

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LIGHT & WONDER, INC.
Petitioner

v.

EVOLUTION MALTA LIMITED
Patent Owner

U.S. Patent No. 11,756,371

PETITION FOR *INTER PARTES* REVIEW

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EX1008	U.S. Pre-Grant Pub’l. No. 2016/0155296 (published June 2, 2016) to Baron (“Baron”)
EX1009	U.S. Patent No. 9,600,974 to Yee (“Yee”)
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EX1013	<i>Determine</i> , The American Heritage Dictionary of the English Language, 5th Ed.
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EX1015	Complaint, <i>Evolution Malta Ltd. v. Light & Wonder, Inc.</i> , No. 2:24-cv-00993 (D. Nev. May 8, 2024)
EX1016	U.S. Patent No. 7,674,172 to Miltenberger (“Miltenberger”)
EX1017	U.S. Patent No. 9,646,459 to Hsu (“Hsu”)
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- EX1019 U.S. Patent No. 5,540,442 to Orselli (“Orselli”)
- EX1020 Chart Comparing Independent Claims 1, 9, and 17 of the ’014 Patent
- EX1021 Chart Comparing Dependent Claims of the ’014 Patent
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- EX1024 Chart Comparing Independent Claims 1, 8, and 15 of the ’024 Patent
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- EX1026 U.S. Pre-Grant Pub’l. No. 2011/0006477 (published Jan. 13, 2011) to Miller (“Miller”)
- EX1027 WO 2015/139088 A1 to Witty (“Witty”)
- EX1028 U.S. Pre-Grant Pub’l. No. 2008/0242393 (published Oct. 2, 2008) to Kido (“Kido 393”)
- EX1029 U.S. Pre-Grant Pub’l. No. 2007/0060262 (published Mar. 15, 2007) to Kosaka (“Kosaka”)
- EX1030 Chart Comparing Independent Claims 1, 11, and 21 of the ’371 Patent
- EX1031 Chart Comparing Dependent Claims of the ’371 Patent
- EX1032 JOHN SCARNE, SCARNE’S NEW COMPLETE GUIDE TO Gambling (1st Fireside ed. 1986)
- EX1033 *Roulette*, CAESARS (1996),
https://web.archive.org/web/19961031041803fw_/http://www.caesars.com/GamingGuide/Roulette.Content.html
- EX1034 *Roulette*, MICROGAMING SYSTEMS (1999),
<https://web.archive.org/web/19990503024445/http://www.microgaming.com:80/html/roulette.html>

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- EX1035 Richard Marosi, *Casino Boss Can't Cash In On Game He Developed*, L.A. TIMES (Nov. 3, 2002)
- EX1036 Andrew W. Scott, *Baccarat Without the Juice*, GAMING (Jan./Feb. 2013)
- EX1037 Rakesh Wadhwa, NO-COMMISSION BACCARAT (2d ed. 2006)
- EX1038 U.S. Patent No. 4,836,553 to Suttle ("Suttle")
- EX1039 U.S. Patent No. 5,288,081 to Breeding ("Breeding")
- EX1040 U.S. Patent No. 5,685,774 to Webb ("Webb")
- EX1041 Letter from Keith Cooper, State of Nevada Gaming Control Board to John Piccoli, D.P. Stud, Incorporated, approving the operation of "E Z Baccarat" (Dec. 24, 2003)
- EX1042 U.S. Patent No. 7,435,172 to Hall ("Hall")
- EX1043 Ultimate Texas Hold 'Em, U.S. Trademark Application Serial No. 77/726,392 (filed May 24, 2010)
- EX1044 Benjamin Spillman, *Global Gaming Expo 2006: Take my game, please*, LAS VEGAS REV. J. (Nov. 20, 2006)
- EX1045 Richard N. Velotta, *Seeking A Place At The Gaming Table*, LAS VEGAS SUN (May 12, 2009)
- EX1046 *Roulette*, WIZARD OF ODDS (2016)
<https://web.archive.org/web/20161119154345/http://lwizardofodds.com:80/games/roulette/basics/> (describes Roulette win probabilities)
- EX1047 *Top Hat™ Twenty-One*, ROBERTWINTER.COM (May 29, 2006)
https://web.archive.org/web/20060529010957/https://www.robertwinter.com/slot/odyssey/images/flyers/th_f.jpg
- EX1048 *Rapid Roulette*, SHUFFLE MASTER INC. (May 7, 2005)

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- EX1049 *Winning Games*, WAGERWORKS (Mar. 10, 2007)
- EX1050 *Putting It All On The Table*, DIGIDEAL (n.d.)
- EX1051 *This Month in Physics History, July 1654: Pascal's Letters to Fermat on the 'Problem of Points,'* APS125 (July 2009),
aps.org/archives/publications/apsnews/200907/physicshistory.cfm
- EX1052 *Wheel Poker*, WIZARD OF ODDS (Apr. 21, 2010),
<https://web.archive.org/web/20120201095611/https://wizardofodds.com/games/video-poker/tables/wheel-poker/>
- EX1053 *Bonus Spin*, AGS (2016),
<https://web.archive.org/web/20170227055308/http://www.playags.com/portfolio/bonus-spin>
- EX1054 U.S. Patent No. 7,901,285 to Tran (“Tran”)
- EX1055 U.S. Patent No. 6,659,866 to Frost (“Frost”)
- EX1056 U.S. Pre-Grant Pub’l. No. 2014/0094244 (published Apr. 3, 2014) to Baron (“Baron and Haushalter”)
- EX1057 U.S. Patent No. 6,457,715 to Friedman (“Friedman ’715”)
- EX1058 U.S. Patent No. 7,651,096 to Friedman (“Friedman ’096”)
- EX1059 U.S. Patent No. 8,074,992 to Friedman (“Friedman ’992”)
- EX1060 *Sic Bo*, WIZARD OF ODDS (Jan. 21, 2005),
<https://web.archive.org/web/20111007213531/http://wizardofodds.com/sicbo/rules.html>
- EX1061 *Spectacular*, The American Heritage Dictionary of the English Language, 5th Ed.

PETITION FOR *INTER PARTES* REVIEW OF U.S.P.N. 11,756,371

I. INTRODUCTION

Light & Wonder, Inc. (“L&W” or “Petitioner”) requests *inter partes* review of U.S. Patent No. 11,756,371 (“’371 patent,” EX1011), assigned to Evolution Malta Limited (“Evolution” or “PO”). The ’371 patent is directed to a variant of the wagering game roulette: Instead of assigning each roulette position the same payout (e.g., a 35:1 payout for straight wagers on single positions), the ’371 patent increases the payout for one or more randomly selected roulette positions. But this simple tweak to roulette’s conventional rules has been known in the art for decades, and the district court has already held the patent “invalid under *Alice*,” rejecting PO’s argument that the claims recite a technological improvement. EX1022, 15. PO nevertheless continues to assert its invalid patent (EX1023), thus prompting this petition. Petitioner requests institution of IPR and cancellation of claims 1, 2, 4-12, 14-22, and 24-30.

II. THE ’371 PATENT AND CLAIM CONSTRUCTION

A. Technology Background

The ’371 patent is directed to roulette, a centuries-old wagering game commonly played in casinos and other gaming establishments. EX1011, 1:33-34; EX1014. To play roulette, a dealer spins the wheel one direction and directs the ball to spin around the wheel in the opposite direction. EX1011, 3:5-8. The ball eventually falls into a position on the wheel associated with a number. *Id.* at 3:8-10.

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If the player has placed a bet on that number, he or she is paid a sum. If not, the bet amount belongs to the house. EX1003, ¶¶[0104]-[0110].

Over the years, game designers have proposed tweaks to the traditional rules of roulette, hoping to make the game more exciting for players. *See, e.g.*, EX1008, ¶[0002]; EX1007, ¶¶[0007]-[0008]. The '371 patent describes one such tweak to traditional roulette, adding the random selection of one or more roulette wheel numbers and a determination of increased payouts for those randomly selected numbers. EX1015, ¶¶44, 69, 96. These steps are shown in the flowchart of the '371 patent's Figure 2:

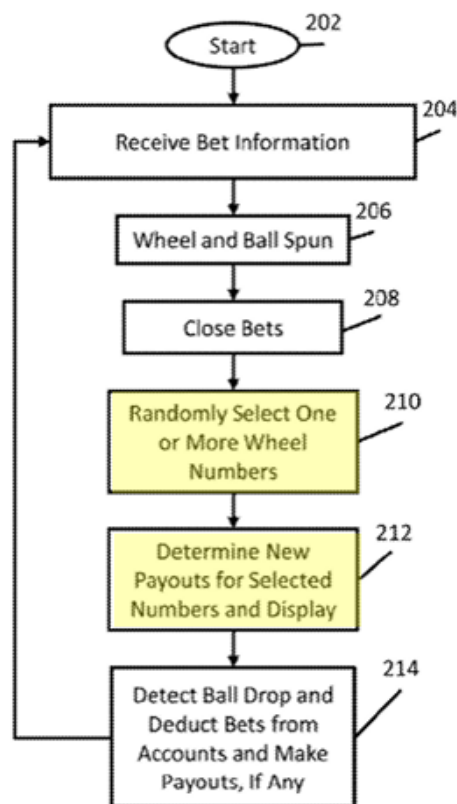


FIG. 2

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EX1011, Fig. 2 (color added);¹ *id.*, 4:60-5:34.

But the tweak to roulette described in the '371 patent was known in the art years before the patent's purported February 2018 priority date. For example, U.S. Patent No. 7,674,172 to Miltenberger, issued on March 9, 2010, describes "a randomizing device [that] selects and identifies which landing [of a roulette wheel] is to be associated with a bonus." EX1016, 1:65-67. In Figure 35 of Miltenberger, for instance, a processor causes one or more landings to be illuminated, and "the landing of a ball on [an illuminated numeral 194] may result in the doubling of the award associated with the illuminated numeral 194." *Id.*, 11:19-45.

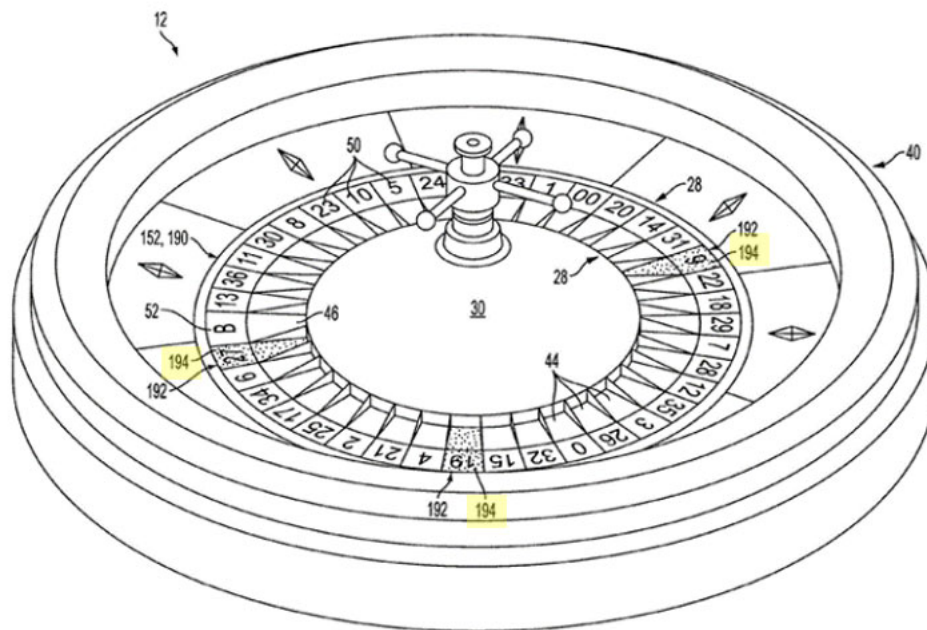


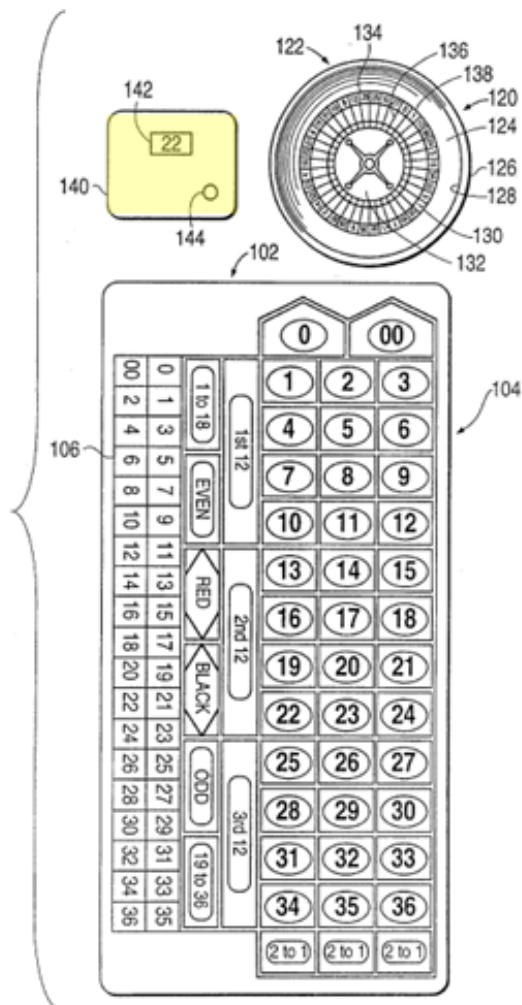
FIG. 35

¹ All color highlighting in images was added by Petitioner; “color added” is not noted in the remainder of the petition.

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Id., Fig. 35 (showing three illuminated numerals 194).

As another example, U.S. Patent No. 5,540,442 to Orselli, issued on July 30, 1996 (*more than 20 years* before the '371 patent's purported February 2018 priority date) discloses a random number generator 140 “for rapidly generating random numbers from among the set of possible numbers in the game of roulette, i.e., one through 36, 0 and 00” (EX1019, 4:51-55):



Id., Fig. 1.

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Orselli's randomly selected roulette position is eligible for an increased payout, *e.g.*, 1000:1 (akin to the 499:1 increased payouts of the '371 patent, EX1011, 5:19-22). EX1019, 3:32-50.

In sum, variants of roulette that included the purported innovation of the '371 patent—*i.e.*, “randomly select[ing] one or more of the roulette wheel numbers, and determin[ing] ... increased payouts for those randomly selected numbers,” EX1015, ¶¶44, 69, 96—were known years before the '371 patent, and the claims of this patent should not have been allowed. This is further explained in Grounds 1-4 below and in the expert declaration of Mr. Stacy Friedman (EX1003), who has over 25 years' experience in a variety of gaming technologies (EX1004). Mr. Friedman provides additional background on the relevant technology in his declaration. EX1003, ¶¶75-110.

B. Summary Of The '371 Patent

The '371 patent is entitled “Systems, Methods, and Media for Implementing Internet-Based Wagering.” EX1011, Title. The patent describes a roulette-based system that purports to “provide Internet-based wagering.” EX1011, 1:23-29. Despite this assertion, none of the patent claims require Internet-based wagering. Instead, the claims recite systems, methods, and computer-readable media that use (i) a conventional roulette wheel, (ii) a conventional roulette ball, and (iii) a conventional hardware processor configured to perform various functions, none of

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which involve the Internet or remote wagering. The '371 patent's hardware processor—which can be “any suitable” processor or circuitry “for controlling the functioning of” an off-the shelf, “general-purpose computer,” *Id.*, 6:35-51—performs functions of a dealer conducting the game roulette.

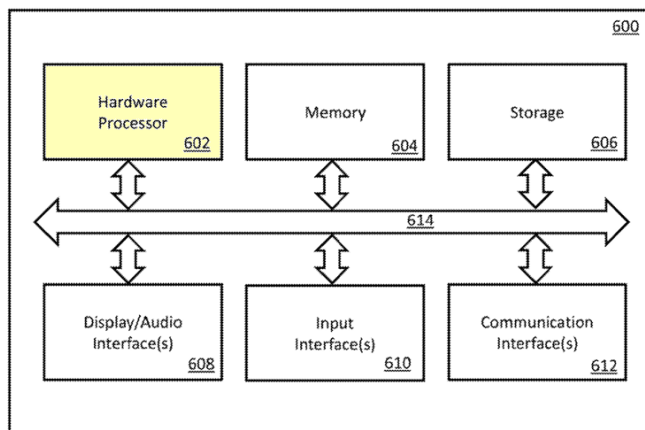


FIG. 6

Id., Fig. 6.

In embodiments, the hardware processor generates a graphical user interface (GUI) that is displayed on player devices. *Id.*, 4:17-29. The player devices “receive bets via the [GUI]” and allow a player to play roulette. *Id.* Figure 3 shows an example GUI including a video area 302 and a betting interface area 304 (*id.*, Fig. 3, 5:45-49):

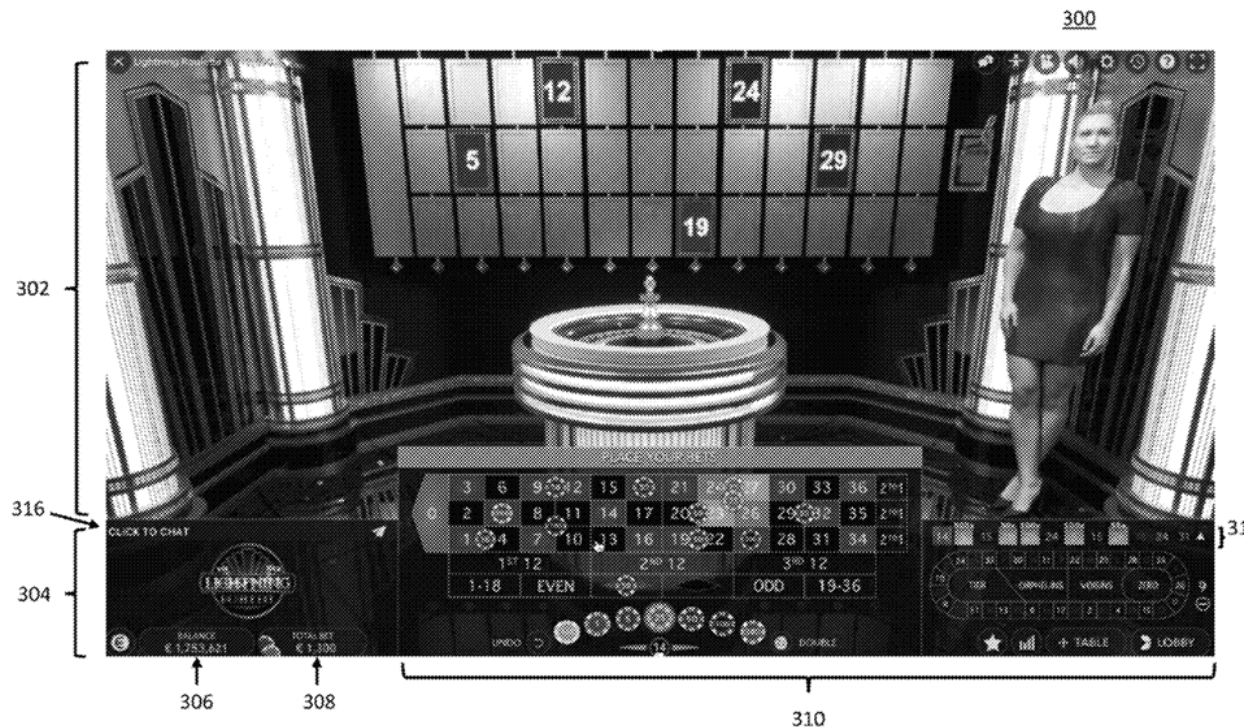


FIG. 3

Id., Fig. 3.

The video area can include video of the roulette wheel, the game presenter, LEDs, lights, displays, or other visual effects. *Id.* 5:49-52. The betting interface 304 can display the player's account balance 306 and total bet amount 308. *Id.* 5:59-64. In area 310, the player can place a bet on a number on the roulette wheel using a simulated roulette board. *Id.* 5:64-67.

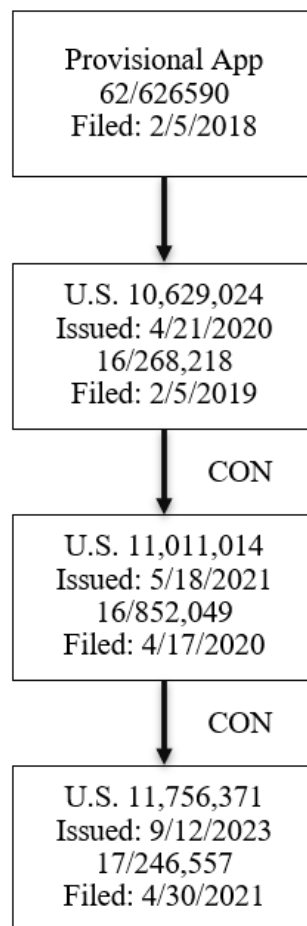
The '371 patent claims the step of “randomly or pseudo-randomly select a first selected position of the plurality of positions on the roulette wheel to have a first increased payout for the spin of the roulette wheel prior to the ball landing into any of the plurality of positions on the roulette wheel for the spin.” *Id.* at claims 1, 11,

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21. When this randomly selected number on the roulette wheel matches the number on which the player has placed a bet and the number into which the ball has fallen on the roulette wheel, the player receives an increased payout, *e.g.*, 49:1, 499:1. *Id.* at 5:17-28, 6:28-34.

C. Patent Family And File History

The '371 patent is one of several patents in a family of related patents that also includes U.S. Patent No. 10,629,024 (“the '024 patent,” EX1005) and U.S. Patent No. 11,011,014 (“the '014 patent,” EX1001):



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As shown above, the '371 patent claims priority to U.S. Provisional Application No. 62/626,590 filed February 5, 2018. EX1011. Without conceding its propriety, Petitioner applies February 5, 2018, as the priority date of the challenged claims in this petition. Petitioner reserves its right to challenge priority in this or other proceedings.

Application No. 17/246,557, which eventually issued as the '371 patent, was filed on April 30, 2021. EX1012. On April 1, 2022, the Patent Office rejected all claims as being anticipated by U.S. Patent No. 9,600,974 to Yee (EX1009). EX1012, 62-69. In response, Applicant argued that the claims of the related '024 and '014 patents had been allowed over Yee, and that the pending claims should likewise be allowed over this reference. *Id.* at 82-93. Nevertheless, the Patent Office continued to reject the claims over Yee in a subsequent Final Office Action. *Id.* at 107-16.

Patent Owner then filed a Request for Continued Examination with amendments to the claims. *Id.* at 130-42. Patent Owner argued that these amendments “clarify that claim 1 is directed to a single bet on a single spin.” *Id.* at 140-41. In contrast, Patent Owner argued, the Examiner’s cited portions of Yee disclose “two different wagers made on the same spin of a roulette wheel” and “two wagers over two different spins of a roulette wheel,” such that claim 1 is allegedly allowable over Yee. *Id.*

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On April 17, 2023, the Patent Office allowed all of the claims. *Id.* at 143-52. The '371 patent issued on September 12, 2023.

D. Claim Construction And The Level Of Ordinary Skill In The Art

1. Claim Construction

In this proceeding, claims are interpreted under the same standard applied by Article III courts. Under this standard, words in a claim are given their plain meaning, which is the meaning understood by a person of ordinary skill in the art (POSA) in view of the patent and file history. In this Petition, all the claim terms are given their plain meaning, as understood by a POSA.

2. The POSA's Skill Level

For purposes of this proceeding, Petitioner maintains a POSA at the time of the '371 patent would have been a person having at least a Bachelor's Degree in electrical engineering, computer science, or computer engineering, or undergraduate training in an equivalent field and at least two years of relevant experience in electronic gaming technology. EX1003, ¶¶[0022]-[0026]. Additional graduate education could substitute for professional experience, and significant work experience could substitute for formal education.

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III. REQUIREMENTS FOR IPR UNDER 37 C.F.R. § 42.204

A. Grounds For Standing Under 37 C.F.R. § 42.204(a)

L&W certifies that the '371 patent is eligible for IPR, and that L&W is not barred or estopped from requesting IPR of claims 1-2, 4-12, 14-22, and 24-30 on the challenged grounds.

B. Identification Of Challenge Under 37 C.F.R. § 42.204(b) And Relief Requested

L&W requests IPR on the following grounds:

Ground	Claims	Basis
Ground 1	1, 2, 4-6, 10-12, 14-16, 19, 21, 22, 24-26, 30	§ 102 and § 103 based on EX1007, U.S. Pre-Grant Pub'l. No. 2008/0248853 to Kido ("Kido")
Ground 2	7-9, 17, 18, 20, 27-29	§ 103 based on Kido and EX1009, U.S. Patent No. 9,600,974 to Yee ("Yee")
Ground 3	1, 2, 4-6, 10-12, 14-16, 19, 21, 22, 24-26, 30	§ 102 and § 103 based on EX1008, U.S. Pre-Grant Pub'l. No. 2016/0155296 to Baron ("Baron")
Ground 4	7-9, 17, 18, 20, 27-29	§ 103 based on Baron and Yee

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IV. CLAIMS 1-30 ARE UNPATENTABLE

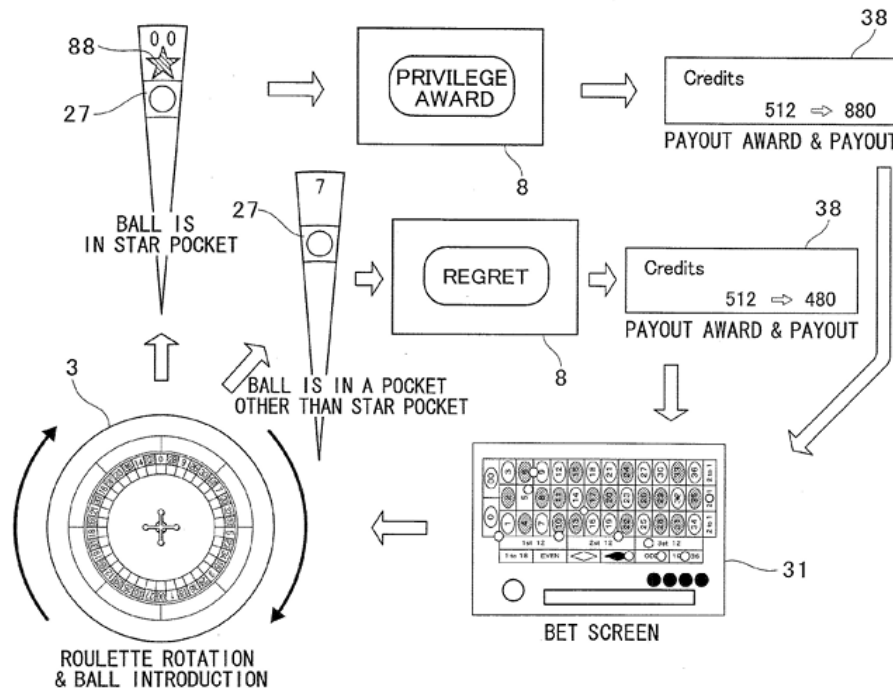
A. Ground 1: Kido Anticipates, And Would Have Rendered Obvious, Claims 1, 2, 4-6, 10-12, 14-16, 19, 21, 22, 24-26, And 30

1. Summary Of Kido

Kido, EX1007, entitled “Gaming Machine Awarding Special Payout Starting From Star Mark and Playing Method Thereof,” was filed March 28, 2008, and published October 9, 2008. Kido is prior art under at least AIA 35 U.S.C. § 102(a)(2).

Kido describes a multi-player roulette wagering game in which players are arranged around the periphery of a table that includes a roulette wheel at its center. EX1007, ¶[0127]; EX1003, ¶¶[0111]-[0119]. Similar to the '371 patent, Kido's system includes a randomly selected position that, when the ball drops into it and a player has bet on that position, results in an award of “a privilege and a payout of the privilege.” EX1007, ¶[0114].

FIG. 1



Id., Fig. 1.

Kido describes a variety of privileges that may be applied, including a “Prog bonus” applicable when the roulette ball comes to rest “in the star mark 88 in the roulette gaming device 1.” *Id.*, ¶[0221]. In the event of a “Prog bonus,” the winning player receives not only the normal payout for winning but also an “accumulated portion,” which as the name suggests, progressively increases over time. *Id.*, ¶[0221].

2. Independent Claims 1, 11, And 21

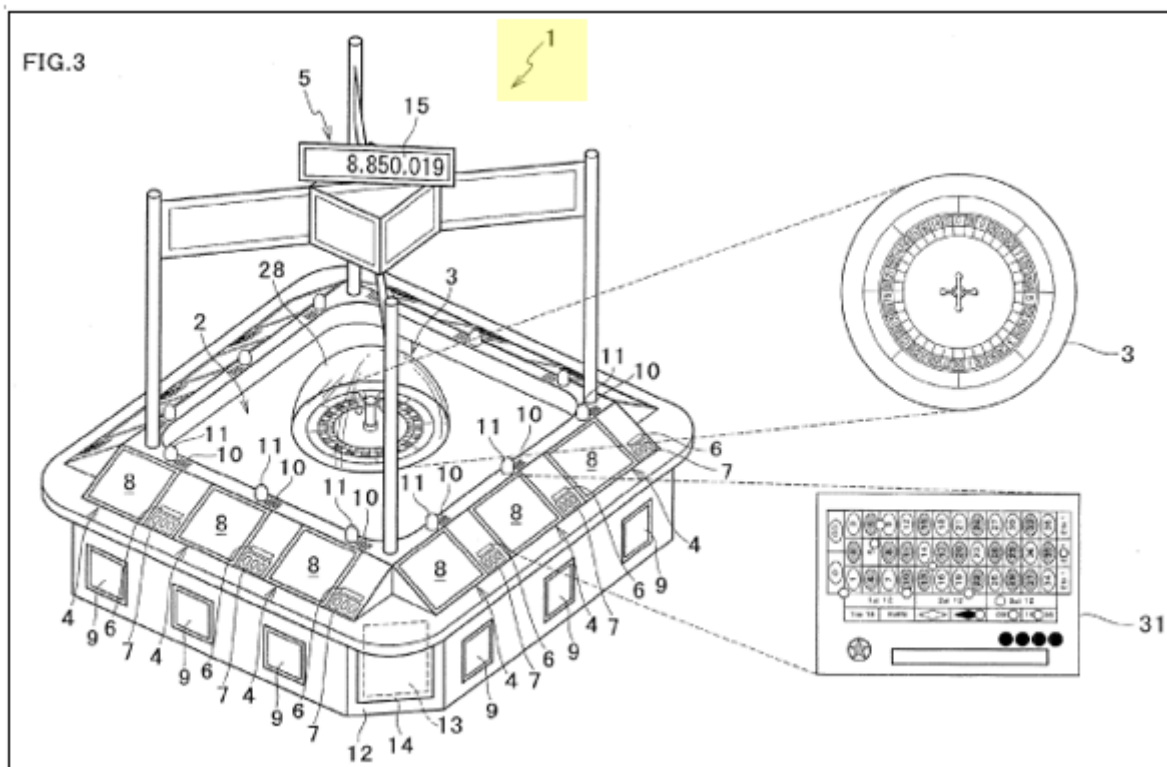
Independent claim 1 is directed to “[a] system for wagering,” and independent claims 11 and 21 are respective method and computer-readable medium claims with similar limitations. EX1030 (chart numbering each element of claims 1, 11, and 21

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and comparing similar elements side-by-side). In view of these similarities, claims 1, 11, and 21 are addressed together.²

(a) Preamble: “A system for wagering, comprising:”

To the extent limiting, Kido discloses the preambles of claims 1, 11, and 21. EX1003, ¶¶[0569]-[0570]; EX1030. Figure 3 of Kido (reproduced below) depicts “a schematic structure of a roulette gaming device 1.” EX1007, ¶[0126].



Id., Fig. 3.

² In the headings that follow, the elements of claim 1 are reproduced. Differences between the language of claims 1, 11, and 21 are addressed in the discussion for each element.

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The roulette gaming device 1 of Figure 3 includes twelve stations 4, where each station 4 is “for receiving a bet operation of a player.” *Id.*, ¶[0127]. Kido’s roulette gaming device 1 is therefore a “system for wagering,” as recited in the preamble of claim 1. *See also id.*, ¶[0006].

Kido’s title (“Gaming Machine Awarding Special Payout Starting from Star Mark and *Playing Method* Thereof”) and disclosure of various routines (including Figure 12’s prog bonus routine and Figure 14’s star positioning determining routine, described below) show that Kido also discloses a “method for wagering,” as recited in the preamble of claim 11. EX1003, ¶[0605].

Kido further discloses a “non-transitory computer-readable medium containing computer executable instructions that, when executed by at least one processor, cause the at least one processor to perform a method for wagering,” as recited in the preamble of claim 21. *Id.*, ¶[0619]. Kido describes that its methods for wagering are performed using CPUs 81, 91, which execute computer instructions stored in memories 82/83 and 92/93, respectively. EX1007, ¶[0154], [0163].

In the related litigation, Patent Owner concedes that Kido discloses the preambles of claims 1, 11, and 21. EX1010, 103, 110, 111.

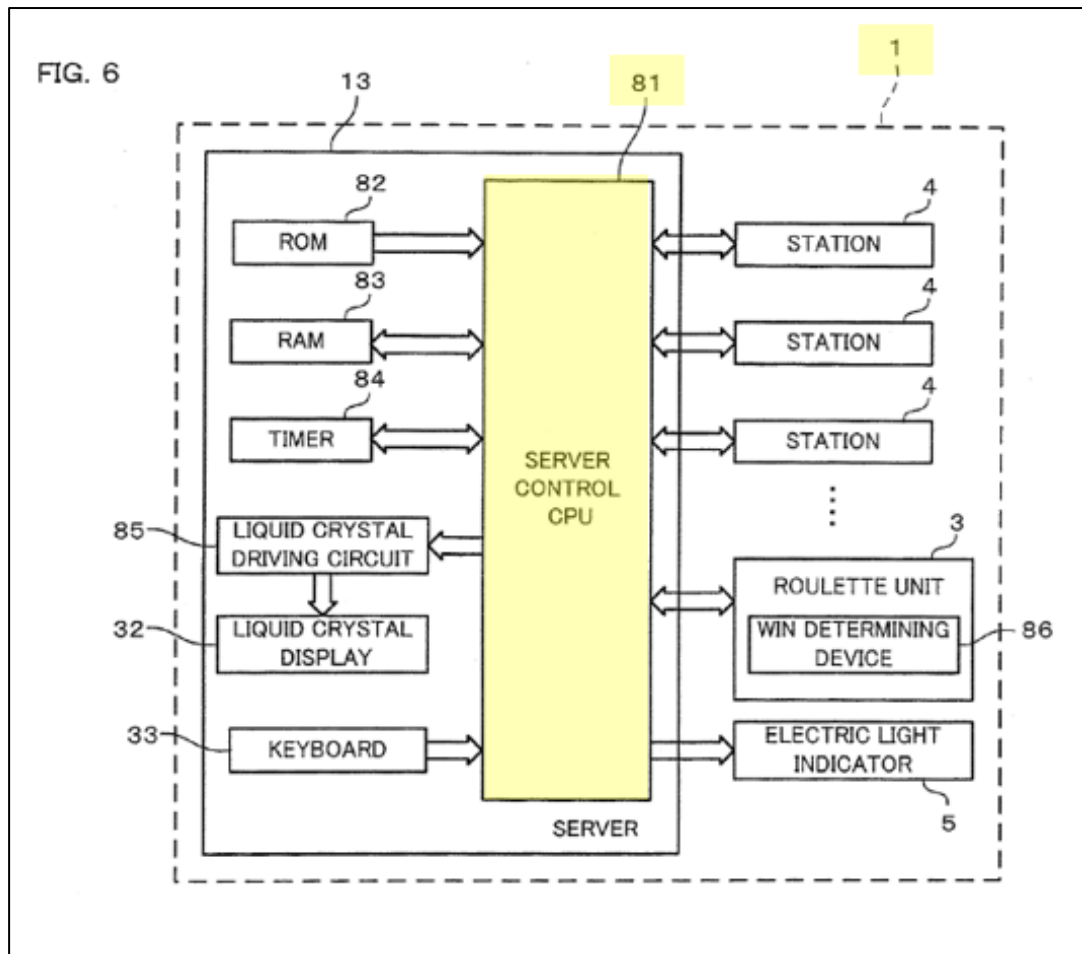
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above, and Kido's roulette wheel has numbered pockets 23 into which the ball can land after a spin of the roulette wheel.

Patent Owner concedes that Kido discloses these limitations. EX1010, 103, 110, 111.

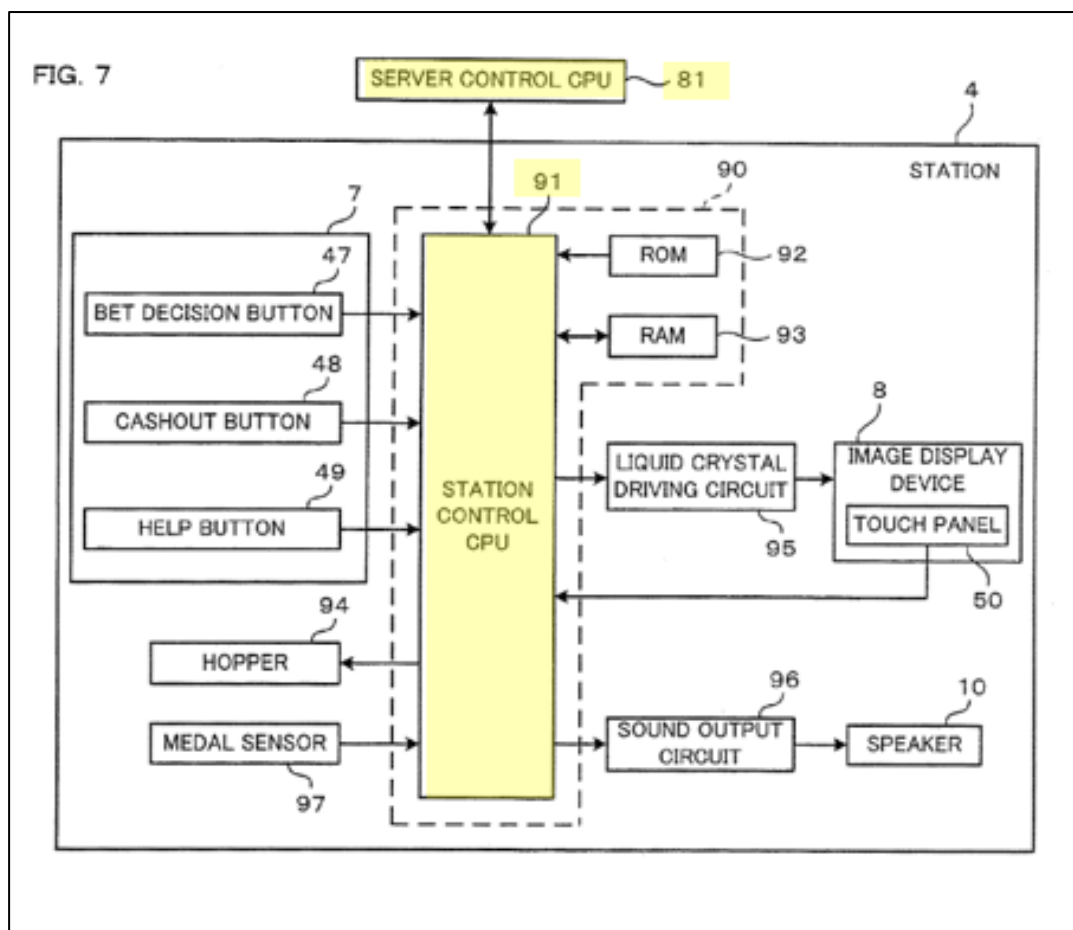
(d) Element 3: “at least one hardware processor collectively configured to:”

Kido discloses (i) element 3 of claim 1, and (ii) element 1 of claim 11. EX1003, ¶¶[0575]-[0579], [0606]-[0610]; EX1030. Kido's roulette gaming device 1 includes a server control CPU 81 for implementing roulette. EX1007, ¶¶[0152]-[0160]. As shown in Figure 6 below, the server control CPU 81 communicates with the player stations 4 of the roulette gaming device 1:



Id., Fig. 6.

Kido further discloses that each player station 4 has its own station control CPU 91 that controls various aspects of the roulette game and is coupled to the server control CPU 81 (*id.*, ¶¶[0161]-[0170]):



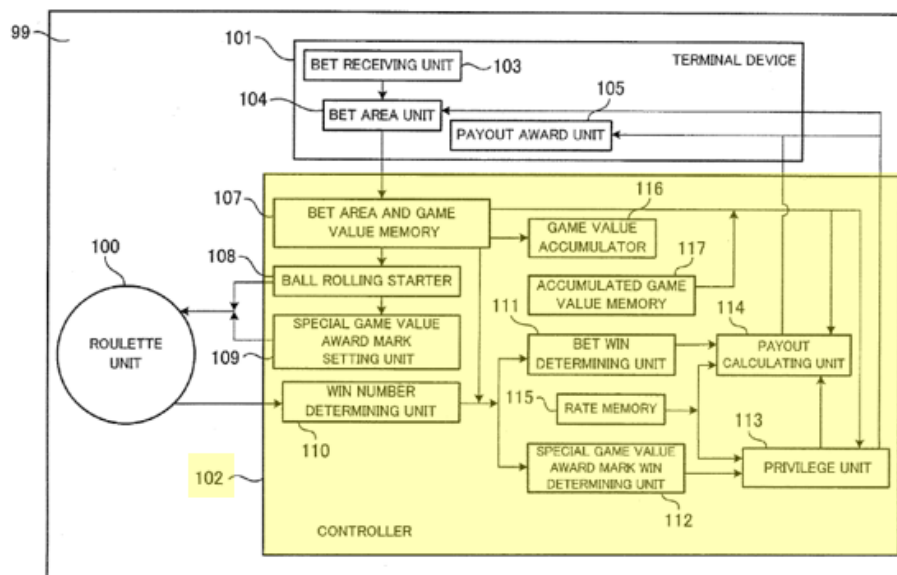
Id., Fig. 7.

Kido’s server control CPU 81 and station control CPUs 91 disclose the claimed “at least one hardware processor,” with the CPUs 81, 91 being collectively configured to perform each of the steps of claims 1, 11, and 21 of the ’371 patent, as explained below. Further, Kido’s CPUs 81, 91 are “hardware processors,” as referred to in the ’371 patent. EX1003, ¶[0576]. The acronym “CPU” stands for “central *processing* unit,” and a CPU is a *hardware* component. *Id.*; see also EX1011, 6:46-51 (the term “hardware processor” encompasses “any suitable hardware processor,” including processors “for controlling ... general-purpose” computers). Here, Kido’s CPUs 81,

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91 are hardware for controlling aspects of a roulette game via computers (*see, e.g.*, Figure 6's ROM 82, RAM 83 and Figure 7's ROM 92, RAM 93 for storing computer instructions and data used by the CPUs 81, 91). The CPUs 81, 91 are therefore "at least one hardware processor," as claimed.

Kido's disclosure of the claimed "at least one hardware processor" is further reflected in Figure 2, which is a conceptual "block diagram" of the roulette gaming device 1. EX1007, ¶¶[0065], [0080], [0105], [0127], [0130]. Kido's Figure 2 includes a block for a controller 102 that corresponds to the server 13 of Figure 6 (reproduced above), which includes the aforementioned server control CPU 81. *Id.*, ¶¶[0105], [0153].



Id., Fig. 2.

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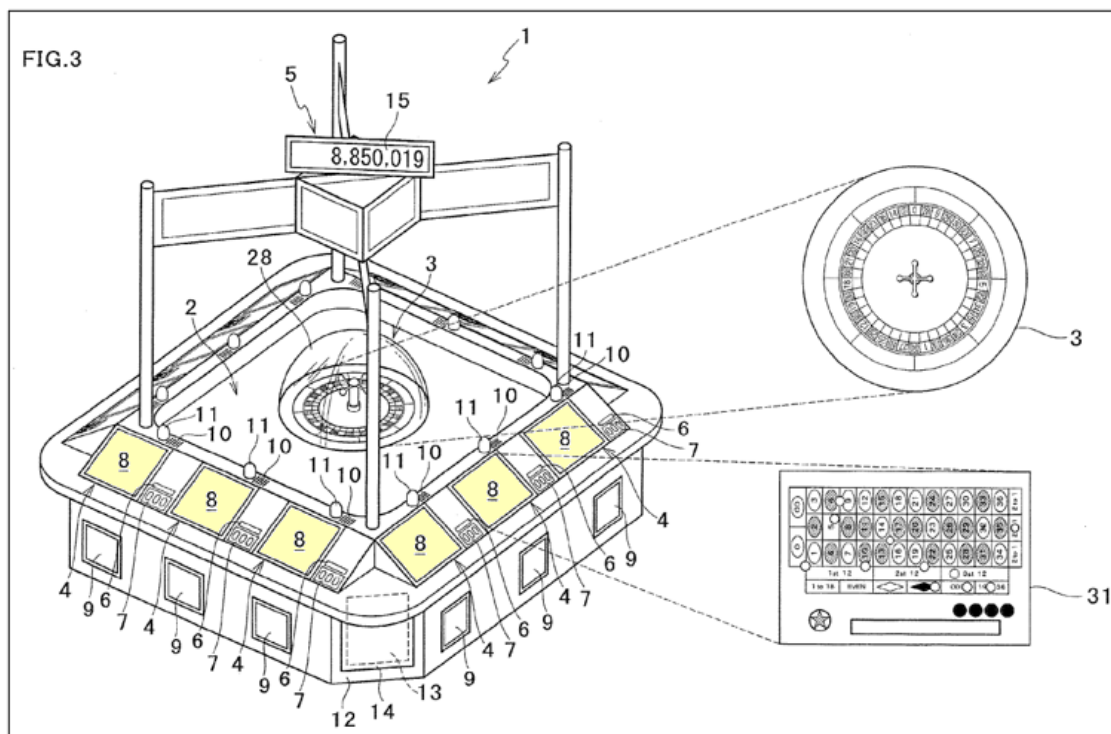
A POSA would have understood that the physical hardware components of the server 13 described with respect to Figures 3 and 6—*e.g.*, server control CPU 81, ROM 82, RAM 83—are configured to perform the conceptual blocks of the controller 102 of Figure 2. EX1003, ¶[0578]. The controller 102, implemented with the physical hardware components of Figures 3 and 6, is therefore a “hardware processor” that executes programs for implementing roulette. *Id.*; EX1007, ¶[0111] (Controller 102 is “embodied in hardware or software, as required.”). Patent Owner concedes that Kido discloses “at least one hardware processor.” EX1010, 103, 110, 111.

Kido also discloses element 1 of claim 11, requiring the step of “causing, by at least one hardware processor, a first graphical user interface to be presented on a first player device, wherein the first graphical user interface includes a roulette board.” EX1003, ¶¶[0606]-[0610]. Figure 3 of Kido discloses that the roulette gaming device 1 has twelve stations 4 (EX1007, ¶¶[0085], [0127]), and the stations 4 disclose the claimed “first player device.” Kido states that each of the stations 4 “serves as a bet unit for receiving a bet operation of a player and a payout unit for awarding a medal. The bet operation is an operation that a player predicting a win number of the roulette unit 3 inputs the contents such as number corresponding to the predicted win number.” *Id.*, ¶[0127]. Accordingly, the stations 4 are “player device[s]” because they

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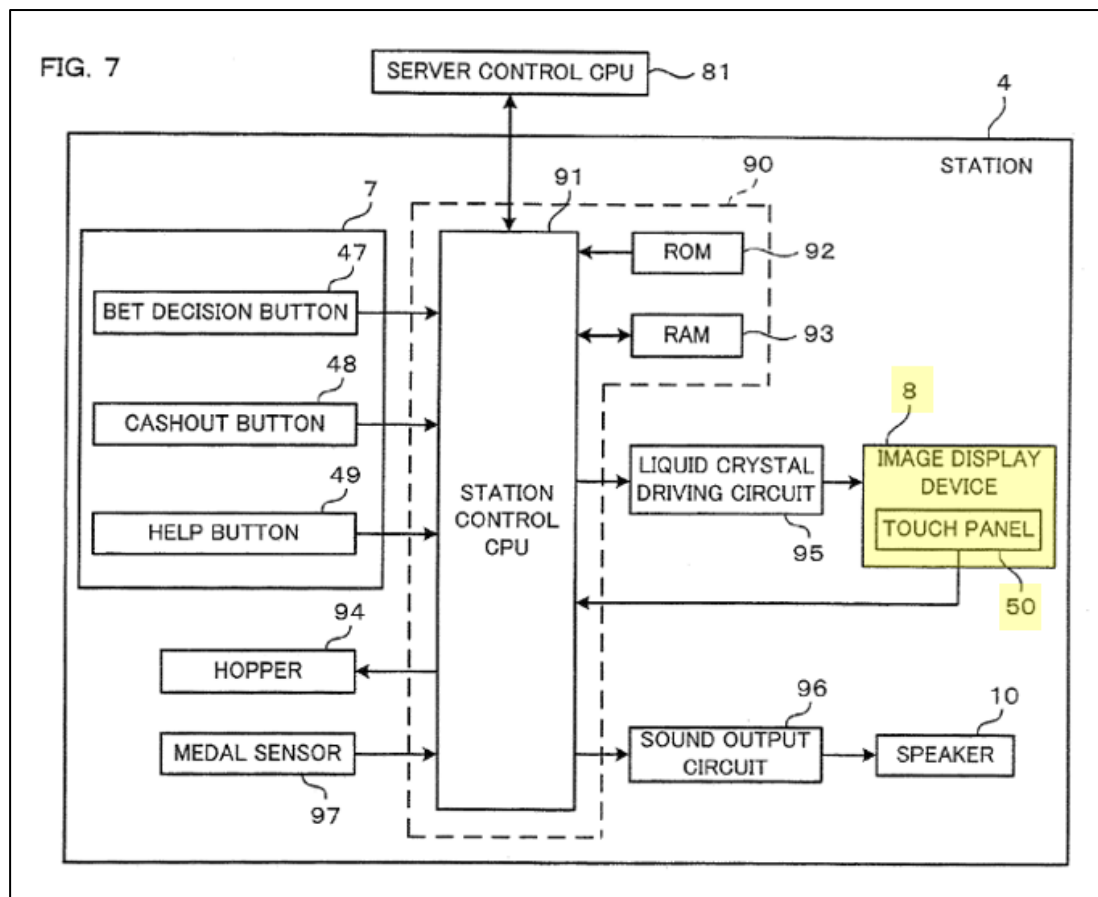
enable a user to interact with the roulette gaming device 1 and play a wagering game. See EX1011, 4:17-18.

Further, Kido's CPUs 81, 91 (*i.e.*, "at least one hardware processor") generate graphical user interfaces for presentation on the player devices. Each station 4 in Kido has an image display device 8 that "displays an image relating to a game and has a game area that receives a bet operation by a player." EX1007, ¶[0143].



Id., Fig. 3; see also ¶[0105].

Kido further discloses that "[t]he image display device 8 is a liquid crystal display of a touch panel type having [a] touch panel 50 attached to a front thereof. When an icon displayed on the liquid crystal is pushed with a finger and the like, the icon is selected." *Id.* ¶[0147].

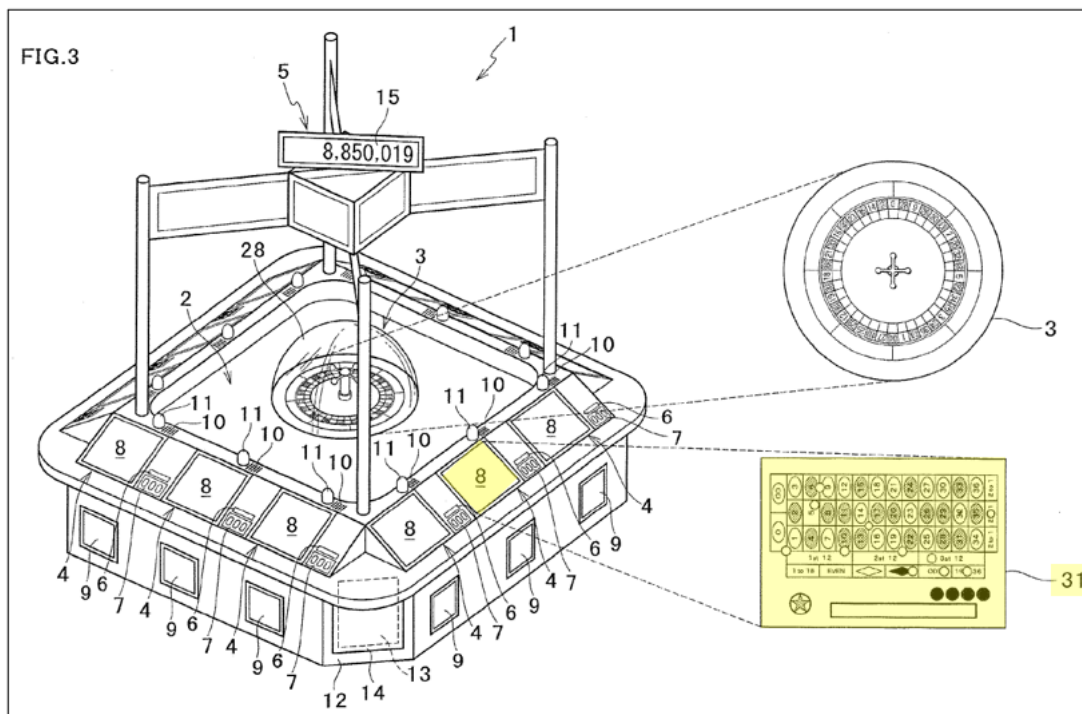


Id., Fig. 7. Kido also explains that “[o]n the touch panel 50, a player makes a bet operation with chips in the BET screen,” by “push[ing] the screen with a finger, thereby indicating a bet area 72, on which a bet is made.” *Id.*, ¶¶[0167], [0177].

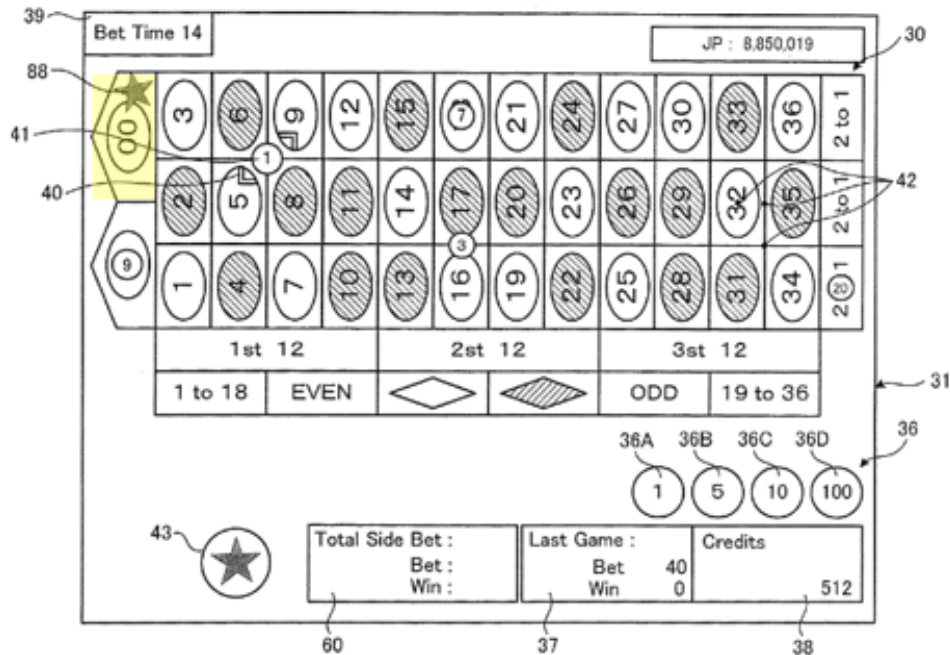
Because each of Kido’s image display devices 8 presents a user interface that enables a user to interact with the roulette gaming device 1 via graphical elements and visual indicators, Kido discloses “causing ... a first graphical user interface to be presented on a first player device,” as claimed. EX1003, ¶[0609]. Kido’s first graphical user interface is generated by the CPUs 81, 91 (*i.e.*, the “at least one hardware processor”). EX1007, ¶¶[0151]-[0160], [0161]-[0170], [0188], [0193].

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The first graphical user interface presented on a first image display device 8 displays a bet screen 31 with a table-type betting board 30 (EX1007, ¶¶[0175], [0186]):



Id., Fig. 6.



Id., Fig. 5. Kido's betting board 30 displayed on the first graphical user interface is a "roulette board." EX1003, ¶[0610]. Accordingly, Kido discloses that its first graphical user interface "includes a roulette board," as required by element 1 of claim 11. *Id.*

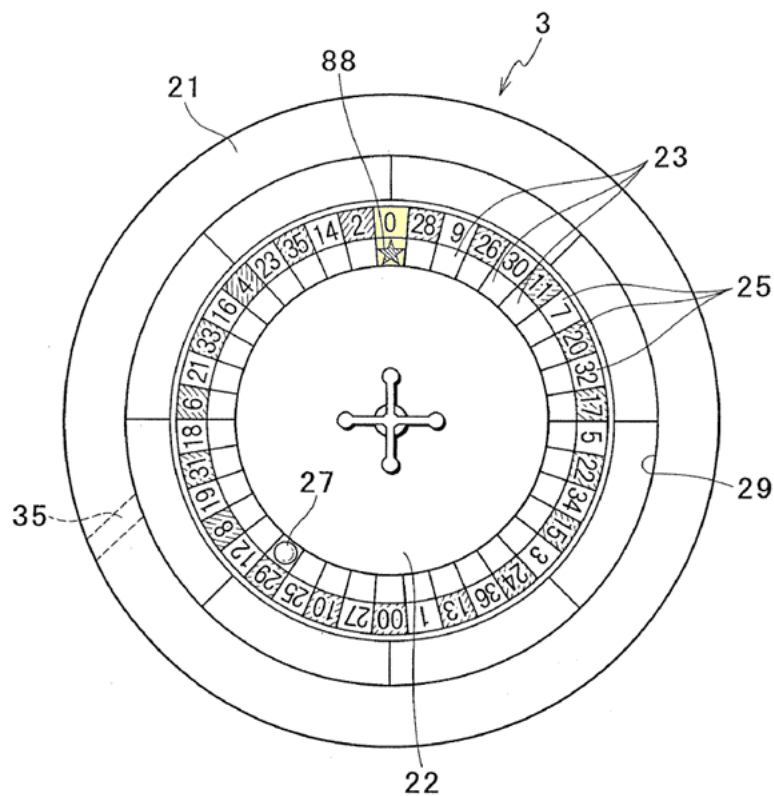
- (e) **Element 4: "randomly or pseudo-randomly select a first selected position of the plurality of positions on the roulette wheel to have a first increased payout for the spin of the roulette wheel prior to the ball landing into any of the plurality of positions on the roulette wheel for the spin;"**

Kido discloses (i) element 4 of claim 1, (ii) element 2 of claim 11, and (iii) element 1 of claim 21. EX1003, ¶[0580]-[0589]; EX1030.

Kido discloses "special game value award marks" associated with positions on a roulette wheel. EX1007, ¶[0108]. When a "win number" (*i.e.*, the number of the

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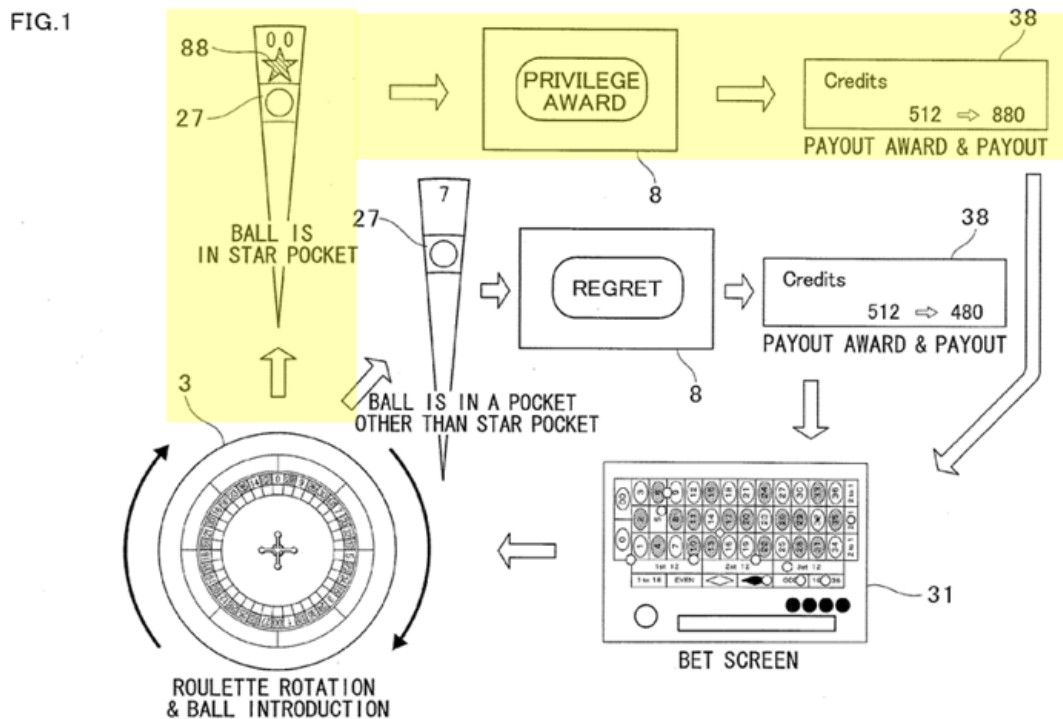
position of the roulette wheel into which the ball comes to rest) has the same position as the special game value award mark, and a player has bet on that position, a “privilege and a payout of the privilege” are awarded. *Id.*, ¶¶[0108] (“a privilege [is awarded] when the win number is the special game value award mark and the mark bet on is also the special game value award mark”), ¶[0114]. One such special game value award mark is the aforementioned “star mark.” *See id.*, Abstract; Section IV.A.1 above. Figure 4 shows a star mark 88 associated with the position numbered “0” on the roulette wheel:



EX1007, Fig. 4.

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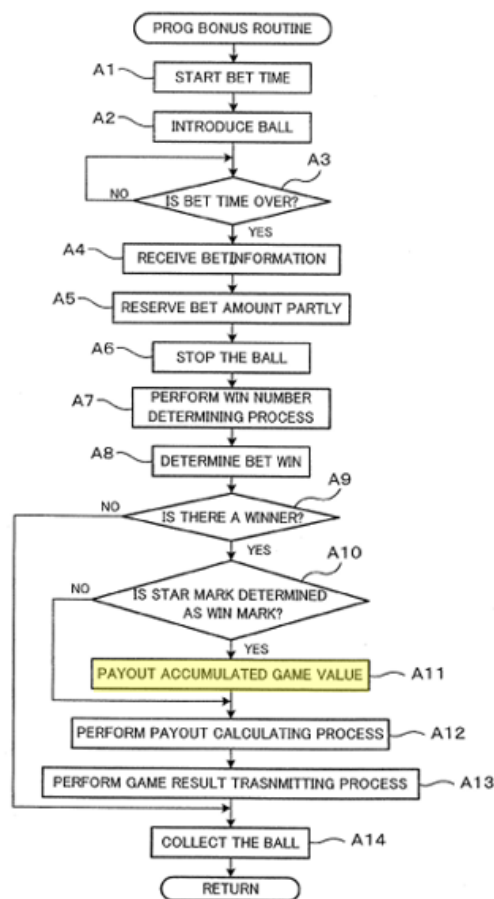
When the ball lands in a position associated with a star mark, and a player has bet on that position, the player receives a privilege award, such as an increased payout:



Id., Fig. 1; *see id.*, ¶[0186].

Figure 12 of Kido is a flowchart with steps of a “prog bonus routine.” *Id.*, ¶¶[0075], [0221]. In this routine, an accumulated, progressive (“prog”) bonus is awarded at step A11 when (i) a player bets on the position into which the ball lands, and (ii) that position has an associated star mark:

FIG. 12



Id., Fig. 12; ¶[0230].

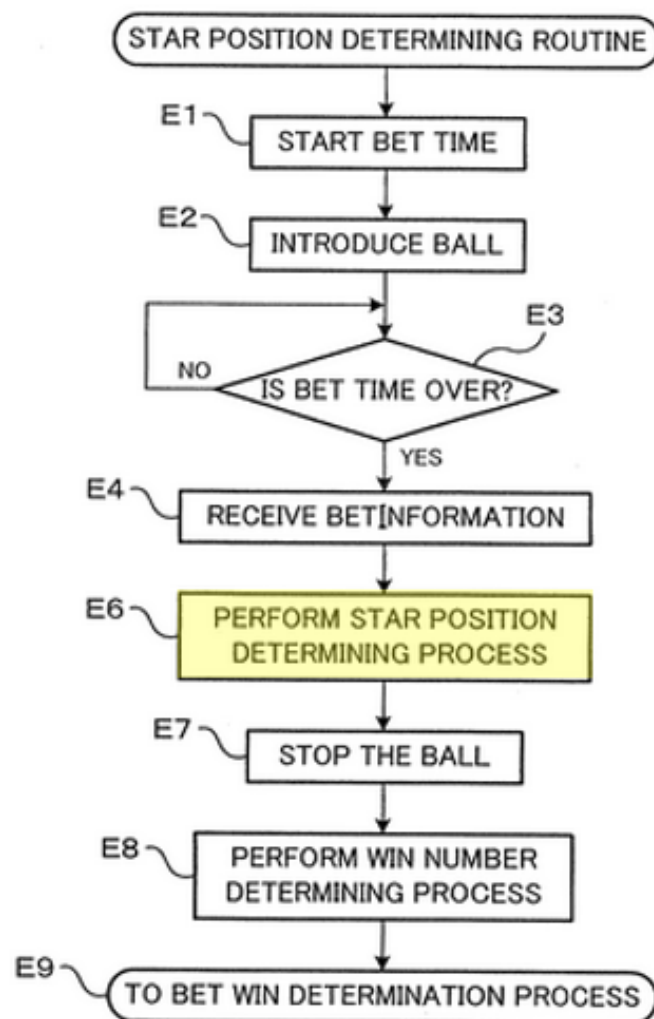
Kido states that “a position of the star mark 88” may be “set in advance” of a roulette game starting. *Id.*, ¶[0209], [0221], [0249]. Alternatively, the position of the star mark 88 may be randomly selected by the CPU 81 “after the bet receiving time is over,” but before “the ball rolled in the roulette unit is stopped” (*id.*, ¶[0114], [0265]):

In ... the Prog routine[,] ... the server control CPU 81 starts a bet time (E1) and introduces the ball 27 to the wheel 22 (E2). *Then, in a step of [E6], a star mark 88, which becomes a starting point for awarding a*

privilege in each routine, is randomly selected from the numbers (one of “0”, “0” and “1” to “36) indicated on the numbered plates 25 until the ball is stopped (E7) after the bet time is over (E3, YES).

Id., ¶[0250]; *see also id.*, ¶[0114].

Figure 14 confirms Kido’s description that the CPU 81’s random selection of a position for the star mark 88 in step E6 occurs before the ball is stopped at step E7, *i.e.*, “prior to the ball landing into any of the plurality of positions on the roulette wheel for the spin,” as claimed:



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Id., Fig. 14; *see also* ¶[0114].

A POSA would have immediately envisaged the use of Kido's Figure 14 star position determining routine in the prog bonus routine of Kido's Figure 12. EX1003, ¶[0584]; *see Kennametal, Inc. v. Ingersoll Cutting Tool Co.*, 780 F.3d 1376, 1382-83 (Fed. Cir. 2015). Kido expressly describes this, stating that the star position determining routine can be used in "the Prog routine." EX1007, ¶¶[0249]-[0250]. Further, Kido states that the Figure 14 routine for randomly determining the star mark's position after the bet time is over is an alternative to determining the position in advance, and a POSA would have understood both alternatives as being viable options for determining the star mark's position in the prog bonus routine of Figure 12. *Id.*, ¶¶[0221], [0249]-[0250], [0265].

Kido's first selected position is randomly or pseudo-randomly selected "to have a first increased payout for the spin of the roulette wheel." EX1003, ¶¶[0587]-[0588]. When a player bets on the position into which the ball lands, and that position has been randomly selected to have a star mark, the position has an increased payout because it includes not only the basic payout for selecting the win number but also an additional payout in the form of the "Prog bonus." EX1007, ¶¶[0114], [0221].

The increased payout for the first selected position is "for the spin of the roulette wheel," as claimed. EX1003, ¶[0586]. Kido's Figure 12 "is a flow chart of a roulette game processing program" executed by the server control CPU 81 of the roulette

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gaming device 1. EX1007, ¶[0221]. At step A2, a “ball insertion device is driven to introduce the ball 27 into the wheel 22,” and the ball is eventually received in a pocket. *Id.*, ¶¶[0223], [0227]-[0228]. After the ball is received in a pocket, the remaining steps of Figure 12 are executed, with the server control CPU 81 awarding the increased prog bonus at step A11, as explained above. *Id.*, Fig. 12; ¶¶[0221], [0229]-[0231]. The ball is collected at step A14 for the spin of the wheel, and “the process [then] returns to the step of A1 and is transited to a next game.” *Id.*, ¶¶[0228]-[0233]. Kido’s increased payout for the randomly selected first selected position is thus “for the spin of the roulette wheel,” as claimed.

In the related litigation, Patent Owner argues that Kido’s prog bonus is “accumulated from prior games of roulette” and therefore “is not for the single ‘spin of the roulette wheel.’” EX1010, 103-04. But the claim language does not limit the *source* of the first increased payout, and nothing in the intrinsic evidence excludes the first increased payout from being sourced from a progressive pot accumulated over rounds. EX1003, ¶¶[0166], [0371]. In any case, a POSA would have also understood that the prog bonus could be sourced from a single round of roulette, *e.g.*, after awarding the prog bonus in a first round, this award would need to be built up again, starting in a next, second round. If a player bets on a winning star mark position in that next, second round, then the increased award would be sourced from only that single round. Further, Kido more generally describes awarding “a privilege and a

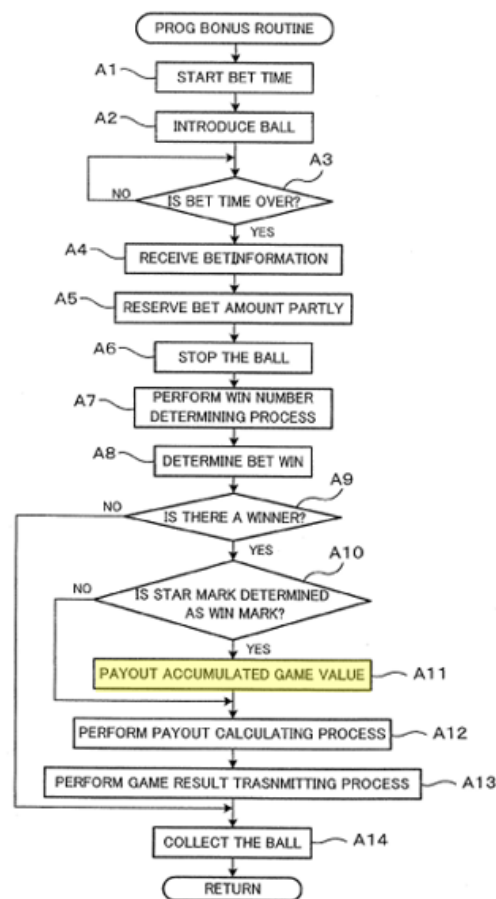
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payout” to players as a bonus in a current game round, without limiting such payouts to progressive payouts. EX1007, ¶¶[0114], [0112].

(f) Element 5: “determine that the ball has landed into the first selected position for the spin; and”

Kido discloses (i) element 5 of claim 1, (ii) element 3 of claim 11, and (iii) element 2 of claim 21. EX1003, ¶¶[0590]-[0592]; EX1030. In step A7 of the Figure 12 prog bonus routine, the server control CPU 81 determines “the numbered pocket 23 into which the ball 27 is received.” EX1007, ¶[0228]. In step A8, the CPU 81 determines “whether the chip bet in each station 4 wins, from the bet information of each station 4 received in the step of A4 and the win number determined in the step of A7.” *Id.*, ¶[0229]. Then, the prog bonus is awarded at step A11 when (i) a player bets on the position into which the ball lands, and (ii) that position has an associated star mark (*i.e.*, when steps A9 and A10 are both satisfied):

FIG. 12



Id., Fig. 12; ¶¶[0221], [0230].

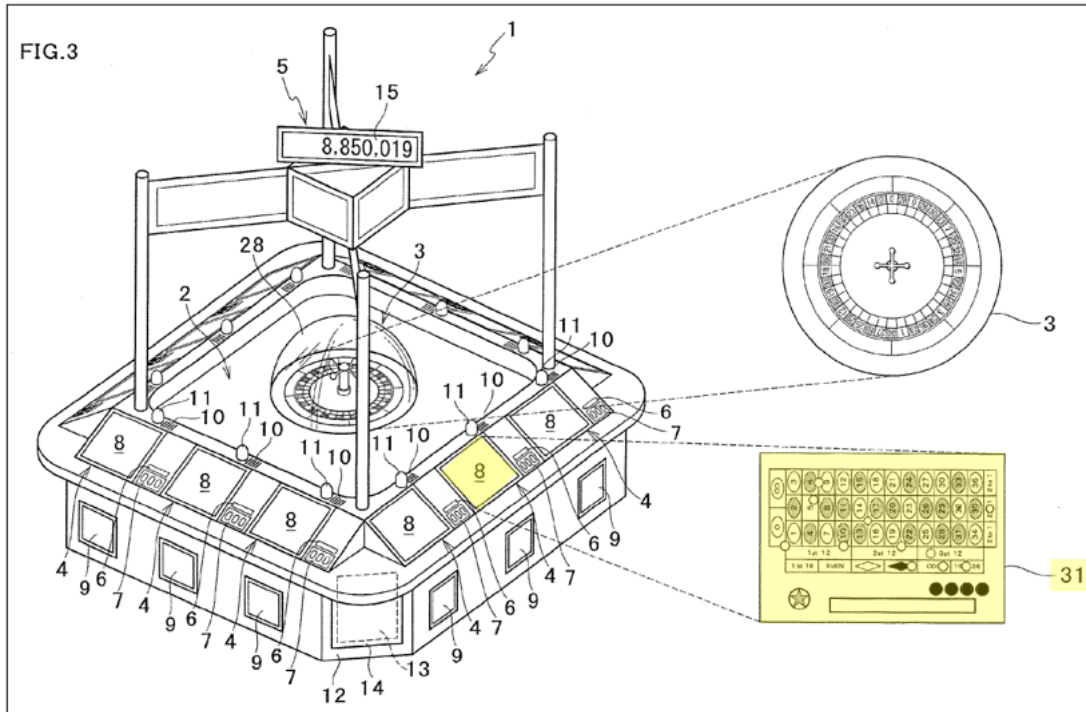
In awarding the prog bonus at step A11, the CPU 81 necessarily “determine[s] that the ball has landed into the first selected position,” as claimed. EX1003, ¶¶[0590]-[0592]. That is how a player wins the prog bonus—only if the ball falls into the position randomly selected to have a star mark, and the player has bet on that position—meaning that Kido’s system necessarily “determine[s] that the ball has landed into the first selected position.” *See also* EX1007, ¶[0108]. Further, the CPU 81’s determination occurs “for the spin”: As explained above, the steps of Figure 12

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(including step A7, when the CPU 81 determines “the numbered pocket 23 into which the ball 27 is received,” *id.*, ¶[0228]) occur within a single round of roulette, for a single spin of the roulette wheel, until the routine “returns to the step of A1 and is transited to a next game.” *Id.*, ¶[0233].

- (g) Element 6: “determine that the first increased payout is applicable to a first bet made on the first selected position for the spin of the roulette wheel, wherein the first increased payout is greater than a first non-selected payout that would have been applicable to the first bet on the first selected position for the spin had the first selected position not been selected by the randomly or pseudo-randomly selecting the first selected position for the spin.”**

Kido discloses (i) element 6 of claim 1, (ii) element 4 of claim 11, and (iii) element 3 of claim 21. EX1003, ¶¶[0593]-[0595]; EX1030. Kido discloses that the graphical user interfaces presented on the image display devices 8 display bet screens 31 that enable the roulette gaming device 1 to receive players’ bets:



EX1007, Fig. 3. Kido specifically describes that the CPUs 81, 91 (*i.e.*, the “at least one hardware processor”) receive bet information corresponding to bets via the touch panels 50 of players’ respective image display devices 8. EX1007, ¶[0167]; *see also id.*, ¶¶[0127], [0177].

Kido’s CPU 81 “determine[s] that the first increased payout is applicable to a first bet made on the first selected position.” EX1003, ¶[0594]. As above, when a player bets on the position into which the ball lands, and that position has an associated star mark, Kido’s CPU 81 determines that the increased payout is applicable to the player’s bet and awards that increased payout at step A11. EX1007, ¶¶[0114], [0221]. The CPU 81’s determination occurs “for the spin of the roulette wheel”: As explained above, the steps of Figure 12 (including steps A9, A10, and A11 for determining

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whether the first increased payout is applicable to the player's bet) occur within a single round of roulette, for a single spin of the roulette wheel. *Id.*, Fig. 12, ¶[0233].

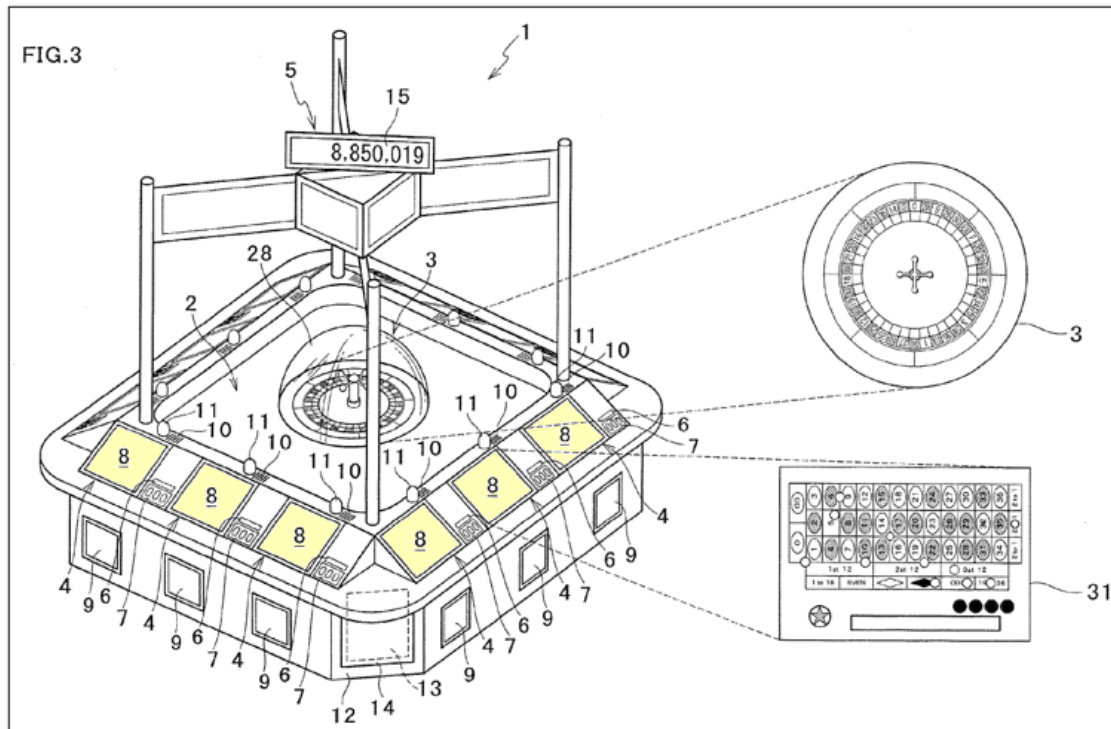
Kido's increased payout "is greater than a first non-selected payout that would have been applicable to the first bet on the first selected position for the spin had the first selected position not been selected by the randomly or pseudo-randomly selecting the first selected position for the spin," as claimed. Section IV.A.2.e above explains that when a player bets on the position into which the ball lands, and that position has an associated star mark, the position has an increased payout because it includes not only the basic payout for selecting the win number but also an additional payout in the form of the "prog bonus." *Id.*, ¶¶[0114], [0221]. By contrast, had the first selected position *not* been randomly selected, the player would only be eligible for the basic payout. EX1003, ¶[0595].

Kido anticipates and renders obvious claims 1, 11, and 21.

3. Claims 2, 12, And 22

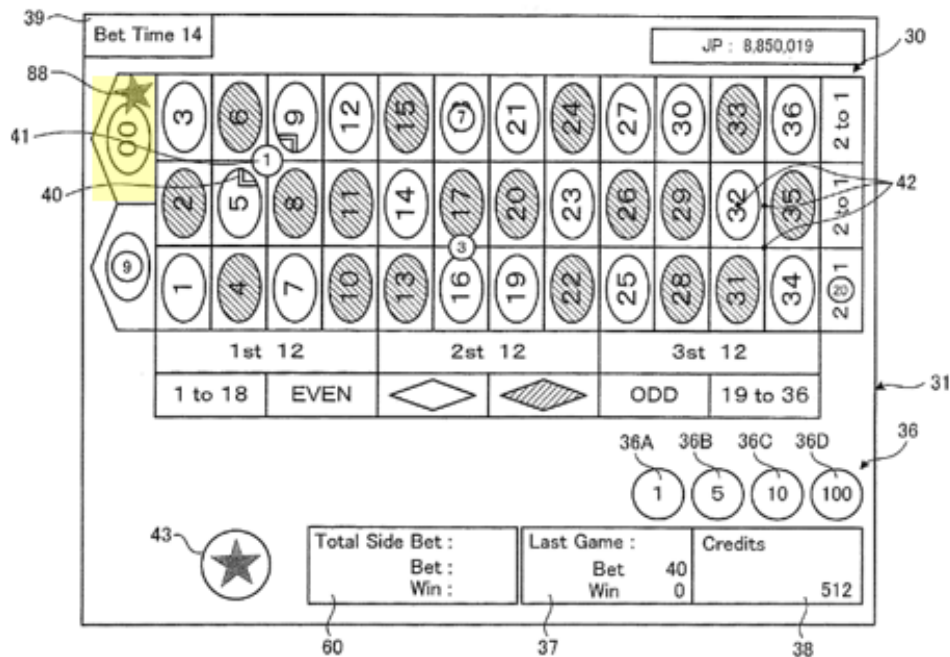
Claim 2 depends from claim 1, reciting: "further comprising a display that identifies the first selected position." EX1031. Dependent claims 12 and 22 depend from claims 11 and 21, respectively, and recite similar limitations. *Id.* Kido discloses these limitations. EX1003, ¶[0596].

Each player station 4 in Kido has an image display device 8:



EX1007, Fig. 3; *id.*, ¶[0143].

The image display devices 8 indicate the position of the star mark 88 (*i.e.*, the “first selected position”). Figure 5 shows the bet screen 31 displayed on the image display devices 8, with the bet screen 31 including an image of a star to indicate the position of the star mark 88:



Id., Fig. 5; *see also id.*, ¶[0122] (“a letter notifying the player that it is [sic] made a win in the special game value award mark is displayed on the image display device,” thus indicating that the position of the star mark is the same as the position on which the player bet).

Kido anticipates and renders obvious claims 2, 12, and 22.

4. Claims 4, 14, and 24

Claim 4 depends from claim 1, reciting “wherein the at least one hardware processor is further collectively configured to: randomly or pseudo-randomly select a second selected position of the plurality of positions on the roulette wheel to have a second increased payout for the spin of the roulette wheel prior to the ball landing into any of the plurality of positions on the roulette wheel for the spin, wherein the second

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increased payout for the second selected position is greater than a second non-selected payout that would have been applicable to a second bet on the second selected position for the spin had the second selected position not been selected by the randomly or pseudo-randomly selecting the second selected position for the spin, and wherein the second increased payout is different than the first increased payout.” EX1031. Dependent claims 14 and 24 depend from claims 11 and 21, respectively, and recite similar limitations. *Id.* Kido renders obvious these limitations. EX1003, ¶¶[0597]-[0601].

As explained above, Kido discloses a star mark (EX1007, ¶[0283]) used to award a “prog bonus” in addition to the normal payout when the ball comes to rest in the roulette wheel position corresponding to the randomly selected star mark. *Id.*, ¶[0265]. The first selected position is randomly selected prior to the ball landing into any of the positions on the roulette wheel. *See* Section IV.A.2.e above. That claims 4, 14, and 24 recite randomly selecting a “second selected position” prior to the ball landing, in addition to the randomly selected “first selected position,” is of no consequence. EX1003, ¶¶[0597]-[0601]. In view of Kido’s disclosure of randomly selecting a first selected position to have a first increased payout before the ball lands, it would have been obvious to randomly select a second selected position for a second increased payout before the ball lands. *Id.* Simply reciting two or more of something as opposed to a single instance of that thing does not, by itself, qualify as a nonobvious

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difference. *See, e.g., In re Harza*, 274 F.2d 669, 671 (CCPA 1960) (“It is well settled that the mere duplication of parts has no patentable significance unless a new and unexpected result is produced,...”).

Kido also discloses that after the position into which the ball lands is determined, “the payout calculator unit 114 calculates a payout corresponding to the bet area, based on the payout rate relative to the bet type stored in the rate memory.” EX1007, ¶[0114]. A POSA would have readily understood that, upon randomly selecting a second selected position (which itself would have been obvious, as explained above), it would be equally obvious to make the second increased payout for the second selected position different than the first increased payout for the first selected position. EX1003, ¶¶[0597]-[0601]. The second increased payout for the second selected position could either be (i) the same as, or (ii) different than the first increased payout for the first randomly selected position, and it would have been obvious for a POSA to select either of these two options. *Id.*

Further, as explained above, Kido describes an objective of providing a roulette gaming device with new features for avoiding “monotonous” play and “increasing a player’s game desire.” EX1007, ¶¶[0006]-[0008]. A POSA would have recognized that using different increased payouts for the first and second selected positions would add excitement for players, thus motivating the POSA to select this option. EX1003, ¶[0600]. Further, the random selection of multiple positions with different increased

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payouts was known in the art, which would have further motivated a POSA to employ this technique in Kido. *See, e.g.*, EX1018 (Raedt), Abstract (“randomly selecting a plurality of numbers as bonus game numbers,” each bonus game number having a randomly selected (and therefore, different) bonus).

Finally, the second increased payout for the second selected position would be “greater than a second non-selected payout that would have been applicable to a second bet on the second selected position for the spin had the second selected position not been selected by the randomly or pseudo-randomly selecting the second selected position for the spin,” as claimed. As explained in Section IV.A.2.e above, when a player bets on the position into which the ball lands, and that position has an associated star mark, the position has an increased payout because it includes not only the basic payout for selecting the win number but also an additional payout in the form of the “prog bonus.” *Id.*, ¶¶[0114], [0221]. By contrast, had the second selected position *not* been randomly selected, the player would only be eligible for the basic payout. EX1003, ¶[0601].

Kido renders obvious claims 4, 14, and 24.

5. Claims 5, 15, and 25

Claim 5 depends from claim 1, reciting “wherein the at least one hardware processor is further collectively configured to cause the ball and the roulette wheel to automatically spin.” EX1031. Dependent claims 15 and 25 depend from claims 11

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and 21, respectively, and recite similar limitations. *Id.* Kido discloses these limitations. EX1003, ¶[0602].

Kido discloses that the CPU 81 is configured to cause the roulette wheel and ball to spin automatically, without human intervention. EX1007, ¶¶[0154] (“the server control CPU 81 drives a drive motor provided to the roulette unit 3, thereby shooting a ball 27 or rotating the wheel 22”), [0157]; *see also id.*, ¶¶[0108] (“ball rolling starter 108 that rolls a ball on [the roulette] wheel”), [0114], [0153], [0221], [0223], [0227].

Kido anticipates and renders obvious claims 5, 15, and 25.

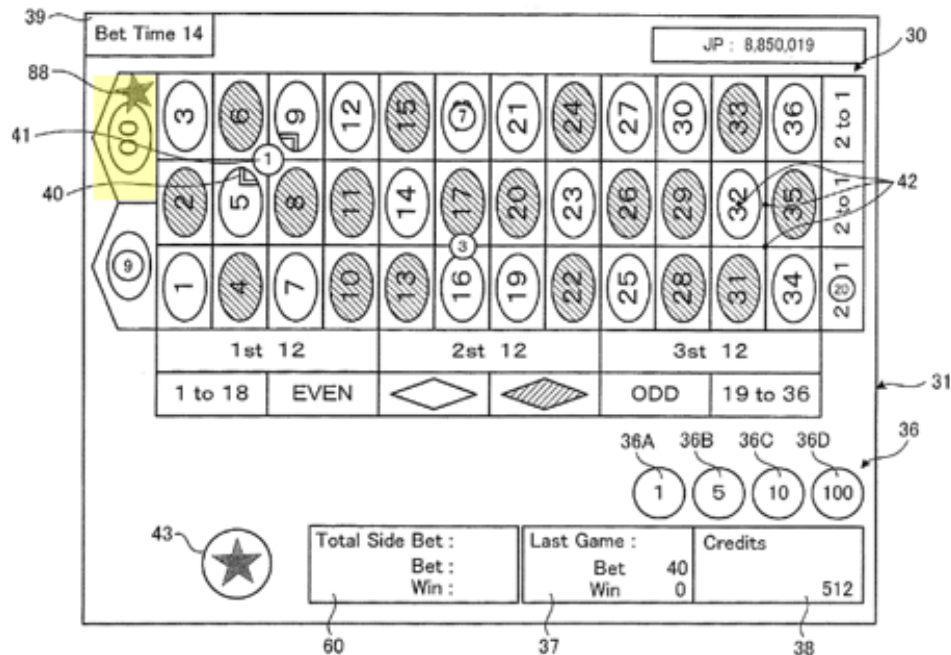
6. Claims 6, 16, and 26

Claim 6 depends from claim 1, reciting “wherein the at least one hardware processor is further collectively configured to cause a first graphical user interface to be presented, wherein the first graphical user interface includes a roulette board in which the first selected position is highlighted.” EX1031. Dependent claims 16 and 26 depend from claims 11 and 21, respectively, and recite similar limitations. *Id.* Kido discloses these limitations. EX1003, ¶[0603].

Kido discloses “wherein the at least one hardware processor is further collectively configured to cause a first graphical user interface to be presented, wherein the first graphical user interface includes a roulette board” for the reasons presented in Section IV.A.2.d above for element 1 of claim 11. As explained, the

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first graphical user interface displays a bet screen 31 with a table-type roulette board 30 (EX1007, ¶¶[0175], [0186]):



Id., Fig. 5.

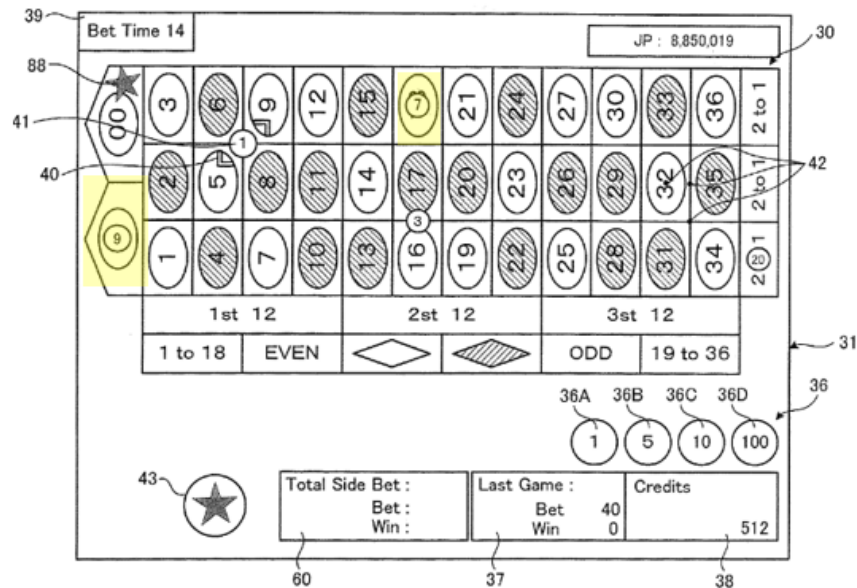
The at least one hardware processor is configured to highlight the first selected position in response to the first selected position being randomly selected. As seen above, the randomly selected star mark 88 is displayed on the roulette wheel (EX1007, Fig. 4, element 88) and on the betting board 30 of the bet screen 31 (*id.*, Fig. 5, element 88; ¶[0068]). A POSA would have understood that the display of the randomly selected star mark 88 serves as a type of highlighting, thereby disclosing this limitation. EX1003, ¶[0603].

Kido anticipates and renders obvious claims 6, 16, and 26.

7. Claims 10, 19, and 30

Claim 10 depends from claim 1, reciting “wherein the first bet is a bet on a single position of the roulette wheel.” EX1031. Dependent claims 19 and 30 depend from claims 11 and 21, respectively, and recite similar limitations. *Id.* Kido discloses these limitations. EX1003, ¶[0604].

Kido’s Figure 5, for example, shows that the bet screen 31 enables a user to make a “straight up” bet, which is a bet on a single position:



Id., Fig. 5; see also *id.*, ¶¶[0172], [0182].

In the related litigation, Patent Owner argues that Kido “does not disclose bet information ‘corresponding to only a single... position on the roulette wheel.’ It discloses bets corresponding to multiple positions.” EX1010, 103. That is wrong for the reasons just explained. That Kido’s CPUs 81, 91 are *also* configured to receive

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bet information corresponding to multiple positions (*e.g.*, EX1007, ¶[0175]) does not negate Kido's disclosure of a hardware processor configured to receive bet information for single positions. Claims 10, 19, and 30 use the transitional phrase "comprising," which "permits the *inclusion* of other steps, elements, or materials." *In re Baxter*, 656 F.2d 679, 686 (C.C.P.A. 1981). Moreover, Kido's disclosure is consistent with the '014 patent, which describes a system that can receive bets on single positions or multiple positions. *E.g.*, EX1001, 4:38-41, 5:2-8.

Kido anticipates and renders obvious claims 10, 19, and 30.

B. Ground 2: Claims 7-9, 17, 18, 20, And 27-29 Would Have Been Obvious In View Of Kido And Yee

1. Summary Of Yee

Yee, EX1009, entitled "Methods of Administering Roulette Bonus Wagers and Related Apparatuses and Systems," was filed September 20, 2013 and issued March 21, 2017. Yee is prior art under at least AIA 35 U.S.C. § 102(a)(2).

Yee describes a multi-player roulette system that includes a playing table 400 having a roulette wheel 406 at its center and multiple player stations 412 arranged on two sides of the table 400. EX1009, Fig. 5A; EX1003, ¶¶[0120]-[0123].

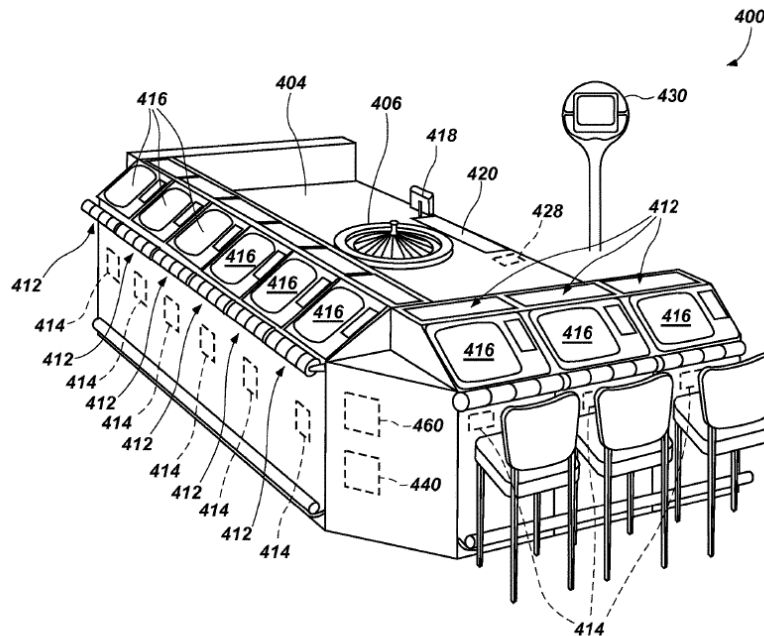


FIG. 5A

EX1009, Fig. 5A.

Yee's system selects a random number that, under specific circumstances, is used to award a winning player an enhanced payout. *Id.*, Abstract. Yee discloses that such enhanced payouts may be calculated using a randomly selected "multiplier" which, when triggered, increases the payout "to an amount of the wager multiplied by the randomly selected multiplier." *Id.* The multipliers may be "10 times, 25 times, 50 times, 100 times, 250 times, 500 times, and 1,000 times for a payout." *Id.*, 2:15-20. For example, Yee's Figure 3 depicts a display surface 140 having a multiplier area 142 displaying that the multiplier to be applied is "x1000 YOUR BET!" *Id.*, Fig. 3, 13:52-56.

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2. Motivations To Combine

It would have been obvious to one of skill in the art at the time of the '371 patent to modify the roulette gaming system of Kido to include features of Yee. EX1003, ¶¶[0629]-[0630]. For example, a POSA would have been motivated to incorporate into Kido's system Yee's display of the payout enhancement (*e.g.*, "x1000 YOUR BET!", EX1009, Fig. 3, 13:52-56), so that the players could easily determine the value of the increased payout, which would potentially increase the quantity and/or value of bets. Further, Kido describes an objective of providing a roulette gaming device with new features for avoiding "monotonous" play and "increasing a player's game desire." EX1007, ¶¶[0006]-[0008]. A POSA would have recognized that displaying the payout enhancement (as taught in Yee) would add excitement for players, and a POSA would have been motivated to use this feature in Kido for at least this reason.

Additionally, Kido and Yee both describe multi-player roulette systems that use one or more hardware processors to accept bets, display information about game status, and otherwise control operations of the system. *See, e.g.*, EX1007 (Kido), Fig. 3, ¶¶[0162]-[0170]; EX1009 (Yee), Fig. 5A, 19:10-20:26. Kido and Yee also both relate to computerized roulette systems having an enhanced payout feature that is based on a randomly selected number. Further, Kido and Yee both relate to commercial wagering systems (*e.g.*, for use in a casino), the ultimate goal of which is

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to earn profit for the casino by providing wagering games that have attention-getting features and functionality to entice players to place larger and/or more frequent bets.

In view of at least these factors, a POSA would have naturally looked to Yee when seeking to improve on and/or enhance the functionality of Kido's system. *Id.*, ¶¶[0629]-[0630]. In addition, a POSA would have been motivated to modify Kido's roulette gaming system to use various features of Yee because the combination amounts to applying a known technique to yield predictable results. *Id.*

3. Claims 7, 17, And 27

Claim 7 depends from claim 6, reciting: "wherein the at least one hardware processor is further configured to indicate '500x' at the first selected position on the roulette board in the first graphical user interface." EX1031. Dependent claims 17 and 27 depend from claims 16 and 26, respectively, and recite similar limitations. *Id.*

Claims 7, 17, and 27 are anticipated by and obvious over Kido for the same reasons as claims 1, 11, and 21 because the language added in claims 7, 17, and 27 is non-limiting printed matter. *Praxair Distrib., Inc. v. Mallinckrodt Hosp. Prods. IP Ltd.*, 890 F.3d 1024, 1032 (Fed. Cir. 2018) ("[L]imitations directed to the content of information and lacking a requisite functional relationship are not entitled to patentable weight."). The claimed "wherein the at least one hardware processor is further configured to indicate '500x'" is directed to communicative content and has no functional relationship with any substrate (*e.g.*, screen) on which it is displayed.

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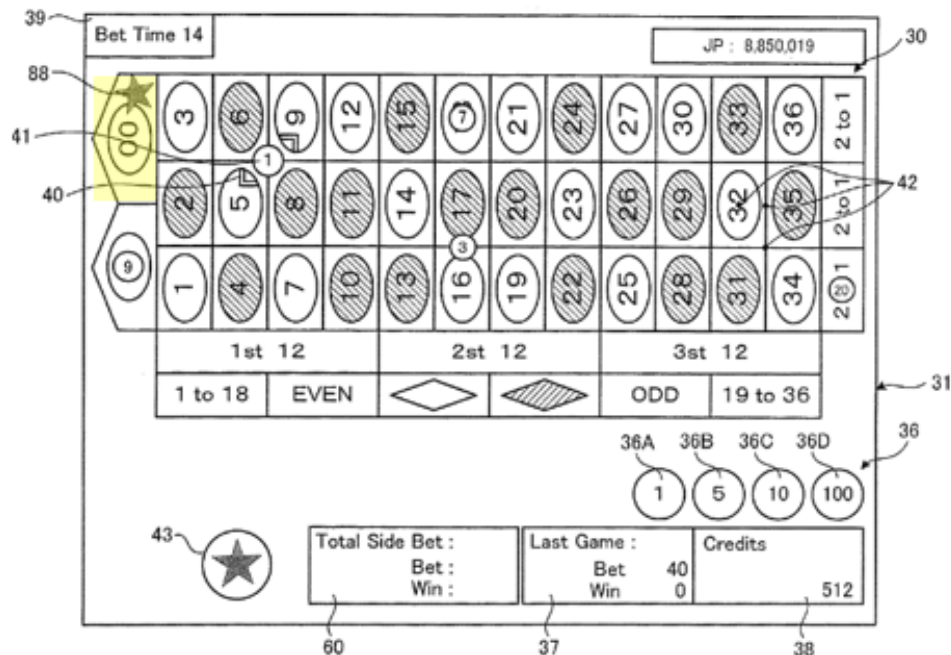
See In re Bryan, 323 F. App'x 898, 901 (Fed. Cir. 2009) (“[T]he printed matter does not depend on the game’s structural elements, and the game’s structural elements do not depend on the printed matter.... Thus, the printed matter does not exploit, or interrelate with, the underlying structural elements and, therefore, is not functionally related to the substrate.”).

In any case, the limitations of claims 7, 17, and 27 are rendered obvious by Kido in view of Yee. EX1003, ¶¶[0632]-[0642]. Kido and Yee both relate to roulette gaming systems including an enhanced payout feature based on a randomly selected number. For example, Kido discloses awarding “a game value obtained by multiplying a predetermined rate by the predetermined game value.” EX1007, ¶[0046]. Similarly, Yee discloses that, under specific circumstances, “an amount of the payout [is] an amount of the wager multiplied by a randomly selected multiplier.” EX1009, 1:9-16. Yee further discloses that such multipliers may be “10 times, 25 times, 50 times, 100 times, 250 times, 500 times, and 1,000 times for a payout.” *Id.*, 2:15-20. For example, Yee’s Figure 3 depicts a display surface 140 having a multiplier selection area 142 displaying that the multiplier to be applied is “x1000 YOUR BET!” *Id.*, Fig. 3, 13:52-56.

A POSA would have understood that the enhanced payout to be used and displayed is an arbitrary design choice. As such, a game designer would, depending on business decisions, be motivated to use a 500x multiplier, as disclosed in Yee. *Id.*,

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2:15-20. It would also have been obvious to display the 500x “at the first selected position on a roulette board in the first graphical user interface,” as claimed. EX1003, ¶¶[0632]-[0642]. Kido’s first graphical user interface displays a betting board 30 with a star mark at the randomly selected position:



EX1007, Fig. 5.

A POSA would have found it obvious to display “500x” instead of the star mark at the first selected position in the combination of Kido and Yee because this would advantageously perform two functions, *i.e.*, showing which position was randomly selected and informing players of the increased payout applicable for that position. EX1003, ¶¶[0632]-[0642]. Further, Yee states that “[d]isplaying the multiplier ... adds mystery and excitement to the game. Displaying the multiplier

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in advance of displaying the game outcome also adds anticipation and further enjoyment to the game.” EX1009, 10:63-67. This disclosure would have further motivated a POSA to display “500x” at the first selected position.

Kido and Yee render obvious claims 7, 17, and 27.

4. Claims 8, 18, and 28

Claim 8 depends from claim 1, reciting “wherein the first increased payout is 49:1.” EX1031. Dependent claims 18 and 28 depend from claims 11 and 21, respectively, and recite similar limitations. *Id.* Kido renders obvious these limitations. EX1003, ¶¶[0643]-[0647].

As explained in the preceding section for claims 7, 17, and 27, Kido and Yee both disclose enhanced, multiplied payouts, *e.g.*, Kido discloses awarding “a game value obtained by multiplying a predetermined rate by the predetermined game value” (EX1007, ¶[0046]), and Yee discloses that “an amount of the payout [is] an amount of the wager multiplied by a ... multiplier” (EX1009, 1:9-16). Yee specifically discloses a multiplier of “50 times.” *Id.*, 2:15-20. As explained by Mr. Friedman, Yee’s multiplier of “50 times” is equivalent to the claimed “first increased payout [of] 49:1.” EX1003, ¶¶[0643]-[0644].

A POSA would have understood that the enhanced payout to be used is an arbitrary design choice. *Id.* As such, a game designer would, depending on business

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decisions, be motivated to use and display a 50x multiplier (*i.e.*, a 49:1 increased payout) as expressly disclosed in Yee.

Kido and Yee render obvious claims 8, 18, and 28.

5. Claims 9, 20, and 29

Claim 9 depends from claim 8, reciting “wherein the first not-selected payout is 29:1.” EX1031. Dependent claims 20 and 29 depend from claims 18 and 28, respectively, and recite similar limitations. *Id.* Kido renders obvious these limitations. EX1003, ¶¶[0648]-[0652]. As explained by Mr. Friedman, if some game payouts increase—as in claims 8, 18, and 28, with their 49:1 increased payout—maintaining the house edge would require other game payouts to decrease to compensate for the increased game payouts. *Id.* A POSA would have known that the standard payout for a straight up wager in roulette was 35:1, and that any decreased payout used to compensate for an increased payout elsewhere must necessarily be less than 35:1. *Id.* There are only a limited number of possibilities for payouts less than 35:1, and each one of those payout amounts, including 29:1, would have been obvious in view of a POSA’s common general knowledge. *Id.*

Kido and Yee render obvious claims 9, 20, and 29.

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C. Ground 3: Baron Anticipates, And Would Have Rendered Obvious, Claims 1, 2, 4-6, 10-12, 14-16, 19, 21, 22, 24-26, And 30.

1. Summary Of Baron

Baron, EX1008, entitled “Methods of Administering Wagering Games of Roulette with Progressive Side Wagers,” was filed December 2, 2014, and published on June 2, 2016. Baron is prior art under at least AIA 35 U.S.C. § 102(a)(1).

Baron discloses “[m]ethods of administering wagering games” involving accepting “a wager from a player on a game of roulette” on a “predicted roulette outcome,” *i.e.*, accepting a bet from a player relating to a number on a roulette wheel EX1008, Abstract, Fig. 1. The player’s predicted roulette outcome is compared to a plurality of roulette outcomes that are randomly selected in a single round of roulette. EX1008, ¶¶[0028], [0039]-[0041], Fig. 1. Baron states that the randomly selected outcomes for a round of roulette include “a primary roulette outcome” (*e.g.*, the position into which the ball lands) and “at least one ancillary roulette outcome” that “may be generated utilizing a random number generator (*e.g.*, operated by a control circuit).” *Id.*, ¶¶[0008], [0039], [0041], [0059], [0104].

Baron further describes that a player is eligible to receive a payout if the player’s predicted roulette outcome matches one or more of the randomly generated roulette outcomes. *Id.*, ¶¶[0042]-[0043], [0045]. The payout amount “increase[s] nonlinearly as a number of roulette outcomes matching the predicted roulette outcome increases[.]” *Id.*, ¶[0045]. For example, Baron discloses an embodiment having three

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randomly selected outcomes for a single spin of the wheel. *Id.*; *see also* ¶[0028]. A payout for a bet matching one, two, or all three of the randomly selected outcomes is: 7:1, 100:1, and “an entire amount of [a] progressive pot,” respectively. *Id.*

This process in Baron is performed for a single round of a wagering game, *i.e.*, for a single spin of the roulette wheel. *Id.*, ¶¶[0028], [0045].

2. Independent Claims 1, 11, And 21

(a) Preamble

To the extent limiting, Baron discloses the preambles of claims 1, 11, and 21. EX1003, ¶¶[0660]-[0662], [0704], [0714]; EX1030. Figure 6 of Baron shows a table 400 with multiple player stations 412, where “[e]ach player station 412 may include a separate player interface 416, which may be used for accepting wagers and displaying game information (e.g., game instructions, input options, wager information including virtual chips, game outcomes, etc.).” EX1008, ¶[0080].

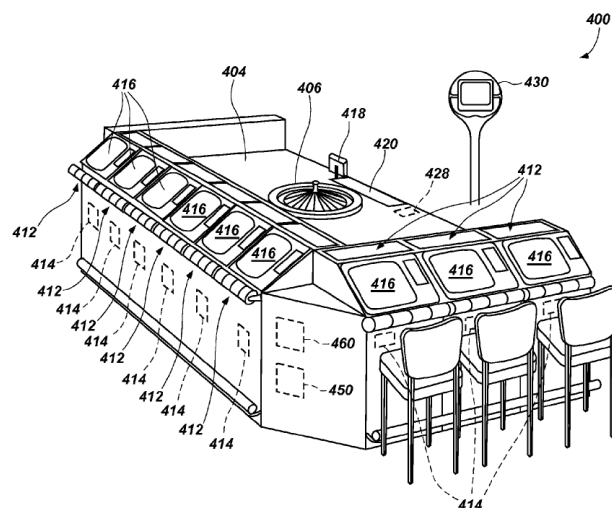


FIG. 6

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Id., Fig. 6.

The table 400 is a “system for wagering,” as recited in the preamble of claim 1. *See also id.*, Abstract, ¶¶[0001], [0007].

Baron’s title (“*Methods of Administering Wagering Games of Roulette with Progressive Side Wagers*”) and the disclosure in Figure 1 (which is “a flowchart diagram of *a method* of administering a wagering game”) shows that Baron discloses “a method for wagering,” as recited in the preamble of claim 11. *Id.*, Fig. 1, ¶[0011]; EX1003, ¶[0704].

Baron also discloses the “non-transitory computer-readable medium” recited in the preamble of claim 21. *Id.*, ¶[0714]. Figure 6 of Baron discloses local game processors 414 and central game processor 428 that “may be operably coupled to memory including one or more programs related to the rules of game play.” EX1008, ¶[0080]. The memory in Baron is a computer-readable medium containing instructions to perform a method for wagering.

In the related litigation, Patent Owner concedes that Baron discloses the preambles of claims 1, 11, and 21. EX1010, 35, 41-43.

(b) Element 1

Baron discloses element 1 of claim 1. EX1003, ¶[0663]; EX1030. Baron’s roulette wheel 406 is configured to receive a ball: “For embodiments using physical roulette wheels 406, the table 400 may further include a spinning, physical roulette

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wheel 406 that may be configured to receive a ball or other indicator, which may come to rest in individual, separate sections with numbers....” EX1008, ¶[0082]; *see also id.*, ¶¶[0027] (introducing of a ball “into a spinning, physical roulette wheel, and permitting the ball to come to rest on a roulette outcome”), [0040], [0068].

Patent Owner concedes that Baron discloses this limitation. EX1010, 35, 41.

(c) Element 2

Baron discloses element 2 of claim 1. EX1003, ¶[0664]; EX1030. Baron’s table 400 includes a roulette wheel 406: “The table 400 may include a playing surface 404, which may be, for example, a felt surface or an electronic display with a roulette wheel 406 mounted into the surface 404.” EX1008, ¶[0078]; *see also id.*, ¶[0027], [0040], Figs. 4, 7. The wheel in Baron “may be configured to receive a ball or other indicator, which may come to rest in individual, separate sections with numbers....” EX1008, ¶[0082]; *see also id.*, ¶¶[0027] (introducing a ball “into a spinning, physical roulette wheel, and permitting the ball to come to rest on a roulette outcome”), [0040], [0068].

Patent Owner concedes that Baron discloses this limitation. EX1010, 35 (“Baron describes a roulette game using a physical ball and wheel.”), 41.

(d) Element 3

Baron discloses (i) element 3 of claim 1, and (ii) element 1 of claim 11. EX1003, ¶¶[0665]-[0666], [0696]-[0701], [0705]; EX1030. Baron’s table 400

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includes a central game processor 428, and each player station 412 includes its own local game processor 414:

Each player interface 416 may be coupled respectively to its own local game processor 414 (shown in dashed lines), although, in some embodiments, a central game processor 428 (shown in dashed lines) may be employed and may communicate directly with player interfaces 416. In some embodiments, a combination of individual local game processors 414 and the central game processor 428 may be employed. Each of the processors 414 and 428 may be operably coupled to memory including one or more programs related to the rules of game play at the table 400.

EX1008, ¶[0080].

The central game processor 428 and local game processors 414 disclose the claimed “at least one hardware processor.” EX1003, ¶¶[0665]-[0666]. The game processors 414, 428 are collectively configured to implement each of the steps of claims 1, 11, and 21, as explained below. EX1008, Fig. 11 (a “simplified block diagram showing elements of [a] computing device[]” with “one or more processors 642”). EX1008, ¶¶[0120]-[0122], [0073], [0087], [0088], [0090]. Patent Owner concedes that Baron discloses “at least one hardware processor.” EX1010, 35, 41.

Baron also discloses element 1 of claim 11, requiring the step of “causing, by at least one hardware processor, a first graphical user interface to be presented on a

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first player device, wherein the first graphical user interface includes a roulette board.”

EX1003, ¶¶[0696]-[0701], [0705]; EX1030. Figure 6 of Baron discloses a table 400 with multiple player stations 412, and the player stations 412 disclose the claimed “first player device”:

Each player station 412 may include a separate player interface 416, which may be used for accepting wagers and displaying game information (e.g., game instructions, input options, wager information including virtual chips, game outcomes, etc.). The player interface 416 may include, for example, a display screen in the form of a touchscreen, which may be at least substantially flush with, or raised up from, the playing surface 404 in some embodiments.”

EX1008, ¶[0080], Fig. 6. As shown above, each of Baron’s player stations 412 includes a player interface 416 that may include “a display screen in the form of a touchscreen.” *Id.*, ¶[0080].

Baron states that “[w]hen an electronic display is provided,... the display may include a touchscreen and may be used for display of, and in some embodiments, interaction with, information regarding the wagering game (e.g., wagers accepted, historical information, current round information, etc., as described previously in connection with FIGS. 2 and 3)” (EX1008, ¶[0079]):

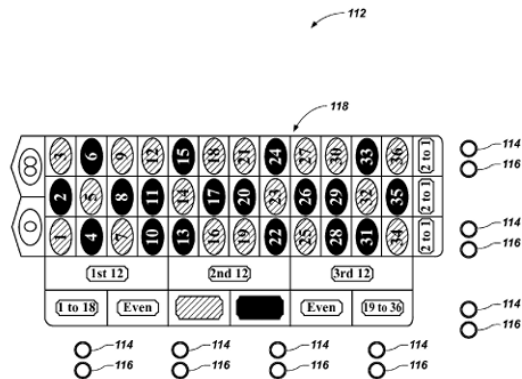


FIG. 2

Id., Fig. 2. Figure 2 shows a playing surface 112 with wagering area 118 “configured for acceptance of bonus, odds, evens, red, black, split, box, specific number and color, and other roulette bets, wherein the receipt of a wagering element within a specific area, on a border between areas, or at an intersection among areas may reflect receipt of a predicted roulette outcome or a predicted characteristic of a roulette outcome. In some embodiments, the playing surface 112 may include an area for electronically showing the outcome of randomly generated roulette outcomes....” *Id.*, ¶[0056].

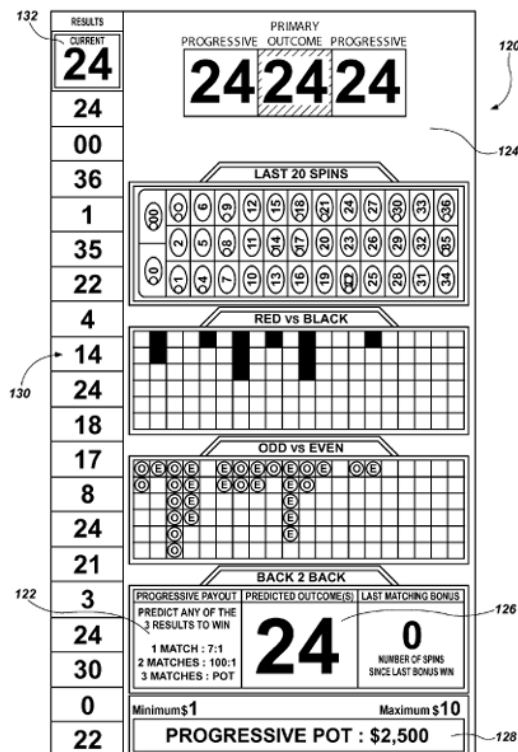


FIG. 3

Id., Fig. 3. Figure 3 “is a display layout 120 that may be used in connection with” the playing surface 112 of Figure 2 “for implementation of a method of administering a wagering game.” *Id.*, ¶[0057].

The wagering area 118 of Figure 2—used in connection with the display layout 120 of Figure 3—is a “roulette board,” as claimed. EX1003, ¶[0700]. Baron states that the information of Figure 2 is provided on an “electronic display” but does not explicitly state that it is presented on a player interface 416. EX1008, ¶[0079]. A POSA would have found this obvious, however, because Baron discloses that the player interfaces 416 are “used for accepting wagers and displaying game information (e.g., game instructions, input options, wager information including

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virtual chips, game outcomes, etc.),” and the wagering area 118 is “configured for acceptance of ... roulette bets.” *Id.*, ¶¶[0080], [0056]; EX1003, ¶[0700].

In Baron, processors 414 and 428 can be coupled to memory that relates to rules of game play. *Id.*, ¶[0080]. Thus, each GUI is generated by the central game processor 428, a local game processor 414, or a combination thereof. *Id.*

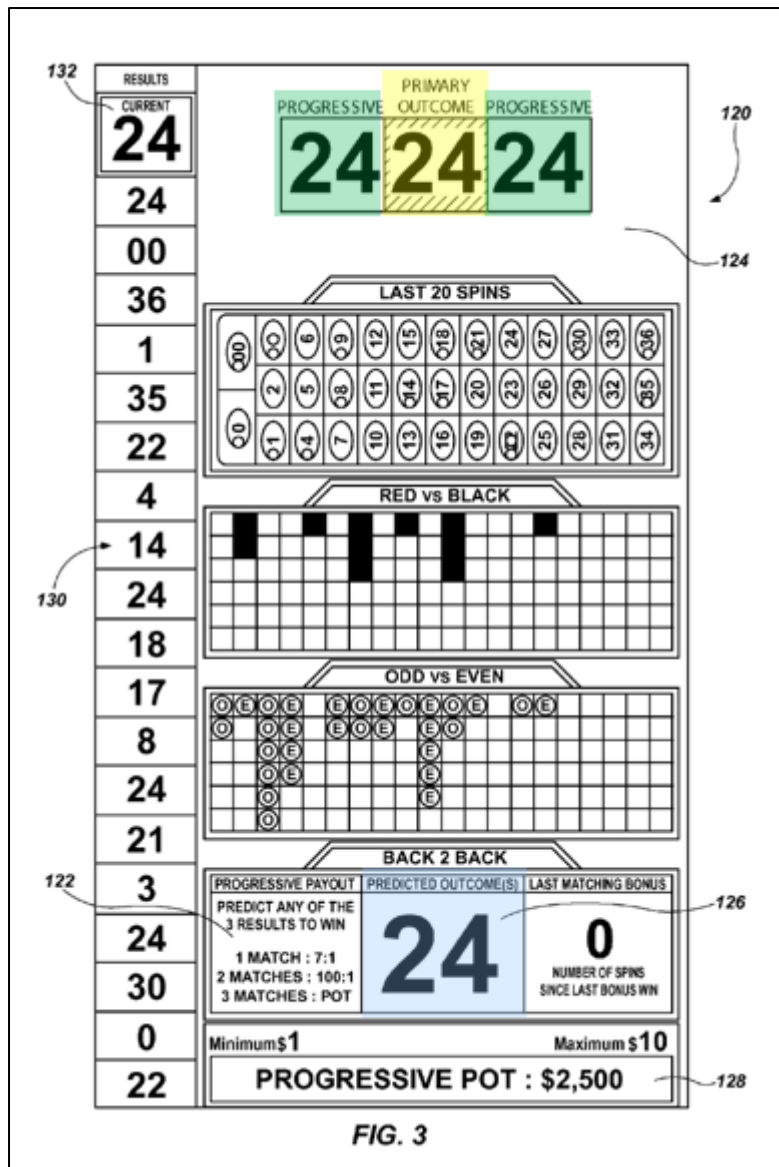
(e) Element 4

Baron discloses (i) element 4 of claim 1, (ii) element 2 of claim 11, and (iii) element 1 of claim 21. EX1003, ¶¶[0667]-[0675], [0706], [0715]; EX1030. In embodiments of Baron, for a given round of roulette, “[a] plurality of roulette outcomes may be generated, and each roulette outcome may be randomized independently from the other roulette outcomes.” EX1008, ¶¶[0039], [0028]. These randomly generated numbers can be “a number from zero to thirty-six or from zero to thirty-six and double zero,” which represent the numbers on a roulette wheel. *Id.*, ¶[0041]. One of the randomly generated outcomes may be a “primary roulette outcome” generated by “introducing a [ball] into a physical, spinning roulette wheel and permitting the [ball] to come to rest on a roulette outcome.” *Id.*, ¶¶[0039]-[0040]. Another one of the randomly generated outcomes “may be generated utilizing a random number generator (e.g., operated by a control circuit).” *Id.*, ¶[0041]. Figure 3 of Baron, which is a display layout for a “method of administering a wagering game,” (*id.*, ¶[0013]), contains an outcome display area 124 that shows one primary outcome

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(24) and two ancillary outcomes (also 24), all three of which are for a position on the roulette wheel (24). *Id.*, Fig. 3. Thus, Baron discloses “randomly or pseudo-randomly select[ing] a first selected position of the plurality of positions on the roulette wheel.”

Baron also discloses that the “randomly or pseudo-randomly ... first selected position of the plurality of positions on the roulette wheel [has] a first increased payout.” EX1003, ¶[0668]. The annotated version of Figure 3 from Baron shown below is instructive.



EX1008, Fig. 3.

At the top of Figure 3 are three randomly generated roulette outcomes, one primary outcome (highlighted in yellow) and two progressive (ancillary) outcomes (highlighted in green). *Id.* At the bottom of Figure 3, highlighted in blue, is the player's "predicted roulette outcome" for the number 24, which matches the randomly generated primary and progressive outcomes which are also 24. In this instance, the

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player who placed a bet on 24 has matched all three randomly generated roulette outcomes and will receive an increased payout of “POT.” *Id.* Had the player’s predicted roulette outcome matched two of the randomly generated roulette outcomes, the player would have received an increased payout of 100:1. *Id.*, Fig. 3, ¶[0045]. The “POT” and 100:1 payouts of Baron are “increased” payouts because they are higher than (i) the 35:1 payout for wins on straight roulette bets under conventional roulette rules, and (ii) Baron’s 7:1 payout applicable when a player’s bet matches just one randomly generated roulette outcome. EX1003, ¶¶[0667]-[0668]. Accordingly, position 24 in the example of Baron Figure 3 is randomly or pseudo-randomly selected “to have a first increased payout” (100:1 or POT), as claimed.

Indeed, Baron’s increased payouts are no different than those of the ’371 patent. In embodiments of Baron, the “primary roulette outcome” can be generated by a ball falling into a pocket on the roulette wheel (EX1008, ¶¶[0039]-[0040]), just like the ball landing into any of the plurality of positions on the roulette wheel as claimed in the ’371 patent. *E.g.*, EX1011, claim 1. Further, when the player’s bet in Baron matches both the primary outcome and an ancillary roulette outcome randomly selected by Baron’s at least one hardware processor (EX1008, ¶[0041]), the player receives an increased payout of 100:1 (*Id.*, ¶[0045], Fig. 3), which is exactly like the ’371 patent’s “increased payouts” of 49:1 or 499:1 that a player receives when his or her bet matches (1) the pocket into which the ball has landed, and (2) the randomly or

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pseudo-randomly selected first selected position. EX1011, 5:17-34. In both Baron and the '371 patent, the increased payout (*e.g.*, 100:1 in Baron or 49:1 in the '371 patent) is awarded when the player bets on the position into which the ball lands and that position has also been randomly or pseudo-randomly selected by a hardware processor.

Baron's "first increased payout" is for the spin of the roulette wheel. EX1003, ¶[0669]. As explained above, the "first increased payout" becomes relevant when the randomly or pseudo-randomly first selected position matches the player's predicted roulette outcome. EX1008, ¶[0045], Fig 3. Baron explains that the plurality of roulette outcomes are "generated in a single round of the wagering game." *Id.*, ¶¶[0039], [0028]. Baron's detailed discussion of Figure 3 states that the "randomized roulette outcomes [are] for the current round of play." *Id.*, ¶[0058]. And Figure 1 of Baron, which is a flowchart showing the method of administering the wagering game in Baron, discloses only one step (106) in which a plurality of roulette outcomes are generated. *Id.*, Fig. 1. Accordingly, the first increased payout associated with randomly generated roulette outcomes is for "the spin of the roulette wheel," as claimed.

Baron discloses that the randomly selected outcomes are selected prior to the ball landing into any of the plurality of positions on the roulette wheel for the spin. EX1003, ¶¶[0667]-[0675]. Baron explains that its processors "randomly generate one

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or more roulette outcomes ... at the close of wagering or at the beginning of a new round of play.” EX1008, ¶[0088]. In any of these sequences in Baron, the roulette outcomes are randomly generated prior to the ball falling into a position on the roulette wheel. While Baron’s description of randomly selecting outcomes “at the close of wagering or at the beginning of a new round of play” is with respect to the table 470 of Figure 7 (and not the table 400 of Figure 6 referenced above), a POSA would have immediately envisaged applying this approach to the table 400 of Figure 6. *See Kennametal*, 780 F.3d at 1382-83. A POSA would recognize this approach as having equal applicability to Figures 6 and 7 and therefore would have immediately envisaged using it with respect to Figure 6’s table 400. EX1003, ¶[0674].

Further, a POSA would have been motivated to apply Baron’s random-number-selection-before-the-ball-lands approach to the table 400. *See Bos. Sci. Scimed, Inc. v. Cordis Corp.*, 554 F.3d 982, 991 (Fed. Cir. 2009) (“Combining two embodiments disclosed adjacent to each other in a prior art patent does not require a leap of inventiveness”). Baron’s background section explains that “players are generally open to, and sometimes specifically seek out, new and more interesting ways to play roulette” (EX1008, ¶[0002]), and a POSA would have recognized that using Baron’s random-number-selection-before-the-ball-lands approach with Baron’s table 400 of Figure 6 would be interesting to players: Selecting random outcomes before the ball lands (as taught in Baron’s ¶[0088]) would add an element of randomness and

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excitement to enhance gameplay at the table 400. Using this technique in the context of Figure 6's table 400 would have been well within a POSA's skill. *Id.*; EX1003, ¶[0674]. Baron thus discloses "randomly or pseudo-randomly select[ing] a first selected position of the plurality of positions on the roulette wheel ... prior to the ball landing into any of the plurality of positions on the roulette wheel for the spin."

Patent Owner argues in the related litigation that "the progressive pot is based on multiple spins, and thus cannot be awarded based on the 'spin of the roulette wheel.'" EX1010, 36, 41-43. Patent Owner is wrong for the reasons explained above in Section A.2(e). As explained, the claim language does not limit the *source* of the first payout, and nothing in the intrinsic evidence excludes the first payout from being sourced from a progressive pot accumulated over rounds. In any event, a progressive payout could be sourced from a single round, as explained above in Section IV.A.2(e) with respect to Kido's progressive payout.

(f) Element 5

Baron discloses (i) element 5 of claim 1, (ii) element 3 of claim 11, and (iii) element 2 of claim 21. EX1003, ¶¶[0676]-[0679], [0707], [0716]; EX1030. Baron discloses generating roulette outcomes by introducing a physical ball into a physical spinning roulette wheel and letting the ball come to rest on a roulette outcome, which is "automatically detected and conveyed to a control circuit." EX1008, ¶[0040]. As discussed for element 4 above, the 100:1 payout disclosed in

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Baron is only available when the player's bet matches (i) the primary roulette outcome (e.g., ball into which the pocket has landed), and (ii) the randomly generated roulette outcome. *Id.*, ¶¶[0041], [0045]. Thus, in Baron, the hardware processor must determine that the ball has "landed into the first selected position" to receive the 100:1 payout.

The processor's determination occurs "for the spin [of the roulette wheel]." In Baron, determining that the ball has landed into a pocket on the wheel is a prerequisite to determining that a player has placed a winning bet (*i.e.*, the predicted outcome matches the randomly generated outcome). EX1008, ¶¶[0039], [0042]. The roulette outcomes are generated "in a single round of the wagering game." *Id.*, ¶¶[0039], [0028]. Thus, determining that the ball has landed into the "first selected position" occurs for a single round of a wagering game, *i.e.*, for the spin of the roulette wheel.

In the related litigation, Patent Owner effectively concedes that Baron discloses this limitation. EX1010, 36, 41-43. Patent Owner asserts that "Baron does not disclose [this element] for the same reasons it does not disclose [the analogous element] of the '014 patent above" (EX1010, 41-43), however, Patent Owner provides no such assertion nor reasoning regarding this element of the '014 Patent. EX1010, 35-36.

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(g) Element 6

Baron discloses (i) element 6 of claim 1, (ii) element 4 of claim 11, and (iii) element 3 of claim 21. EX1003, ¶¶[0680]-[0682], [0708], [0717]; EX1030.

Baron discloses that “the first increased payout is applicable to a first bet made on the first selected position for the spin of the roulette wheel.” Baron explains that “[e]ach player station 412 may include a separate player interface 416, which may be used for accepting wagers[.]” EX1008, ¶[0080]. Baron also discloses that the “player interface 416 may include, for example, a display screen in the form of a touchscreen.” *Id.* Baron thus describes touchscreens, *i.e.*, GUIs, which players use to place bets on numbers on a roulette wheel.

As discussed above, the first increased payout of 100:1 becomes relevant when the player’s first bet matches the number into which the ball has fallen and one of the randomly generated plurality of roulette outcomes. EX1008, ¶¶[0041], [0045], Fig. 3. These roulette outcomes are generated “in a single round of the wagering game,” (*id.*, ¶¶[0039], [0028]) meaning the first increased payout applicable to the first bet made on the first selected position is “for the spin of the roulette wheel” as claimed.

Baron discloses that the first increased payout “is greater than a first non-selected payout that would have been applicable to the first bet on the first selected position for the spin had the first selected position not been selected by the randomly or pseudo-randomly selecting the first selected position for the spin.” As discussed

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above, when the player bets on a number and that number matches one of a plurality randomly generated roulette outcomes and the “primary outcome” which can be determined by the ball falling into a pocket on the wheel, that number has an increased payout of 100:1. EX1008, ¶¶[0045], Fig. 3. By contrast, had the first selected position not been randomly selected by the hardware processor, the player would only be eligible for a lower payout of 7:1, *i.e.*, a “first non-selected payout.” EX1003, ¶¶[0680]-[0682].

Baron anticipates and renders obvious claims 1, 11, and 21.

3. Claims 2, 12, And 22

Baron discloses the limitations of claims 2, 12, and 22. EX1003, ¶¶[0683]-[0686], [0709], [0718]; EX1031. Each player interface 416 in Baron includes a “display screen in the form of a touchscreen” that is adjacent to the roulette wheel, and Baron’s system also includes an “upright common display 430” adjacent to the roulette wheel (EX1008, ¶¶[0080], [0083]):

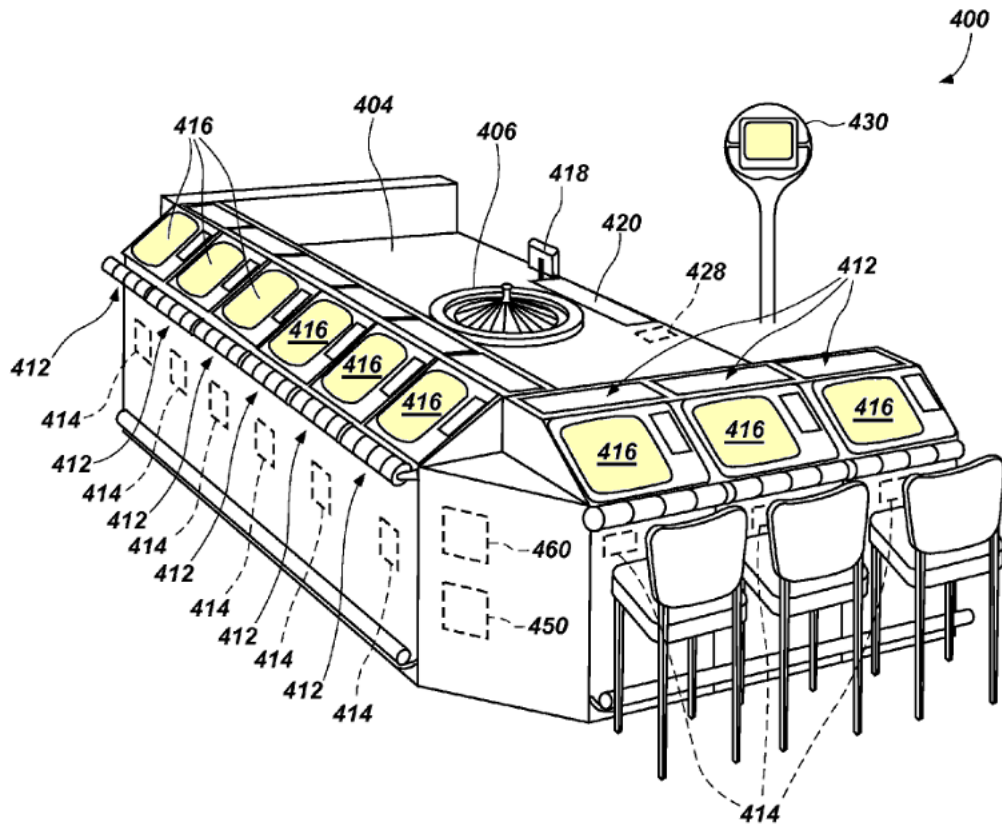
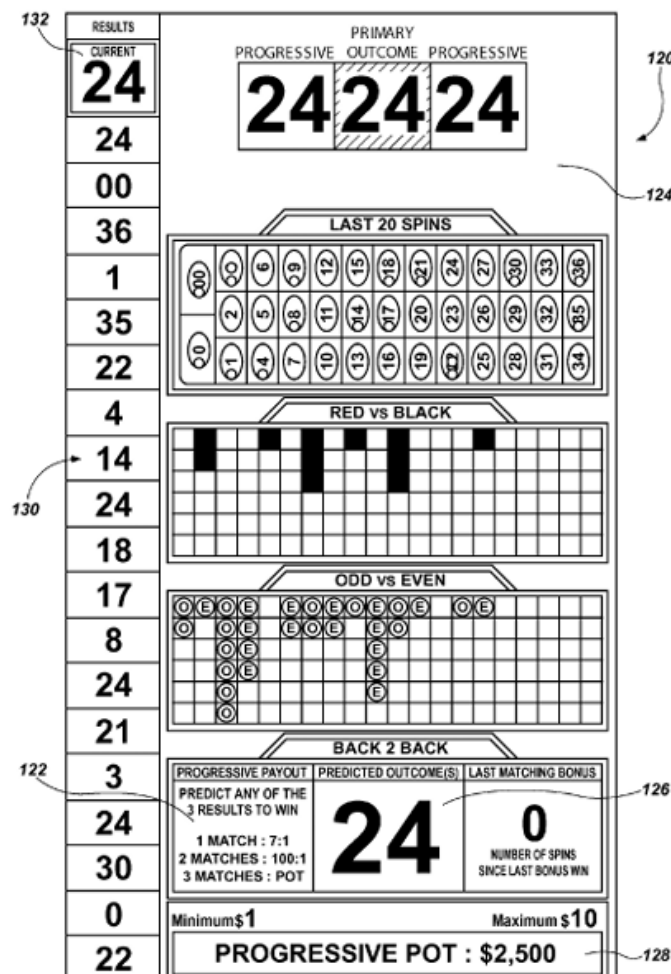


FIG. 6

Id., Fig. 6.

The player interfaces 416 and the common display 430 are configured to display game information, including an indication of the first selected position. *Id.*, ¶¶[0080], [0083], [0088] (“display all winning game conditions associated with the random game outcomes on the video display 430”). Baron states that game information includes “the information described previously in connection with FIGS. 2 and 3 and a wide variety of other information considered useful to the players” (*id.*, ¶[0083]), and the game information shown in Figure 3 includes a position of the first selected position:



Id., Fig. 3; ¶[0058] (in “outcome display area 124,” the “three, independently randomized roulette outcomes for the current round of play may be displayed.”).

Baron anticipates and renders obvious claims 2, 12, and 22.

4. Claims 4, 14, And 24

Baron discloses the limitations of claims 4, 14, and 24. EX1003, ¶[0687]-[0692], [0710], [0719]; EX1031. As explained above, Baron discloses randomly or pseudo-randomly selecting a first selected position associated with a first increased

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payout for the spin of the roulette wheel prior to the ball landing into any of the plurality of positions on the roulette wheel for the spin and determining that the first increased payout is applicable to a first bet made on the first selected position for the spin of the roulette wheel wherein the first increased payout is greater than a first non-selected payout.

For the reasons explained above in Section IV.A.4, the fact that claims 4, 14, and 24 recite randomly selecting a “second selected position” prior to the ball landing, in addition to the randomly selected “first selected position,” is of no consequence. In view of Baron’s disclosure discussed above, it would have been obvious to randomly select a second selected position for a second increased payout before the ball lands. Simply reciting two or more of something as opposed to a single instance of that thing does not, by itself, qualify as a nonobvious difference. *See, e.g., In re Harza*, 274 F.2d at 671.

For example, Baron discloses that the number of roulette outcomes generated may be greater than four, (EX1008, ¶[0039]), and that the payout amount increases as the number of roulette outcomes matching the bet increases (*id.*, ¶[0045]). Applying that logic to Baron’s Figure 3, a POSA would readily envision randomly generating five roulette outcomes with a payout structure of 7:1 for one match, 100:1 for two matches, 150:1 for three matches, 200:1 for four matches, and POT for five matches. EX1003, ¶[0687]-[0692]. In this example, where the primary outcome and one of

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the random number generated roulette outcomes is the number 24, and the other three random number generated roulette outcomes are the number 19, a first bet placed on 24 would yield a payout of 100:1, while a second bet placed on 19 would yield a payout of 150:1. Thus, the second increased payout would be (i) different than the first increased payout, and (ii) greater than the non-selected payout that would have been applicable had the second selected position (19, in this example) not been selected.

Baron recognizes that roulette players “are generally open to, and sometimes seek out, new and more interesting ways to play roulette.” EX1008, ¶[0002]. A POSA would have recognized that using different increased payouts for the first and second selected positions would add excitement for players, thus motivating the POSA to select this option. Further, the random selection of multiple positions with different increased payouts was known in the art, which would have further motivated a POSA to employ this technique in Baron. *See, e.g.*, EX1018 (Raedt), Abstract (“randomly selecting a plurality of numbers as bonus game numbers,” each bonus game number having a randomly selected (and therefore, different) bonus).

Finally, given the disclosure in Baron relating to the first increased payout (EX1008, ¶[0045], Fig. 3), a POSA would have found it obvious and routine to have the second increased payout for the second selected position be “greater than a second non-selected payout that would have been applicable to a second bet on the second

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selected position for the spin had the second selected position not been selected by the randomly or pseudo-randomly selecting the second selected position for the spin,” as claimed. EX1003, ¶¶[0687]-[0692]. The concept recited in claims 4, 14, and 24 is nothing more than the concept recited in claims 1, 11, and 21, but applied to a different roulette number.

Baron renders obvious claims 4, 14, and 24.

5. Claims 5, 15, And 25

Baron discloses the limitations of claims 5, 15, and 25. EX1003, ¶¶[0693]-[0695], [0711], [0720]; EX1031. Baron discloses that “actions performed in connection with administering a wagering game ... may be accomplished automatically by one or more processors 480, which may occur in response to croupier input or may occur automatically in response to other game events.” EX1008, ¶[0088]; *see also id.*, ¶[0068] (“[O]utcome identifiers [e.g., balls] ... may be automatically introduced into the roulette wheels 204 by identifier introduction mechanisms.”). A POSA would have understood that the “actions” to be performed automatically for administering a wagering game using the table 400 of Figure 6 would include causing the ball and roulette wheel to spin. EX1003, ¶[0693]. Further, a POSA would have been motivated to use Baron’s one or more hardware processors to achieve these automatic actions because causing the ball and wheel to spin is a fundamental step of playing roulette meaning a POSA would have immediately

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envisioned having a processor perform this action. *Id.*

Baron anticipates and renders obvious claims 5, 15, and 25.

6. Claims 6, 16, And 26

Baron discloses the limitations of claims 6, 16, and 26. EX1003, ¶¶[0696]-[0701], [0712], [0721]; EX1031. As discussed in Section IV.C.2(d), Baron's hardware processor generates a first graphical user interface to be presented on a first player device, wherein the first graphical user interface includes a roulette board.

Further, the at least one hardware processor is configured to highlight the first selected position in response to the first selected position being randomly selected. Baron's randomly selected outcomes are displayed on the display layout 120. EX1008, ¶[0058] ("The display layout 120 may further include an outcome display area 124 in which the three, independently randomized roulette outcomes for the current round of play may be displayed."). A POSA would have understood that the display of the randomly selected positions on the display layout 120 serves as a type of highlighting, thereby disclosing this limitation. EX1003, ¶¶[0696]-[0701].

Baron anticipates and renders obvious claims 6, 16, and 26.

7. Claims 10, 19, and 30

Baron discloses the limitations of claims 10, 19, and 30. EX1003, ¶¶[0702]-[0703], [0713], [0722]; EX1031. Baron discloses multiple player stations 412, each of which includes a player interface 416 through which a player can place wagers via

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a touchscreen, including wagers on only a single position of the roulette wheel. EX1008, ¶[0078]; *see also* ¶[0080], [0008], Figures 2, 4, 6-7. Figure 1 of Baron “is a flowchart diagram of a method of administering a wagering game,” and step 102 states that a player’s wager is on a predicted roulette outcome that is “a number from zero to thirty-six or from zero to thirty-six and double zero,” *i.e.*, “a single position on the roulette wheel” (*id.*, ¶[0011], [0028]):

D. Ground 4: Claims 7-9, 17-18, 20, And 27-29 Would Have Been Obvious In View Of Baron And Yee

1. Motivations To Combine

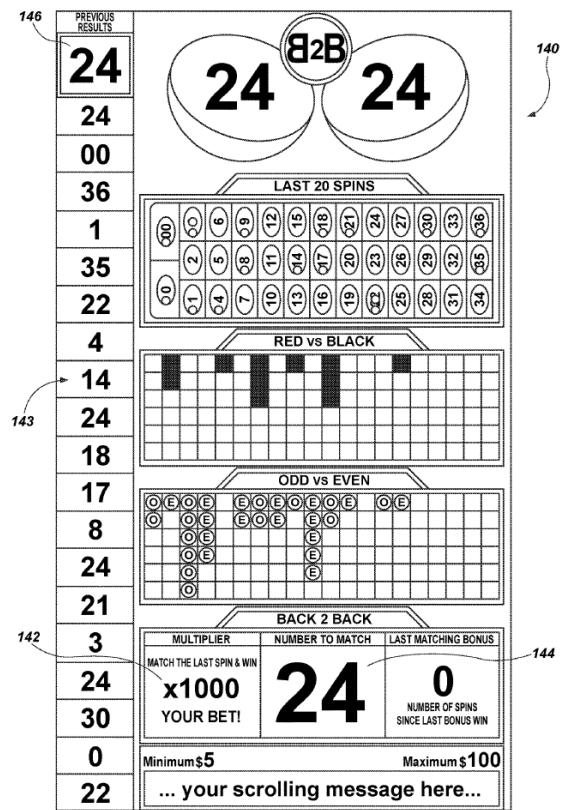
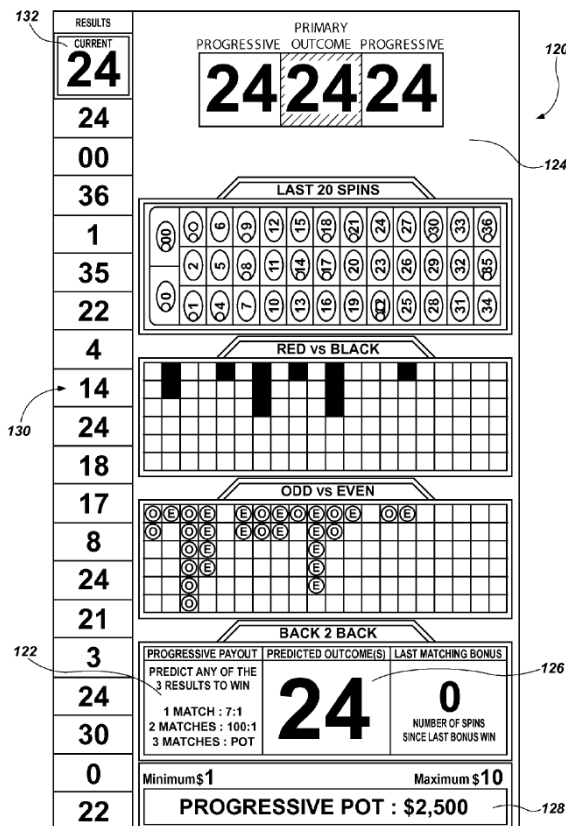
It would have been obvious to one of skill in the art at the time of the ’371 patent to modify the roulette gaming system of Baron to include features of Yee. EX1003, ¶[0724]-[0725].

A POSA also would have recognized the benefit to players of incorporating into Baron the payout enhancement feature (“x1000 YOUR BET!” EX1009, 13:52-56), from Yee. For example, a POSA would have understood that gambling players have significant financial interest in increased payouts, so the benefit of broadcasting to the players the amount by which their payout may increase (*i.e.*, the disclosure in Yee) would have been readily apparent. Similarly, Baron recognizes that roulette players “are generally open to, and sometimes seek out, new and more interesting ways to play roulette.” EX1008, ¶[0002]. Displaying the potential for an enhanced payout of 500x would add excitement for players, such that a POSA would have been

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motivated to incorporate the concept from Yee into the game disclosed in Baron.

Moreover, Baron and Yee disclose very similar subject matter (multi-player roulette systems using computer processors to accept bet, display game information, and perform the functions associated with playing the game). *See, e.g.*, EX1008, ¶¶[0001], [0031]-[0032], [0080]-[0081], Figs. 1, 3; EX1009, 7:49-52, 14:42-50, 19:30-46, Figs. 1, 3. Indeed, a comparison of Figures 3 and 6 from Baron with Figures 3 and 5a from Yee shows how closely aligned the subject matter between the two is.



EX1008, Fig. 3 (Baron on the left); EX1009, Fig. 3 (Yee on the right).

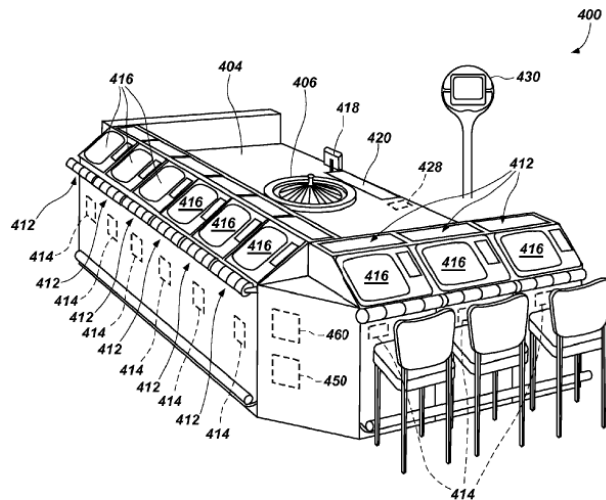


FIG. 6

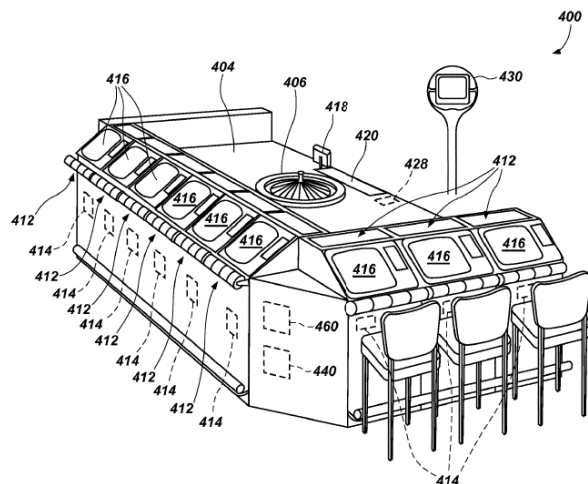


FIG. 5A

EX1008, Fig 6 (Baron on the left); EX1009, Fig. 5a (Yee on the right). Further, Baron and Yee were filed by the same applicant (Bally Gaming, Inc.), and there is overlap in inventorship between the two references.

In view of at least the above factors, a POSA would have naturally looked to Yee when seeking to improve on and/or enhance the functionality of Baron's roulette system. In addition, a POSA would have been motivated to modify Baron's roulette gaming system to use various features of Yee because the combination amounts to applying a known technique to yield predictable results.

2. Claims 7, 17, And 27

Claims 7, 17, and 27 are anticipated by and obvious over Baron because the language added in claims 7, 17, and 27 is non-limiting printed matter. *See* Section IV.B.4 above.

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In any case, the combination of Baron and Yee renders obvious the limitations of claims 7, 17, and 27. EX1003, ¶¶[0726]-[0736]. Both Baron and Yee relate to roulette gaming systems in which a player can receive an enhanced payout based on a randomly selected number. In Baron, the player receives an enhanced payout when the player's bet matches one or more randomly generated roulette outcomes. EX1008, ¶¶[0041], [0045]. In Yee, "an amount of the payout [is] an amount of the wager multiplied by a randomly selected multiplier." EX1009, 1:9-16. Yee further discloses that such multipliers may be "10 times, 25 times, 50 times, 100 times, 250 times, 500 times, and 1,000 times for a payout." *Id.*, 2:15-20; *see also id.*, Fig. 3 (displaying the text "x1000 YOUR BET!").

Given these disclosures, a POSA would have understood that the enhanced payout to be used and displayed is an arbitrary design choice. As such, a game designer would, subject to business decisions, be motivated to use a 500x multiplier. As explained by Mr. Friedman, a POSA would have found it obvious to incorporate a 500x multiplier on a GUI to increase player excitement and interest. EX1003, ¶¶[0726]-[0736]. Moreover, while Yee expressly discloses that the multiplier can be "500 times" (EX1009, 2:15-20), Mr. Friedman explains that a 500x multiplier was well-known in the art. EX1003, ¶[0729]. Accordingly, a POSA would have found it obvious to add a 500x multiplier to Baron.

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Further, it would have been obvious to display the 500x “at the first selected position on a roulette board in the first graphical user interface,” as claimed. EX1003, ¶¶[0730]-[0736]. Baron discloses a roulette board, and a POSA would have found it obvious to display “500x” on the roulette board at the first selected position in the combination of Baron and Yee because this would advantageously perform two functions, *i.e.*, showing which position was randomly selected and informing players of the increased payout applicable for that position, both increasing player excitement and interest.

3. Claims 8, 18, And 28

Baron renders obvious claims 8, 18, and 28. EX1003, ¶¶[0737]-[0741]. As explained in the preceding section for claims 7, 17, and 27, both Baron and Yee disclose enhanced, multiplied payouts, *e.g.*, Baron discloses awarding a payout of 100:1 or “POT” (EX1008, ¶¶[0041], [0045]), and Yee discloses that “an amount of the payout [is] an amount of the wager multiplied by a ... multiplier” (EX1009, 1:9-16). Yee specifically discloses a multiplier of “50 times.” *Id.*, 2:15-20. As explained by Mr. Friedman, Yee’s multiplier of “50 times” is equivalent to the claimed “first increased payout [of] 49:1.” EX1003, ¶¶[0737]-[0738].

A POSA would have understood that the enhanced payout is an arbitrary design choice. As Mr. Friedman explains, a POSA would be motivated to use an increased payout such as 49:1 to increase player excitement and interest, but would also

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understand that any such increased payout over the traditional roulette payout is an arbitrary decision so long as the overall house edge for that game is suitable. EX1003, ¶[0739]. Mr. Friedman also explains that a 49:1 payout was well-known in the art. *Id.*, ¶[0740]. Thus, a POSA would, subject to business decisions, be motivated to use a 50x multiplier (*i.e.*, a 49:1 increased payout) as expressly disclosed in Yee.

Baron and Yee render obvious claims 8, 18, and 28.

4. Claims 9, 20, And 29

Baron renders obvious claims 9, 20, and 29. EX1003, ¶¶[0742]-[0746]. As discussed for the preceding claims, a POSA would have understood a payout to be an arbitrary design choice. Indeed, given the increased payout of 49:1 recited in claims 8, 18, and 28, a POSA would have been motivated to use a decreased payout of 29:1 for other payouts, *i.e.*, the first non-selected payout, to maintain the house edge. *Id.* A POSA would recognize that such a payout would be a reasonable business decision, as it would help replenish funds that were used to pay out the first increased payout of 49:1 or 500x. *Id.* Further, the '371 patent identifies nothing special or novel about a 29:1 payout and, as Mr. Friedman explains, a 29:1 payout was well-known in the art. *Id.*, ¶[0745]. For these reasons, a POSA would have found it obvious to modify Baron to use a payout of 29:1 for the first non-selected payout.

V. CONCLUSION

Petitioner respectfully requests IPR of claims 1-2, 4-12, 14-22, and 24-30.

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VI. MANDATORY NOTICES PURSUANT TO 37 C.F.R. § 42.8(a)(1)

Pursuant to 37 C.F.R. § 42.8(a)(1), the mandatory notices identified in 37 C.F.R. § 42.8(b) are provided below as part of this petition.

A. 37 C.F.R. § 42.8(b)(1): Real Parties-In-Interest

The real parties-in-interest are Light & Wonder, Inc. and LNW Gaming, Inc.

B. 37 C.F.R. § 42.8(b)(2): Related Matters

Pursuant to 37 C.F.R. § 42.8(b)(2), Petitioner is aware of the following patent infringement lawsuit that involves the '371 patent:

- *Evolution Malta Limited v. Light & Wonder, Inc.*, No. 2:24-cv-00993-CDS-NJK (D. Nev.)

Petitioner is also concurrently filing Petitions for *Inter Partes* Review of the '024 and '014 patents, which are related to the '371 patent challenged herein.

C. 37 C.F.R. § 42.8(b)(3), (4): Lead And Back-Up Counsel And Service Information

Petitioner provides the following designation of counsel:

Lead Counsel	Back-up Counsel
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Pursuant to 37 C.F.R. § 42.10(b), a Power of Attorney for Petitioner accompanies this petition. Please address all correspondence to lead and back-up counsel at the addresses above. Petitioner also consents to electronic service by email at the email addresses listed above.

Dated: May 30, 2025

Respectfully submitted,

/Joshua R. Nightingale/

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing petition for *Inter Partes* Review of U.S. Patent No. 11,756,371, including all exhibits, was served on May 30, 2025 via Express Mail delivery directed to the attorney of record for the patent at the following address:

Byrne Poh LLP
Attn: Matthew Byrne
400 Rella Boulevard
Suite 165, #106
Suffern, NY 10901

In addition, a courtesy copy of the foregoing petition for *Inter Partes* Review of U.S. Patent No. 11,756,371, including all Exhibits, was served on litigation counsel for assignee Evolution Malta Limited at the following address:

Sidley Austin LLP
Attn: Ching-Lee Fukuda
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New York, NY 10019

Date: May 30, 2025

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CERTIFICATE OF WORD COUNT UNDER 37 C.F.R. § 42.24(a)

I, the undersigned, do hereby certify that the attached petition contains 13,935 words, as measured by the Word Count function of Microsoft Word. This is less than the limit of 14,000 words as specified by 37 C.F.R. § 42.24(a)(1)(i).

Date: May 30, 2025

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