partes* Review
35 U.S.C. § 314, 37 C.F.R. §§ 42.4, 42.108

I. INTRODUCTION

A. BACKGROUND

High 5 Games, LLC (“High 5”) filed a petition (Paper 1, “Pet.”) to institute an *inter partes* review of claims 1–11, 13, 16, and 21–26 (the “challenged claims”) of U.S. Patent No. 8,366,540 B2 (Ex. 1001, “the ‘540 patent”). 35 U.S.C. § 311. Konami Gaming, Inc. (“Konami”) timely

filed a Preliminary Response. Paper 7 (“Prelim. Resp.”). Institution of an *inter partes* review is authorized by statute when “the information presented in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a); 37 C.F.R. § 42.108. Based on our review of the record, we conclude that High 5 is not reasonably likely to prevail with respect to at least one of the challenged claims.

High 5 contends that the challenged claims are unpatentable under 35 U.S.C. § 103 based on the following grounds (Pet. 12–59):

References	Claims challenged
U.S. Patent Application No. 2003/0181240 A1 (Ex. 1004, “Nagao”) in view of U.S. Patent No. 8,246,047 B1 (Ex. 1005, “Sekine”)	1–11, 13, 16, and 21–26
U.S. Patent No. 6,159,096 (Ex. 1006, “Yoseloff”) in view of Sekine	1–11, 13, 16, and 21–26
Nagao in view of U.S. Patent No. 8,360,840 B2 (Ex. 1007, “Bennett”)	1–11, 13, 16, and 21–26
Yoseloff in view of Bennett	1–11, 13, 16, and 21–26

Generally, Konami contends that the Petition should be denied in its entirety. For the reasons described below, we decline to institute *inter partes* review of the challenged claims on any of the alleged grounds of unpatentability.

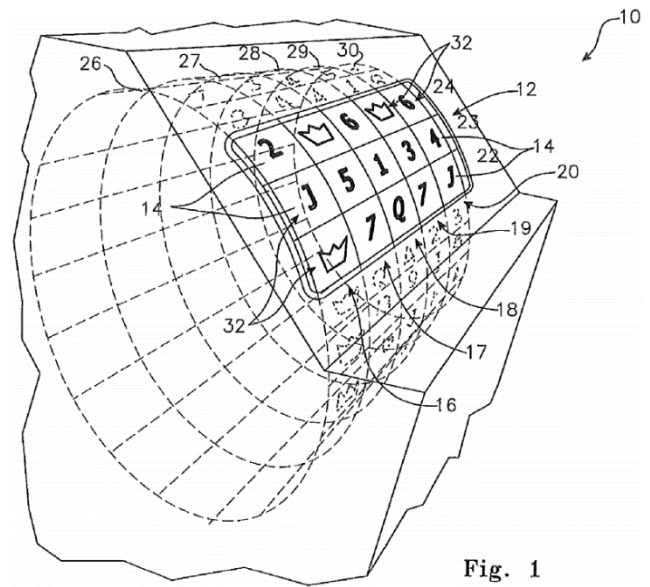
B. RELATED PROCEEDINGS

High 5 identified as a related proceeding the co-pending district court proceeding of *Konami Gaming, Inc. v. PTT, LLC, d/b/a High 5 Games*, Case

No. 2:14-cv-01483-RFB-NJK (D. Nev.). Pet. 58. Konami identified the following additional matters as being related to this proceeding: *Konami Gaming, Inc. v. Marks Studios, LLC d/b/a Gimmie Games*, Case No. 2:15-cv-01485 (D. Nev.); IPR2015-01935 regarding related U.S. Patent No. 8,096,869 B2; IPR2015-01937 regarding related U.S. Patent No. 8,616,955 B2; and IPR2015-01939 regarding related U.S. Patent No. 8,622,810 B2. Paper 6, 2.

C. THE '540 PATENT

The '540 patent is titled “Gaming Machine with Runs of Consecutive Identical Symbols” and issued on February 5, 2013, from an application filed on December 9, 2011. Ex. 1001, [22], [45], [54]. The '540 patent discloses a gaming machine for the playing of games of chance. *Id.* at 1:16–17. Figure 1 of the '540 patent, which depicts gaming machine 10, is reproduced at right. *Id.* at 4:14–16. Gaming machine 10 has display 12, which shows portions of adjoining simulated reels 26–30. *Id.* The simulated reels are divided into a number of elements 14, such as 256 elements, and each element displays one symbol 32. *Id.* at 4:16–23.



In one embodiment, the sequence of symbols in the element remains fixed except for, on the first or left-most reel, at least one run of identical symbols in each of a number of consecutive elements. *Id.* at 4:23–25, 4:33–46. Figure 2 of the '540 patent is reproduced below.

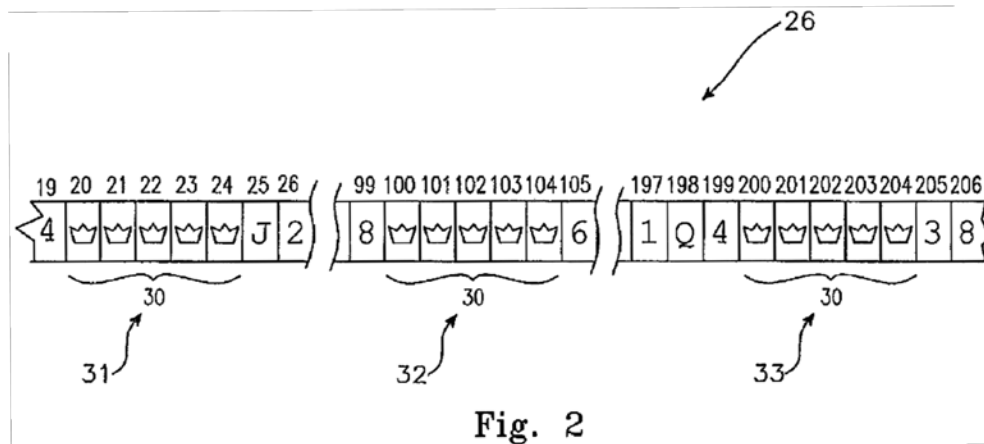


Figure 2 depicts a schematic representation of the symbols of simulated reel 26. Simulated reel 26 has three runs 31, 32, and 33 of five elements having identical crown symbols. *Id.* at 4:33–48. The selection of the identical symbol is made “through a notional rotation of an ‘inner reel,’” which “is in effect a look-up table and is not displayed.” *Id.* at 4:52–57. The selection of the identical symbol is performed anew for each new play of the game. *Id.* at 4:65–5:2. The identical symbol is selected from a subset of game symbols that appear on simulated reel 26 and each symbol in the subset is assigned a probability of selection. *Id.* at 4:58–61, 5:3–9; Fig. 3.

As the reels spin during a play of the games, a player will notice the runs of identical symbols passing through the display and have a heightened interest because the odds of a winning arrangement appearing on the display will increase. *Id.* at 5:10–16. In an alternative embodiment, simulated reels 27–30 of gaming machine 10 may also have at least one run of consecutive identical elements. *Id.* at 5:21–6:3.

The '540 patent has two independent claims. Independent claim 1 recites a gaming machine, Ex. 1001, 7:56, and independent claim 19 recites a “method for increasing probability of a winning outcome on a gaming

machine,” *id.* at 9:15–16. Claim 1 is illustrative of the subject matter at issue and is reproduced below with line breaks inserted for clarity.

1. A gaming machine comprising:

a display device; and,

a processor configured to execute a game displaying, on said display device, a matrix of symbol containing elements having a plurality of rows and a plurality of columns;

wherein at least one column of said matrix comprising a portion of a simulated rotatable reel of a plurality of said symbol containing elements;

wherein said simulated rotatable reel comprising sections of symbol containing elements displaying a plurality of symbols;

wherein said simulated rotatable reel including at least one section in which a consecutive run of two or more of said symbol containing elements is populated by a first identical symbol;

wherein said first identical symbol is used for a first play of said game;

wherein a second identical symbol is randomly selected, and

wherein the first identical symbol is replaced by the second identical symbol in said consecutive run of two or more of said symbol containing elements, said second identical symbol being used for a second play of said game.

Id. at 7:56–8:11.

II. ANALYSIS

A. CLAIM INTERPRETATION

“A claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears.”

37 C.F.R. § 42.100(b); *see also In re Cuozzo Speed Techs., LLC*, 793 F.3d

1268, 1278 (Fed. Cir. 2015), *cert. granted sub nom., Cuozzo Speed Techs. LLC v. Lee*, 84 U.S.L.W. 3218 (Jan. 15, 2016) (No. 15-446) (“We conclude that Congress implicitly approved the broadest reasonable interpretation standard in enacting the AIA.”). When applying that standard, we interpret the claim language as it would be understood by one of ordinary skill in the art in light of the specification. *In re Suitco Surface, Inc.*, 603 F.3d 1255, 1260 (Fed. Cir. 2010). Thus, we give claim terms their ordinary and customary meaning. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007) (“The ordinary and customary meaning ‘is the meaning that the term would have to a person of ordinary skill in the art in question.’”). Only terms which are in controversy need to be construed, and then only to the extent necessary to resolve the controversy. *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

High 5 proposes interpretations for “randomly selected anew,” “notional, non-visible, inner reel,” “virtual rotation,” “virtually spinning,” “subset of a said plurality of symbols,” “fixed for each game played,” “identical symbol,” and “probability of selection.” Pet. 8–12. Konami either disputes High 5’s proposed interpretations or argues that the terms do not require explicit interpretation. Prelim. Resp. 2–19. We conclude that no explicit interpretation of any of these terms is necessary to resolve issues presented by the parties at this stage of the proceeding.

B. THE CHALLENGES TO THE CLAIMS

High 5 challenges the patentability of claims 1–11, 13, 16, and 21–26 on the grounds that the claims are obvious in light of either Nagao or Yoseloff combined with either Sekine or Bennett. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), reaffirmed the

framework for determining obviousness as set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966). The *KSR* Court summarized the four factual inquiries set forth in *Graham* that we apply in determining whether a claim is reasonably likely to be unpatentable as obvious under 35 U.S.C. § 103(a) as follows:

1. determining the scope and content of the prior art,
2. ascertaining the differences between the prior art and the claims at issue,
3. resolving the level of ordinary skill in the pertinent art, and
4. considering objective evidence indicating obviousness or nonobviousness.

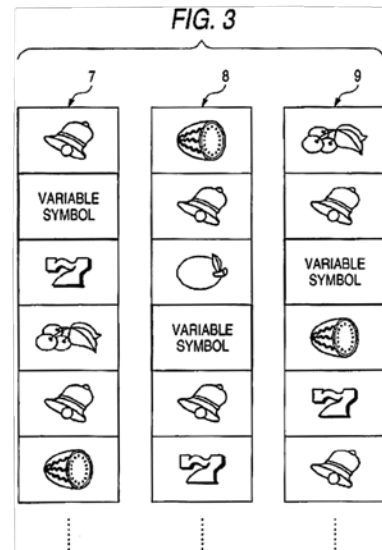
KSR, 550 U.S. at 406. A determination of obviousness cannot be based on mere conclusory statements; “instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). With these standards in mind, we address each challenge below.

1. Overview of the Asserted Prior Art

a) Nagao

Nagao is a U.S. patent application publication titled “Method of Controlling Gaming Machine, Gaming Machine, and Gaming Machine Control Program.” Ex. 1004, [54]. Nagao discloses a gaming machine that displays symbols in symbol display sections 7–9. *Id.* ¶ 83. A player wins the game when a predetermined combination of symbols is displayed on a

pay line. *Id.* ¶ 85. Figure 3 of Nagao is reproduced at right and depicts a layout of symbol display sections 7–9. *Id.* ¶ 75. The symbols are selected by a lottery device. *See id.* ¶¶ 53, 125. The Figure illustrates that the symbols in display sections 7–9 include a variable symbol in one of the display positions on the reel. *Id.* ¶ 92. When the variable symbol stops on the pay line, Nagao randomly selects a value from 0 to 9 to appear for that variable symbol. *Id.* ¶¶ 92–93. In this regard, Nagao states:



Namely, at the moment of operating the start lever 11, the symbol to be displayed and stopped on the symbol display sections 7 to 9 is determined by the selection. When the variable symbol is to be displayed and stopped according to the result of the selection, the further selection is performed to determine the numeral from the range of 0 to 9. Specifically, it is determined to display and stop the variable symbol on the active line (i.e. pay line) of the symbol display section 7 according to the selection, one numeral is determined from the range of 0 to 9. Further, it is determined to display and stop the variable symbol on the active line (i.e. pay line) of the symbol display section 8 according to the selection, one numeral which is equal to or greater than the numeral determined at the symbol display section 7 and falls within range of 0 to 9 is determined. Further, it is determined to display and stop the variable symbol stand still on the active line (i.e. pay line) of the symbol display section 9 according to the selection, one numeral which is equal to or greater than the numeral determined at the symbol display section 8 and falls within range of 0 to 9 is determined. For these determining processing, the CPU 30 executes the program while transmitting and receiving the signal to and from the ROM 31, RAM 32 and the random number generating circuit 34. Therefore, these processing is performed in an instant.

Id. ¶ 93.

b) Yoseloff

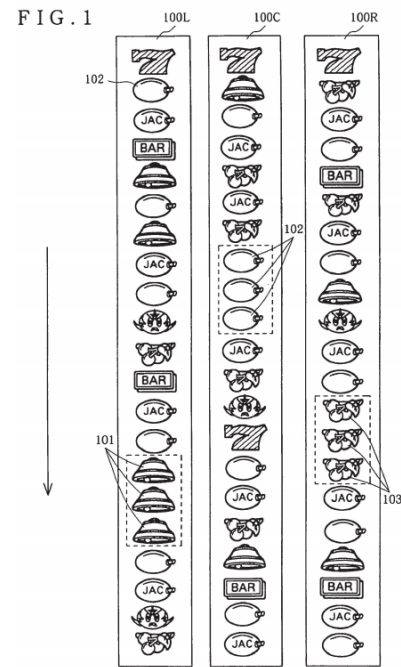
Yoseloff is a U.S. patent titled “Method and Apparatus for Configuring a Slot-type Wagering Game.” Ex. 1006, [54]. Yoseloff disclose an electromechanical reel-slot wagering device that has a plurality of mechanical reels rotatable about a central axis and mounted for rotation in a cabinet, a visual display with a pay line, and a microprocessor. *Id.* at 4:21–26, 5:20–26. “Electromechanical reel-slot machines are equipped with random number generators which select numbers assigned to each angular position on the reel. Electromechanical reel-slot machines include a device to stop the reel at the selected angular position.” *Id.* at 1:66–2:3. Yoseloff’s preferred embodiment has three mechanical reels with twenty physical reel-stop positions and “[t]he microprocessor determines the symbols that will be displayed, and then instructs a braking device to stop the reel at a position corresponding to the selected symbol.” *Id.* at 5:30–35, 12:60–61.

The microprocessor is programmed with a plurality of game outcome templates, which are “a combination of X variables which are defined by the random selection of symbols from a subset of game symbols assigned to the selected template.” *Id.* at 4:29–31, 4:60–61, 6:38–41. Each outcome template represents one or more possible combinations of symbols, some of which produce a win, from which the microprocessor selects an outcome for a game. *See id.* at 6:41–43, 13:7–9.

c) Sekine

Sekine is a U.S. patent titled “Display for Game and Gaming Machine.” Ex. 1005, [54]. Sekine discloses a gaming machine, such as a pachinko gaming machine or a slot machine. *Id.* at 1:7–9. The gaming machine has three rotatable reels 4L, 4C, 4R in a cabinet with reel sheets

100L, 100C, and 100R attached to the three rotatable reels. *Id.* at 5:26–28, 6:20–26. The gaming machine also has display window 3 having a plurality of winning lines 5. *Id.* at 6:8–10, Fig. 2. Figure 1 of Sekine is reproduced at right and depicts reel sheets 100L, 100C, and 100R. Arranged on the reel sheets are a predetermined sequence of a plurality of symbols. *Id.* at 5:28–33. The Figure illustrates that the sequence includes a set of sequential identical symbols, such as a bell, plum, or cherry. *Id.* at 3:36–49, 5:50–58.

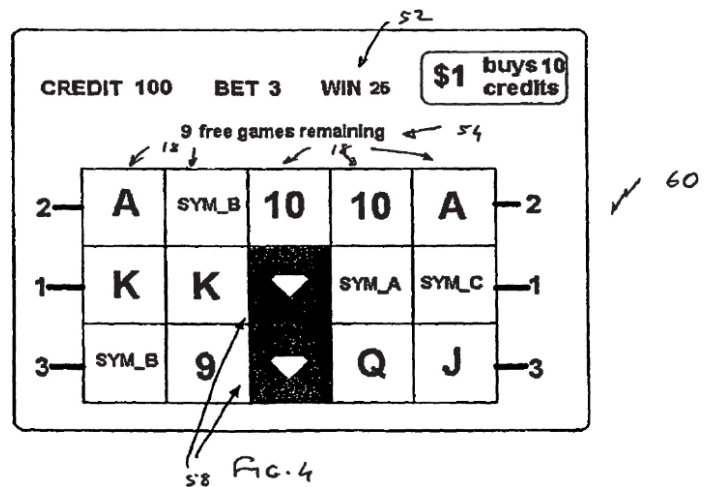


A player can sequentially stop the three reels from rotating using three stop buttons 6L, 6C, and 6R. *Id.* at 6:43–46. For example, a player may first push button 6L and stop reel 4L at a time when a plum symbol appears in a winning line of display window 3. *Id.* at 6:53, Fig. 3. The player next attempts to push button 6C to stop reel 4C at a time when one of the three plum symbols of reel 4C appears on the winning line. *Id.* at 6:62–7:4, Fig. 4. The player then attempts to win by pushing button 6R so that reel 4R stops at a time when a plum symbol appears on the winning line. *Id.* at 7:15–17, Fig. 5. Recognition of symbols becomes easier for a player because of the sequential placement of a plurality of identical symbols. *Id.* at 8:27–30. A player can try to stop the reel so that one of the identical symbols is or is not on the pay line as needed to form a winning combination. *See id.* at 8:33–52.

d) Bennett

Bennett is a U.S. patent titled “Gaming Machine with Enhanced Feature Indicator.” Ex. 1007, [54]. Bennett discloses a gaming machine with a display and gaming controller that controls images of symbols on the display during games. *Id.* at 1:43–46. Bennett describes a spinning reel game, which simulates the rotation of a number of spinning reels, with a bonus feature. *Id.* at 2:15–16, 3:48–49. The bonus feature may be a series of free spinning reel games with a special symbol substituted for an existing symbol on a reel. *Id.* at 2:15–26. The substitute symbol may be “positioned adjacent a prior occurrence of the substitute symbol on the reel strip so that it becomes, visually, readily apparent to the player that at least one further substitute symbol has been

added.” *Id.* at 2:33–37. Figure 4, reproduced at right, depicts a display screen after a first bonus game following a base game. *Id.* at 3:33–34. As can be seen from the above, the display screen shows two consecutive substitute



diamond symbols 58. *Id.* at 4:36–37; 5:39–41. For successive bonus games, more consecutive substitute symbols may be added to the reel to increase the chances of winning. *Id.* at 6:14–59.

2. Obviousness in View of Nagao and Sekine

High 5 contends that claims 1–11, 13, 16, and 21–26 are unpatentable as obvious over a combination of Nagao and Sekine. Pet. 15–27. It is not

disputed that Nagao fails to disclose a reel having a consecutive run of two or more identical symbols. High 5 relies upon Sekine as describing this claim limitation. Pet. 15–16 (citing Ex. 1005, 5:22–24, 5:47–49). Sekine discloses reel sheets attached to mechanical reels. Ex. 1005, 5:26–28, 6:20–26. Arranged on the reel sheets are a predetermined sequence of a plurality of symbols, which includes a set of sequential identical symbols, such as a bell, plum, or cherry. *Id.* at 3:36–49, 5:28–33, 5:50–58.

Recognizing that Sekine does not disclose randomly selecting identical symbols for a second play of the game, High 5 relies upon Nagao to teach this limitation. Pet. 18–19 (citing Ex. 1004 ¶ 93). High 5 equates Nagao’s variable symbol to the claimed randomly selected second identical symbol. Pet. 19.

Konami persuasively argues that neither Nagao nor Sekine describe randomly selecting any symbol for “a second play” of the game as required in both independent claims. Prelim. Resp. 28–31. Sekine describes mechanical reels having a fixed set of symbols that never change during game play. Ex. 1005, 5:31–46. Nagao describes a reel that includes a position occupied by a “variable symbol.” Ex. 1004 ¶ 92. Nevertheless, the value of Nagao’s “variable symbol” is not randomly selected for every game. Rather, Nagao randomly selects the value of its variable symbol only when its reel stops with the variable symbol on the “pay line.” Ex. 1004 ¶¶ 92, 93, 97, 98.

Independent claim 1 recites that “a second identical symbol is randomly selected,” “the first identical symbol is replaced by the second identical symbol,” and the “second identical symbol is used for a second play” of the game. Ex. 1001, 8:6–11. Independent claim 21 similarly recites

a method that must “randomly select a second identical symbol; and replace the first identical symbol by the second identical symbol,” with the “second identical symbol being used for a second play” of the game. *Id.* at 9:27–31. Nagao may or may not select a value for its variable symbol during any particular play of the game. The claims of the ’540 patent, however, require more, namely, that “for a second play” of the game, the first identical symbol is replaced by a randomly selected second identical symbol. We conclude that combination of Nagao and Sekine fails to describe this requirement of the challenged claims. This reason alone warrants a denial of High 5’s challenge to claims 1–11, 13, 16, and 21–26 as being unpatentable as obvious in view of the combination of Nagao and Sekine.

Additionally, we conclude that High 5 fails to provide adequate rationale for why a skilled artisan would have found it obvious to randomly select the second identical symbol that replaces the first identical symbol for a second play of the game in light of the teachings of Nagao and Sekine.

High 5 contends:

It would have been obvious to a [skilled artisan] to use the express suggestion in Nagao to combine its random selection lottery system, performed by a microprocessor, with a machine that allows for the stoppage of symbols in a column by displaying rows of those symbols, like Sekine, to arrive at the claimed invention in the ’540 Patent.

Pet. 16 (citing Ex. 1008 ¶¶ 49–61, 75–80). High 5 further argues that “it would have been obvious to apply the randomized generation of symbols in Nagao with the displaying of sequential identical symbols in Sekine with a reasonable expectation of successfully increasing player interest.” *Id.* (citing Ex. 1008 ¶¶ 49–61, 75–80).

Similarly, Dr. Bertram testifies:

it would have been obvious to [a skilled artisan] at the time of invention to combine (i) Nagao’s “random number generating circuit” to select symbols from a range of symbols to fill variable symbol positions in the display “at the moment of operating the start lever” (Nagao [0093]) with (ii) Sekine’s consecutive run of identical symbols on the simulated rotatable reel as claimed in Claim 1.

Ex. 1008, ¶ 83; *see also id.* ¶ 113 (stating substantially same opinion regarding independent claim 21). As can be seen from the above, High 5 and Dr. Bertram assert that a skilled artisan would combine Nagao and Sekine, but they fail adequately to explain how or why it would have been obvious to a skilled artisan to combine Nagao and Sekine to arrive at the claimed simulated reel that has a first group of two or more consecutive identical symbols that is replaced for a second play of the game by a second group of two or more of a randomly selected identical symbol as required in both independent claims 1 and 21.

For the reasons expressed above, we conclude that High 5 has failed to demonstrate a reasonable likelihood of establishing that the combination of Nagao and Sekine renders claims 1–11, 13, 16, and 21–26 unpatentable as obvious.

3. Obviousness in View of Nagao and Bennett

High 5 contends that the combination of Nagao and Bennett renders claims 1–11, 13, 16, and 21–26 unpatentable as obvious. Pet. 37–48. High 5 relies upon Nagao for the same purposes as set forth in its challenge to the claims based upon Nagao and Sekine. *Compare id.* at 37–48 with *id.* at 15–27. High 5 relies upon Bennett as teaching the claimed “consecutive run of two or more” of an “identical symbol.” *Id.* at 40 (citing Ex. 1007,

2:33–37, 2:55–64). Bennett also describes varying a reel to add consecutive “DIAMOND” symbols during “bonus games” to increase the chance of that reel stopping on a “DIAMOND” symbol. Ex. 1007, 5:34–7:2. Accordingly, we determine that Bennett discloses a reel having a consecutive run of two or more identical symbols.

High 5 reasserts its contention that Nagao describes randomly selecting a “second identical symbol” for the “second play” of the game. Pet. 41 (claim 1), 46 (claim 21). As we explained in part II.B.2 above, we determine that Nagao fails to describe randomly selecting any symbol anew for each play of the game as required in all challenged claims. As with High 5’s challenge based on Nagao and Sekine, High 5 and Dr. Bertram assert that a skilled artisan would combine Nagao with Bennett, but they fail adequately to explain how or why it would have been obvious to a skilled artisan to combine Nagao with Bennett to arrive at the claimed simulated reel that has a group of three consecutive identical symbols that is randomly selected anew for each play of the game as required in both independent claims 1 and 21. Accordingly, we conclude that High 5 has failed to demonstrate a reasonable likelihood of establishing that the combination of Nagao and Bennett renders claims 1–11, 13, 16, and 21–26 unpatentable as obvious.

4. Obviousness in View of Yoseloff with Either Sekine or Bennett

High 5 contends that claims 1–11, 13, 16, and 21–26 are unpatentable over Yoseloff and Sekine, Pet. 27–36, and, alternatively, that those claims are unpatentable over Yoseloff and Bennett, *id.* at 48–58. Konami disputes High 5’s contention by arguing that none of Yoseloff, Sekine, or Bennett discloses a simulated reel having a consecutive run of two or more identical

symbols that is randomly selected anew for each play of the game. Prelim. Resp. 38–42. High 5 relies upon Yoseloff as disclosing the claimed random selection of the second identical symbol. Pet. 30–31, 50–51 (citing Ex. 1006, 4:63–67, 10:13–20, 12:42–47, 13:3–7, 13:10–14). According to High 5, “in Yoseloff, reel templates contain positional restrictors (symbol changers) that are initially activated before populating the rest of the reel.” Pet. 30–31. High 5 contends that Yoseloff, therefore, meets the limitation in all claims that the “identical symbol is a variable symbol between games.” *Id.*

High 5’s argument is not persuasive. Yoseloff discloses mechanical reels with physical reel-stop positions and a microprocessor that then instructs a braking device to stop the reel at a reel-stop position corresponding to selected symbols. Ex. 1006, 5:30–35, 12:60–61. Yoseloff also discloses “outcome templates,” which are “a combination of X variables which are defined by the random selection of symbols from a subset of games symbols assigned to the selected template.” *Id.* at 4:29–31, 4:60–61, 6:38–41. Each outcome template represents one or more possible combinations of symbols, some of which produce a win. *See id.* at 6:41–43, 13:7–9. The microprocessor selects the symbols at which to stop each reel. *See id.* at 12:49–13:9. The symbols on Yoseloff’s fixed mechanical reels, however, never change during game play. Yoseloff’s “outcome templates” are merely a mechanism to tailor the probability of winning the game by permitting the casino to define what constitutes a winning combination. It is undisputed that neither Sekine nor Bennett disclose randomly selecting any symbol on their respective reels.

Accordingly, we conclude that High 5 has failed to demonstrate a reasonable likelihood of establishing that the combinations of Yoseloff with either Sekine or Bennett render claims 1–11, 13, 16, and 21–26 unpatentable as obvious.

III. ORDER

For the reasons given, it is:

ORDERED that High 5's Petition for *inter partes* review of the patentability of claims 1–11, 13, 16, and 21–26 of the '540 patent is *denied*.

IPR2015-01936
Patent 8,366,540 B2

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