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 Nos. 10,629,024; 11,011,014; 11,756,371

DECLARATION OF STACY FRIEDMAN IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NOS. 10,629,024, 11,011,014, 11,756,371

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

TABLE OF CONTENTS

Page

I. INTRODUCTION 1

II. QUALIFICATIONS 2

III. MATERIALS REVIEWED 7

IV. LEVEL OF ORDINARY SKILL IN THE ART 8

V. SUMMARY OF OPINIONS 10

A. '024 Patent 10

B. '014 Patent 11

C. '371 Patent 11

VI. LEGAL STANDARDS 12

VII. DESCRIPTION OF THE CHALLENGED PATENTS 17

A. Provisional Application 17

B. '024 Patent 18

C. '014 Patent 23

D. '371 Patent 23

VIII. CLAIM CONSTRUCTION 25

IX. TECHNOLOGY BACKGROUND 26

A. Roulette and Other Wheel Games 26

B. New Games, Side Bets, and Game Modifications 29

C. Electronic Implementations of Table Games 31

D. Gaming Mathematics 37

E. Payouts 39

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

TABLE OF CONTENTS
(Continued)

Page

X. THE PURPORTED INNOVATION OF THE CHALLENGED PATENTS 45

XI. SUMMARY OF APPLIED PRIOR ART 52

A. Kido 52

B. Yee 54

C. Baron 55

XII. ANALYSIS OF '024 PATENT 56

A. Ground 1: Kido 56

1. Claim 1 56

2. Claim 3: The system of claim 1, wherein the hardware processor is further configured to close bets when the roulette wheel and the ball are determined to have been spun. 82

3. Claim 4: The system of claim 1, further comprising a display adjacent to the roulette wheel that indicates the first selected position. 86

4. Claim 5: The system of claim 4, wherein the hardware processor is further configured to cause a lightning visual effect to be presented when in connection with indicating the first selected position. 87

5. Claim 7: The system of claim 1, wherein the hardware processor is further configured to: 92

6. Claim 8 94

7. Claim 10: The method of claim 8, further comprising closing bets when the roulette wheel and the ball are determined to have been spun. 96

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

TABLE OF CONTENTS
(Continued)

Page

8. Claim 11: The method of claim 8, further comprising indicating the first selected position on a display adjacent to the roulette wheel. 96

9. Claim 12: The method of claim 11, further comprising causing a lightning visual effect to be presented when in connection with indicating the first selected position 96

10. Claim 14: The method of claim 8, further comprising: 97

11. Claim 15 97

12. Claim 17: The non-transitory computer-readable medium of claim 15, wherein the method further comprises indicating the first selected position on a display adjacent to the roulette wheel. 99

13. Claim 18: The non-transitory computer-readable medium of claim 17, wherein the method further comprises comprising causing a lightning visual effect to be presented when in connection with indicating the first selected position. 99

14. Claim 20: The non-transitory computer-readable medium of claim 15, wherein the method further comprises: 100

B. Ground 2: Kido and Yee 100

1. Motivation to combine Kido and Yee.....100

2. Claim 2: The system of claim 1, further comprising a wheel sensor that is coupled to the hardware processor and that enables the hardware processor to determine that the roulette wheel has been spun. 102

3. Claim 9: The method of claim 8, further comprising using a wheel sensor that is coupled to the hardware processor to determine that the roulette wheel has been spun. 103

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

TABLE OF CONTENTS
(Continued)

Page

4. Claim 16: The non-transitory computer-readable medium of claim 15, wherein the method further comprises using a wheel sensor that is coupled to the hardware processor to determine that the roulette wheel has been spun.....103

C. Ground 3: Baron.....103

1. Claim 1.....103

2. Claim 2: The system of claim 1, further comprising a wheel sensor that is coupled to the hardware processor and that enables the hardware processor to determine that the roulette wheel has been spun. 126

3. Claim 3: The system of claim 1, wherein the hardware processor is further configured to close bets when the roulette wheel and the ball are determined to have been spun.....129

4. Claim 4: The system of claim 1, further comprising a display adjacent to the roulette wheel that indicates the first selected position. 131

5. Claim 5: The system of claim 4, wherein the hardware processor is further configured to cause a lightning visual effect to be presented when in connection with indicating the first selected position. 134

6. Claim 7: The system of claim 1, wherein the hardware processor is further configured to: randomly select a second selected position on the roulette wheel; and determine a payout for the second selected position that is different than the payout for the first position. 137

7. Claim 8.....138

8. Claim 9: The method of claim 8, further comprising using a wheel sensor that is coupled to the hardware

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

TABLE OF CONTENTS
(Continued)

Page

processor to determine that the roulette wheel has been spun. 140

9. Claim 10: The method of claim 8, further comprising closing bets when the roulette wheel and the ball are determined to have been spun. 140

10. Claim 11: The method of claim 8, further comprising indicating the first selected position on a display adjacent to the roulette wheel. 140

11. Claim 12: The method of claim 11, further comprising causing a lightning visual effect to be presented when in connection with indicating the first selected position. 140

12. Claim 14: The method of claim 8, further comprising: randomly selecting a second selected position on the roulette wheel; and determining a payout for the second selected position that is different than the payout for the first position. 140

13. Claim 15 141

14. Claim 16: The non-transitory computer-readable medium of claim 15, wherein the method further comprises using a wheel sensor that is coupled to the hardware processor to determine that the roulette wheel has been spun. 143

15. Claim 17: The non-transitory computer-readable medium of claim 15, wherein the method further comprises indicating the first selected position on a display adjacent to the roulette wheel. 143

16. Claim 18: The non-transitory computer-readable medium of claim 17, wherein the method further comprises comprising causing a lightning visual effect to be presented when in connection with indicating the first selected position. 143

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

TABLE OF CONTENTS
(Continued)

Page

17. Claim 20: The non-transitory computer-readable medium of claim 15, wherein the method further comprises: randomly selecting a second selected position on the roulette wheel; and determining a payout for the second selected position that is different than the payout for the first position. 144

XIII. ANALYSIS OF ’014 PATENT....144

A. Ground 1: Kido....144

1. Claim 1....144

2. Claim 2: The system of claim 1, further comprising a display adjacent to the roulette wheel that indicates the first selected position. 173

3. Claim 3: The system of claim 2, wherein the at least one hardware processor is further configured to cause a lightning visual effect to be presented in connection with indicating the first selected position. 174

4. Claim 5: The system of claim 1, wherein the at least one hardware processor is further configured to: 179

5. Claim 6: The system of claim 1, wherein the at least one hardware processor is further configured to cause the ball and the roulette wheel to automatically spin. 181

6. Claim 7: The system of claim 1, wherein the first graphical user interface includes a roulette board and wherein the at least one hardware processor is further configured to highlight the first selected position in response to the first selected positionbeing randomly selected. 182

7. Claim 9....183

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

TABLE OF CONTENTS
(Continued)

Page

8. Claim 10: The method of claim 9, further comprising indicating the first selected position on a display adjacent to the roulette wheel. 185

9. Claim 11: The method of claim 10, further comprising causing a lightning visual effect to be presented in connection with indicating the first selected position.....185

10. Claim 13: The method of claim 9, further comprising: 185

11. Claim 14: The method of claim 9, further comprising causing the ball and the roulette wheel to automatically spin. 186

12. Claim 15: The method of claim 9, wherein the first graphical user interface includes a roulette board and further comprising highlighting the first selected position in response to the first selected position being randomly selected. 186

13. Claim 17 186

14. Claim 18: The non-transitory computer-readable medium of claim 17, wherein the method further comprises indicating the first selected position on a display adjacent to the roulette wheel. 188

15. Claim 19: The non-transitory computer-readable medium of claim 18, wherein the method further comprises comprising causing a lightning visual effect to be presented in connection with indicating the first selected position. 189

16. Claim 21: The non-transitory computer-readable medium of claim 17, wherein the method further comprises: 189

17. Claim 22: The non-transitory computer-readable medium of claim 17, wherein the method further

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

TABLE OF CONTENTS
(Continued)

Page

comprises causing the ball and the roulette wheel to automatically spin. 189

18. Claim 23: The non-transitory computer-readable medium of claim 17, wherein the first graphical user interface includes a roulette board and wherein the method further comprises highlighting the first selected position in response to the first selected position being randomly selected. 189

B. Ground 2: Kido and Yee 190

1. Motivation to Combine Kido and Yee.....190

2. Claim 8: The system of claim 1, wherein the at least one hardware processor is further configured to indicate "500×" at the first selected position on a roulette board in the first graphical user interface. 191

3. Claim 16: The method of claim 9, further comprising indicating "500×" at the first selected position on a roulette board in the first graphical user interface. 198

4. Claim 24: The non-transitory computer-readable medium of claim 17, wherein the method further comprises indicating "500×" at the first selected position on a roulette board in the first graphical user interface.....198

C. Ground 3: Baron.....199

1. Claim 1.....199

2. Claim 2: The system of claim 1, further comprising a display adjacent to the roulette wheel that indicates the first selected position. 223

3. Claim 3: The system of claim 2, wherein the at least one hardware processor is further configured to cause

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

TABLE OF CONTENTS
(Continued)

Page

a lightning visual effect to be presented in connection with indicating the first selected position. 227

4. Claim 5: The system of claim 1, wherein the at least one hardware processor is further configured to: 230

5. Claim 6: The system of claim 1, wherein the at least one hardware processor is further configured to cause the ball and the roulette wheel to automatically spin. 231

6. Claim 7: The system of claim 1, wherein the first graphical user interface includes a roulette board and wherein the at least one hardware processor is further configured to highlight the first selected position in response to the first selected positionbeing randomly selected. 232

7. Claim 9 235

8. Claim 10: The method of claim 9, further comprising indicating the first selected position on a display adjacent to the roulette wheel. 238

9. Claim 11: The method of claim 10, further comprising causing a lightning visual effect to be presented in connection with indicating the first selected position. 238

10. Claim 13: The method of claim 9, further comprising: 238

11. Claim 14: The method of claim 9, further comprising causing the ball and the roulette wheel to automatically spin. 238

12. Claim 15: The method of claim 9, wherein the first graphical user interface includes a roulette board and further comprising highlighting the first selected position in response to the first selected position being randomly selected. 238

13. Claim 17 239

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

TABLE OF CONTENTS
(Continued)

Page

14. Claim 18: The non-transitory computer-readable medium of claim 17, wherein the method further comprises indicating the first selected position on a display adjacent to the roulette wheel. 242

15. Claim 19: The non-transitory computer-readable medium of claim 18, wherein the method further comprises comprising causing a lightning visual effect to be presented in connection with indicating the first selected position. 242

16. Claim 21: The non-transitory computer-readable medium of claim 17, wherein the method further comprises: 242

17. Claim 22: The non-transitory computer-readable medium of claim 17, wherein the method further comprises causing the ball and the roulette wheel to automatically spin. 242

18. Claim 23: The non-transitory computer-readable medium of claim 17, wherein the first graphical user interface includes a roulette board and wherein the method further comprises highlighting the first selected position in response to the first selected poition being randomly selected. 243

D. Ground 4: Baron and Yee 243

1. Motivation to Combine Baron and Yee 243

2. Claim 8: The system of claim 1, wherein the at least one hardware processor is further configured to indicate "500×" at the first selected position on a roulette board in the first graphical user interface. 245

3. Claim 16: The method of claim 9, further comprising indicating "500×" at the first selected position on a roulette board in the first graphical user interface. 252

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

TABLE OF CONTENTS
(Continued)

Page

4. Claim 24: The non-transitory computer-readable medium of claim 17, wherein the method further comprises indicating "500×" at the first selected position on a roulette board in the first graphical user interface. 252

XIV. ANALYSIS OF '371 PATENT 253

A. Ground 1: Kido 253

1. Claim 1 253

2. Claim 2: The system of claim 1, further comprising a display that identifies the first selected position. 266

3. Claim 4: The system of claim 1, wherein the at least one hardware processor is further collectively configured to: 267

4. Claim 5: The system of claim 1, wherein the at least one hardware processor is further collectively configured to cause the ball and the roulette wheel to automatically spin. 270

5. Claim 6: The system of claim 1, 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. 270

6. Claim 10: The system of claim 1, wherein the first bet is a bet on a single position on the roulette wheel. 271

7. Claim 11 271

8. Claim 12: The method of claim 11, further comprising causing the first selected position to be identified on a display. 275

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

TABLE OF CONTENTS
(Continued)

Page

9. Claim 14: The method of claim 11, further comprising: 276

10. Claim 15: The method of claim 11, further comprising causing the ball and the roulette wheel to automatically spin. 276

11. Claim 16: The method of claim 11, wherein the first selected position is highlighted in the roulette board. 276

12. Claim 19: The method of claim 11, wherein the first bet is a bet on a single position on the roulette wheel. 276

13. Claim 21 277

14. Claim 22: The non-transitory computer-readable medium of claim 21, wherein the method further comprises causing the first selected position to be identified on a display. 278

15. Claim 24: The non-transitory computer-readable medium of claim 21, wherein the method further comprises: 278

16. Claim 25: The non-transitory computer-readable medium of claim 21, wherein the method further comprises causing the ball and the roulette wheel to automatically spin. 279

17. Claim 26: The non-transitory computer-readable medium of claim 21, wherein the method further comprises causing 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. 279

18. Claim 30: The non-transitory computer readable medium of claim 21, wherein the first bet is a bet on a single position on the roulette wheel. 279

B. Ground 2: Kido and Yee 279

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

TABLE OF CONTENTS
(Continued)

Page

1. Motivation to combine Kido and Yee.....279

2. Claim 7: The system of claim 6, wherein the at least one hardware processor is further configured to indicate "500×" at the first selected position on the roulette board in the first graphical user interface. 281

3. Claim 8: The system of claim 1, wherein the first increased payout is 49:1.....288

4. Claim 9: The system of claim 8, wherein the first non-selected payout is 29:1. 290

5. Claim 17: The method of claim 16, further comprising indicating "500×" at the first selected position on the roulette board in the first graphical user interface. 293

6. Claim 18: The method of claim 11, wherein the first increased payout is 49:1.....294

7. Claim 20: The method of claim 18, wherein the first non-selected payout is 29:1.....294

8. Claim 27: The non-transitory computer-readable medium of claim 26, wherein the method further comprises indicating "500×" at the first selected position on the roulette board in the first graphical user interface.....294

9. Claim 28: The non-transitory computer-readable medium of claim 21, wherein the first increased payout is 49:1. 294

10. Claim 29: The non-transitory computer-readable medium of claim 28, wherein the first non-selected payout is 29:1. 294

C. Ground 3: Baron.....295

1. Claim 1.....295

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

TABLE OF CONTENTS
(Continued)

Page

2. Claim 2: The system of claim 1, further comprising a display that identifies the first selected position. 306

3. Claim 4: The system of claim 1, wherein the at least one hardware processor is further collectively configured to: 309

4. Claim 5: The system of claim 1, wherein the at least one hardware processor is further collectively configured to cause the ball and the roulette wheel to automatically spin. 313

5. Claim 6: The system of claim 1, 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. 314

6. Claim 10: The system of claim 1, wherein the first bet is a bet on a single position on the roulette wheel. 316

7. Claim 11 317

8. Claim 12: The method of claim 11, further comprising causing the first selected position to be identified on a display. 318

9. Claim 14: The method of claim 11, further comprising: 318

10. Claim 15: The method of claim 11, further comprising causing the ball and the roulette wheel to automatically spin. 319

11. Claim 16: The method of claim 11, wherein the first selected position is highlighted in the roulette board. 319

12. Claim 19: The method of claim 11, wherein the first bet is a bet on a single position on the roulette wheel. 319

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

TABLE OF CONTENTS
(Continued)

Page

13. Claim 21 319

14. Claim 22: The non-transitory computer-readable medium of claim 21, wherein the method further comprises causing the first selected position to be identified on a display. 321

15. Claim 24: The non-transitory computer-readable medium of claim 21, wherein the method further comprises: 321

16. Claim 25: The non-transitory computer-readable medium of claim 21, wherein the method further comprises causing the ball and the roulette wheel to automatically spin. 321

17. Claim 26: The non-transitory computer-readable medium of claim 21, wherein the method further comprises causing 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. 321

18. Claim 30: The non-transitory computer readable medium of claim 21, wherein the first bet is a bet on a single position on the roulette wheel. 322

D. Ground 4: Baron and Yee 322

1. Motivation to Combine Baron and Yee 322

2. Claim 7: The system of claim 6, wherein the at least one hardware processor is further configured to indicate "500×" at the first selected position on the roulette board in the first graphical user interface. 324

3. Claim 8: The system of claim 1, wherein the first increased payout is 49:1. 331

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

TABLE OF CONTENTS
(Continued)

Page

4. Claim 9: The system of claim 8, wherein the first non-selected payout is 29:1. 333

5. Claim 17: The method of claim 16, further comprising indicating "500×" at the first selected position on the roulette board in the first graphical user interface. 336

6. Claim 18: The method of claim 11, wherein the first increased payout is 49:1. 337

7. Claim 20: The method of claim 18, wherein the first non-selected payout is 29:1. 337

8. Claim 27: The non-transitory computer-readable medium of claim 26, wherein the method further comprises indicating "500×" at the first selected position on the roulette board in the first graphical user interface. 337

9. Claim 28: The non-transitory computer-readable medium of claim 21, wherein the first increased payout is 49:1. 337

10. Claim 29: The non-transitory computer-readable medium of claim 28, wherein the first non-selected payout is 29:1. 337

XV. CONCLUSION 338

XVI. RESERVATION OF RIGHTS 338

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

I. INTRODUCTION

1. I have been retained by counsel for Petitioner Light & Wonder, Inc. ("Petitioner") to investigate and opine on certain issues relating to its Petitions on United States Patent No. 10,629,024 ("the '024 patent"), 11,011,014 ("the '014 patent") and 11,756,371 ("the '371 patent") (collectively, "the challenged patents"). I understand these Petitions request that the Patent Trial and Appeal Board ("PTAB" or "Board") review and cancel claims 1-5, 7-12, 14-18 and 20 of the '024 patent, claims 1-3, 5-11, 13-19 and 21-24 of the '014 patent, and claims 1-2, 4-12, 14-22 and 24-30 of the '371 patent (collectively the "challenged claims").

2. Due to the similarity in these the claims of these patents, and because they are continuations and share identical specifications, I have provided a combined and identical declaration for each proceeding.

3. The opinions set forth in this declaration are based on my personal knowledge, my professional judgment, and my analysis of the materials and information referenced in this declaration, its exhibits, and Appendix A to this declaration.

4. I am being compensated for my consulting services including time spent testifying at any hearing that may be held. In the past four years, I have testified by deposition 15 times and 6 times at trial or hearing. My compensation does not depend on the outcome of these *inter partes* reviews or the co-pending

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

district court litigation, and I have no other financial interest in this *inter partes* review. I am over 21 years of age and am legally competent to testify. If called as a witness, I could and would testify to the opinions set forth below. I reserve the right to create additional summaries, tutorials, demonstratives, charts, drawings, tables, or animations that may be appropriate to supplement or demonstrate my opinions if I am asked to testify at hearing.

5. I understand that the '024, '014 and '371 patents have been assigned to Evolution Malta Limited.

6. This declaration is based on the information currently available to me. To the extent that additional information becomes available, I reserve the right to continue my investigation and study, which may include a review of documents and information that may be produced, as well as testimony from depositions that have not yet been taken.

II. QUALIFICATIONS

7. In this section, I summarize my educational background, work experience, and other relevant qualifications. I have over twenty-five years of professional experience in developing regulated casino games, gaming mathematics, and professional software design. A true and accurate copy of my curriculum vitae is attached as Appendix B to this report.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

8. I am a professional game designer and casino gaming mathematician intimately familiar with the issues and technology relating to physical and electronic gaming systems, including land-based or Internet casino gaming systems (including, *e.g.*, Class II and Class III games under IGRA, lottery games and video lottery terminals, central determinant gaming systems, sweepstakes games, historical horse race games); physical casino table games; mobile, console or PC-based non-wagering game systems; and other electronic or video arcade games. I have personally designed, implemented, tested, and analyzed many games, including dozens of single-player and multi-player games, both wagering and non-wagering. I have also submitted and received regulatory approval for casino wagering games in several regulated gaming jurisdictions, including Nevada.

9. I am the President of Olympian Gaming, LLC in Lake Oswego, Oregon, a position that I have held since 2001. In that capacity, I have consulted in the gaming industry regarding, among other things, game design and development, slot machine and table game mathematics, game software and hardware development, and gaming patent infringement and validity. I have served as a subject matter expert in many matters related to gaming machines or gaming technology, including over forty cases involving allegations of infringement or misappropriation of gaming-related intellectual property. Many of these cases have

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

involved distributed software systems running on networked computers, and in several of these cases I have performed source code reviews.

10. In 1996, I earned my Bachelor of Arts degree in Computer Science, *magna cum laude*, from Harvard College, Harvard University, Cambridge, Massachusetts. During college I became familiar with a wider variety of game genres, including RTS or "real time strategy" computer games (specifically Warcraft: Orcs & Humans), CCG or "collectible card games" (specifically Magic: The Gathering), and expanded my knowledge of wagering card games to blackjack, baccarat, and casino poker. After college, I became interested in the mathematics of casino games. I taught myself probability theory—the origins of which are based in wagering games—and began a self-directed study of gaming mathematics, including "advantage play" techniques such as blackjack card counting.

11. My professional experience in the casino gaming industry started in 1998, when I joined Silicon Gaming in Palo Alto, California as a game model engineer before it was acquired by International Game Technology ("IGT"). Silicon Gaming designed and developed interactive video slot machines. As a game model engineer (mathematician), I worked on the designs of video slot games, video keno games, and video card games including video poker and blackjack; helped produce dozens of innovative new games for the Odyssey™

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

platform; and engaged regulatory agencies to achieve regulatory approval for the mathematics used in the games. In addition, I designed and developed game flow and storyboards for new games and game features (behaviors) and developed and shipped over 50 mathematical game models. I also served as a liaison to state regulatory agencies and corrected prior errors in gaming lab submissions, which led to savings of over $50,000 in regulatory fees. I was also responsible for managing the statistical verification and mathematical gameplay testing for Silicon Gaming's products.

12. In 2001, I started an independent casino game design and analysis consultancy, Olympian Gaming LLC. Based on my experience designing, developing, and placing dozens of games in Las Vegas, Reno, and Atlantic City casinos, I advise Internet casino software vendors, new game inventors, and casino game manufacturers in the fields of wagering gameplay design, mathematical analysis, and statistical verification. Most of my earliest clients were online gaming software providers, including WagerWorks, a company that spun out of Silicon Gaming to develop a real-money remote gambling system called WagerWare. WagerWorks was acquired by IGT in 2005. In 2011, I was engaged by DoubleDown Interactive, a social gaming website offering free-to-play slot machine games on its Facebook app, DoubleDown Casino. I designed the

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

mathematics, payouts, and game features for all of DoubleDown's virtual slot machine games. In 2012, IGT bought DoubleDown for $500,000,000.

13. I have also served as a subject matter expert in many matters related to gaming machines or gaming technology, including over 20 cases involving gaming related intellectual property. Many of these cases have involved distributed software systems running on networked computers, and in several of these cases I have performed source code reviews. Many of these cases have involved technology or patents related to networked lottery or wagering systems. Furthermore, in 2024 I testified in a patent infringement trial involving a roulette-like device used to play roulette games in California where state law prohibits using a traditional roulette wheel and ball to determine gaming outcomes.

14. Also through Olympian Gaming, I have invented and applied for patents on over two dozen gaming methods and systems and, together with my patent attorney and frequent co-inventor, control a patent portfolio of approximately thirty issued and/or pending patents across several categories of the gaming industry. These innovations include novel table games, electronic wagering games such as slot machine and video poker games, and networked casino management or promotional systems. I have been heavily involved in patent prosecution for many of these patents and have executed several intellectual property transactions including licenses and sales. For example, Olympian

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

Gaming has licensed its patented blackjack side bet, Bad Beat Blackjack, for operation on physical blackjack tables, in electronic table games, and in online casinos. Bad Beat Blackjack is described in U.S. Patent Nos. 7,651,096 and 8,074,992.

15. Olympian Gaming has received regulatory approval for several of its gaming products, including casino table game products, in multiple jurisdictions including Nevada, Mississippi, and Washington State. I personally performed the game design and mathematical analysis for the games that were approved by regulators in those jurisdictions. Olympian Gaming also formerly held a distributor license from the Washington State Gambling Commission.

16. Based on my experience, training and qualifications, I consider myself to be an expert in the gaming field, with particular expertise in the areas of regulated networked gaming systems and game design and mathematics.

17. Additional details of my background are set forth in my CV, attached as Appendix B to this declaration.

III. MATERIALS REVIEWED

18. In forming the opinions I set forth in this report, I relied upon the materials linked or cited in this document as well as the materials set forth in Appendix A, which I incorporate herein by reference. Unless otherwise stated, I

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

have personally reviewed all of the materials linked or cited in this document and therefore have personal knowledge of these materials.

19. In forming my opinions, I have drawn on my many years of education and experience researching, publishing, and working in the fields of gaming, electronic media, and computer science.

20. For any future testimony I may give in this matter, I may use some or all of the documents and information cited to, referred to, or identified in this report, as well as any additional materials that are entered into evidence in this matter.

21. My work on this matter is ongoing. As I examine additional materials and perform further analyses on current information, I reserve the right to revise and supplement my opinions and this report.

IV. LEVEL OF ORDINARY SKILL IN THE ART

22. I understand that patent claims are interpreted from the perspective of a hypothetical person of ordinary skill in the art ("POSITA") at the time of the claimed invention. I understand that the factors considered in determining the ordinary level of skill in a field of art include the level of education and experience of persons working the field, the types of problems encountered in the field, and the sophistication of the technology at the time of the claimed invention. I understand that a POSITA is a hypothetical individual having the qualities

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

reflected by the factors above. I understand that a POSITA would also have knowledge of the teachings of the prior art.

23. In reaching my opinions, I have been instructed to assume that the relevant date of the challenged patents is February 5, 2018 (the "Priority Date"), which is the filing date of provisional application 62/626,590 (the "'590 provisional") to which all three of the challenged patents claim priority. However, I have not made any opinions herein as to whether the challenged patents are entitled to that priority date. If the challenged patents are found to be entitled to a later priority date, it would not impact my analysis herein. Further, to the extent Patent Owner or an expert for Patent Owner asserts that the challenged patents are entitled to a priority date earlier than February 5, 2018, I reserve the right to respond to such assertions and/or offer my opinions under the asserted date.

24. I am familiar with the level of skill a POSITA would have had in February 2018 with respect to the subject matter of the challenged patents. It is my opinion that a POSITA at the time of the alleged invention claimed in the challenged patents would have had 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. Additional graduate education could substitute for

professional experience, and significant work experience could substitute for formal education.

25. I am at least a person of ordinary skill in the art and was so on the date which the ’024, ’014 and ’371 patents were filed, as well as the earliest possible February 2018 priority date. As shown by my qualifications and my curriculum vitae attached as Appendix B, I am aware of the knowledge and skill possessed by a person of ordinary skill in the art at the time of the filing date of the ’024, ’014 and ’371 patents. In performing my analysis, I have applied the standard set forth above.

26. Unless otherwise stated, my opinions set forth herein are through the viewpoint of a POSITA at the time of the invention.

V. SUMMARY OF OPINIONS

27. During my review, I have evaluated the claims of the challenged patents and it is my opinion that each claim is invalid. Below, I explain my analysis and point to specific evidence supporting my conclusions. I reserve the right to supplement these findings should new information be made available.

A. ’024 Patent

28. I have reviewed and analyzed the ’024 patent.

29. Based on my review and analysis, it is my opinion that the challenged claims of the ’024 patent are invalid based on the following grounds:

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

Ground	Claims	Basis
Ground 1	1, 3-5, 7, 8, 10-12, 14, 15, 17, 18, 20	Anticipation and obviousness based on U.S. Patent Pub. No. 2008/0248853 to Kido ("Kido")
Ground 2	2, 9, 16	Obviousness based on Kido and U.S. Patent No. 9,600,974 to Yee ("Yee")
Ground 3	1-5, 7-12, 14-18, 20	Anticipation and obviousness based on U.S. Patent Pub. No. 2016/0155296 to Baron ("Baron")

B. '014 Patent

30. I have reviewed and analyzed the '014 patent.

31. Based on my review and analysis, it is my opinion that the challenged claims of the '014 patent are invalid based on the following grounds:

Ground	Claims	Basis
Ground 1	1-3, 5-7, 9-11, 13-15, 17-19, 21-23	Anticipation and obviousness based on U.S. Patent Pub. No. 2008/0248853 to Kido ("Kido")
Ground 2	8, 16, 24	Obviousness based on Kido and U.S. Patent No. 9,600,974 to Yee ("Yee")
Ground 3	1-3, 5-7, 9-11, 13-15, 17-19, 21-23	Anticipation and obviousness based on U.S. Patent Pub. No. 2016/0155296 to Baron ("Baron")
Ground 4	8, 16, 24	Obviousness based on Baron and Yee

C. '371 Patent

32. I have reviewed and analyzed the '371 patent.

33. Based on my review and analysis, it is my opinion that the challenged claims of the ’371 patent are invalid based on the following grounds:

Ground	Claims	Basis
Ground 1	1-2, 4-6, 10-12, 14-16, 19, 21-22, 24-26, 30	Anticipation and obviousness based on U.S. Patent Pub. No. 2008/0248853 to Kido (“Kido”)
Ground 2	7-9, 17-18, 20, 27-29	Obviousness based on Kido and 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	Anticipation and obviousness based on U.S. Patent Pub. No. 2016/0155296 to Baron (“Baron”)
Ground 4	7-9, 17-18, 20, 27-29	Obviousness based on Baron and Yee

VI. LEGAL STANDARDS

34. I am not an attorney and offer no legal opinions. I have been informed about certain aspects of the law for purposes of my analyses and opinions.

35. I have been informed that there are two ways in which prior art may render a patent claim unpatentable. First, the prior art can be shown to “anticipate” the claim. Second, the prior art can be shown to have made the claim “obvious” to a POSITA.

36. I have been informed that a patented claim is invalid as anticipated if the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

the claimed invention, or the claimed invention was described in an issued patent or a published patent application that was effectively filed before the effective filing date of the claimed invention.

37. I have been informed that a claim may be invalid as obvious if the subject matter described by the claim as a whole would have been obvious to a hypothetical person of ordinary skill in the art in view of a prior art reference or in view of a combination of references at the time the claimed invention was made. I have been informed that obviousness is determined from the perspective of a hypothetical POSITA and that the asserted claims of the patent should be read from the point of view of such a person at the time the claimed invention was made. I have been informed that a hypothetical POSITA is assumed to know and to have all relevant prior art in the field of endeavor covered by the patent in suit.

38. I have been informed that there are two criteria for determining whether prior art is analogous and thus can be considered prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the patentee's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the patentee is involved. I have also been informed that the field of endeavor of a patent is not limited to the specific point of novelty, the narrowest possible conception of the field, or the particular focus within a given field. I have also been

informed that a reference is reasonably pertinent if, even though it may be in a different field from that of the patentee's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to a patentee's attention in considering his problem.

39. I have also been informed that an analysis of whether a claimed invention would have been obvious should be considered in light of the scope and content of the prior art, the differences (if any) between the prior art and the claimed invention, and the level of ordinary skill in the pertinent art involved. I have been informed as well that a prior art reference should be viewed as a whole.

40. I have also been informed that in considering whether an invention for a claimed combination would have been obvious, I may assess whether there are apparent reasons to combine known elements in the prior art in the manner claimed in view of interrelated teachings of multiple prior art references, the effects of demands known to the design community or present in the market place, and/or the background knowledge possessed by a person having ordinary skill in the art. I have been informed that other principles may be relied on in evaluating whether a claimed invention would have been obvious, and that these principles include the following:

41. A combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results;

42. When a device or technology is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or in a different one, so that if a person of ordinary skill can implement a predictable variation, the variation is likely obvious;

43. If a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill;

44. An explicit or implicit teaching, suggestion, or motivation to combine two prior art references to form the claimed combination may demonstrate obviousness, but proof of obviousness does not depend on or require showing a teaching, suggestion, or motivation to combine;

45. Market demand, rather than scientific literature, can drive design trends and may show obviousness;

46. In determining whether the subject matter of a patent claim would have been obvious, neither the particular motivation nor the avowed purpose of the named inventor controls;

47. One of the ways in which a patent's subject can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims;

48. Any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed;

49. "Common sense" teaches that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle;

50. A person of ordinary skill in the art is also a person of ordinary creativity, and is not an automaton;

51. A patent claim can be proved obvious by showing that the claimed combination of elements was "obvious to try," particularly when there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions such that a person of ordinary skill in the art would have had good reason to pursue the known options within his or her technical grasp.

52. One should be cautious of using hindsight in evaluating whether a claimed invention would have been obvious.

53. I have further been informed that, in making a determination as to whether or not the claimed invention would have been obvious to a person of ordinary skill, the Board may consider certain objective factors if they are present, such as: commercial success of products practicing the claimed invention; long-felt

but unsolved need; teaching away; unexpected results; copying; and praise by others in the field. These factors are generally referred to as "secondary considerations" or "objective indicia" of nonobviousness. I have been informed, however, that for such objective evidence to be relevant to the obviousness of a claim, there must be a causal relationship (called a "nexus") between the claim and the evidence and that this nexus must be based on what is claimed and novel in the claim rather than something in the prior art. I have also been informed that even when they are present, secondary considerations may be unable to overcome primary evidence of obviousness (e.g., motivation to combine with predictable results) that is sufficiently strong.

54. I have been asked to consider the validity of the challenged claims. I have been informed that for *inter partes* reviews, invalidity must be shown under a preponderance of the evidence standard. I have been informed that to establish something by a preponderance of the evidence one needs to prove it is more likely true than not true.

VII. DESCRIPTION OF THE CHALLENGED PATENTS

A. Provisional Application

55. Provisional application 62/626,590, entitled "Systems, Methods, and Media for Implementing Internet-Based Wagering" was filed on 2/5/2018. Todd Haushalter is the sole named inventor.

56. The ’590 provisional describes rules for adjusting payouts for randomly-selected numbers in roulette games. *See* ’590 provisional at [0028], [0031]. Specifically, after betting is closed, one or more roulette numbers are randomly selected “in any suitable manner” (including using “a pseudo-random number generator”) to have increased payouts and other non-selected numbers can have decreased payouts to compensate. *Id.* at [0027]-[0031]. Examples of increased payouts are 49:1 or 499:1; an example of a decreased payout is 29:1. *Id.*

57. The roulette wheel may be physical or virtual. *Id.* at [0052]. Any suitable computer components may be used to implement the invention. *Id.* at [0041]-[0049], [0051]. The process of Fig. 2 is not limited to the order shown, and steps may be performed in any order or omitted. *Id.* at [0050].

B. ’024 Patent

58. U.S. Pat. Appl. No. 16/268,218, entitled “Systems, Methods, and Media for Implementing Internet-Based Wagering” was filed on 2/5/2019. Todd Haushalter is the sole named inventor. The ’218 application claims priority to the ’590 provisional. ’218 application at [0001]. The specification of the ’218 application appears to be nearly identical to the ’590 provisional, excepting the addition of paragraphs [0001] through [0004] and a minor change to paragraph [0057].

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

59. The originally-filed claim 1 includes the following seven method steps:

a. Receive first bet information for a first bet from a first player device of a first player, the first bet information corresponding to at least a first position on the roulette wheel;

b. Receive second bet information for a second bet from a second player device of a second player, the second bet information corresponding to at least a second position on the roulette wheel that is different from the first position;

c. Determine that the roulette wheel and the ball have been spun;

d. Randomly select a first selected position on the roulette wheel, wherein the first selected position is the same as the first position;

e. Determine a first payout for first position and a second payout for the second position, wherein the first payout is higher than the second payout;

f. Determine that the ball has fallen in the first position; and

g. Indicating that the first player is to be paid at the first payout.

60. Independent claims 8 and 15 include the equivalent seven steps.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

61. On 6/28/2019 the Examiner sent an office action rejecting the claims as anticipated by U.S. Pat. No. 9,600,974 to Yee. Yee describes a roulette wager "on the occurrence of two consecutive identical game outcomes" where "the amount won is determined by randomly selecting a multiplier and applying the multiplier to the amount of the wager." Yee at 3:39-43. Put another way, "the wager may be resolved by determining whether [a] randomly generated number is identical to a randomly generated number from an immediately preceding round." *Id.* at 2:2-5. Examples of payout multipliers include "10 times, 25 times, 50 times, 100 times, 250 times, 500 times, and 1,000 times." *Id.* at 2:18-20.

62. Yee discloses that a randomly generated number may be generated "by physically introducing a ball onto a physical spinning roulette wheel or by activating an electronic random number generator." *Id.* at 4:6-8; *see also* 9:40-10:14.

63. The Examiner noted that Yee disclosed different types of roulette wagers (9:31-39) which are known to have different payouts. In my opinion, a POSITA would have agreed: when a first player makes a straight up wager (on a single number) and a second player makes a split wager (on two numbers), the first payout will always be higher than the second payout, namely 35:1 ("35-to-1")[1] vs.

[1] A payout stated as 35-to-1 reflects winnings of 35 times the wager, plus a return of the original wager. The equivalent payout may be stated as "36-for-1," reflecting a total payout of 36 units including the original wager.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

17:1. In other words, the rules of roulette themselves provide for the claimed relationship between the payouts where one payout is higher than another.

64. On 10/28/2019 the applicant amended the claims, adding the phrase "on a spin of the roulette wheel" or "for the spin of the roulette wheel" to each of the seven steps. The amendment also limited the fourth step, "randomly select a first selected position on the roulette wheel," to include "for the spin of the roulette wheel prior to the ball falling into a position on the roulette wheel."

65. Applicant argued that "the 'position' being selected in this portion of claim 1 corresponds to the selection made in box 210 of Fig. 2 of the present application … While this portion of Yee (9:31-10:14) discusses randomly generating a number, it clearly explains that this number would be the number corresponding to a position on a roulette wheel into which a ball drops. That is, the ball dropping into the position is the random generation of a number. At no point does Yee show or suggest "randomly select[ing] a first position on [a] roulette wheel for [a] spin of the roulette wheel prior to the ball falling into a position on the roulette wheel" as recited in claim 1 as amended." '024 patent file history, 10/28/2019 remarks at 10.

66. However, the cited portion of Yee is not so limited. In fact, Yee discloses that a roulette number may be randomly selected, not only with a ball dropping into a position on a roulette wheel as argued, but via "electronically

activating a random number generator using a processor ... and automatically applying a formula to generate a random number and associated color from within the range." Yee at 10:8-14. In my opinion, the applicant did not accurately represent the teachings of Yee. In Yee, a random number from the immediately preceding round, including when that number is selected by computerized random number generator, is a "randomly select[ed] first position on a roulette wheel" and that number is selected "prior to the ball falling into a position on the roulette wheel" for the claimed spin of the roulette wheel. The prior spin result in Yee is used to determine the result of Yee's wager for the current spin, and is therefore a random selection "for the spin of the roulette wheel." Nothing in the claim language requires the random selection step to occur after the spin begins, only "prior to the ball falling into a position." Thus, in contrast to applicant's arguments, Yee does in fact show the claim element as amended.

67. The examiner allowed the claims on 12/16/2019. In the notice of allowability, the examiner noted that "the random selection is thus made by the processor rather than merely depending on the random location of the ball stopping." '024 patent file history, 12/16/2019 notice of allowability at 3. However, as above, Yee discloses a random selection of a roulette number made by a processor. The applicant did not correct the examiner's misunderstanding.

C. ’014 Patent

68. U.S. Pat. Appl. No. 16/852,049, entitled “Systems, Methods, and Media for Implementing Internet-Based Wagering” was filed on 4/17/2020. Todd Haushalter is the sole named inventor. The ’049 application claims priority to the ’218 patent application and the ’590 provisional. ’049 application at [0001].

69. The originally-filed claims appear to be copies of the originally-filed claims in the parent but, prior to initial examination, the claims were amended to add limitations related to graphical interfaces and that the first and second bet information corresponded to “only a single” position. As noted above, in the ’024 patent claims, the claimed bet information could include a prior-art straight up bet (covering a single number) for the first player and a prior-art split bet (covering two numbers) for the second player and therefore have the claimed relationship “wherein the first payout is higher than the second payout.”

70. The examiner allowed the claims on a first-action allowance on 1/22/2021. In the notice of allowability, the examiner copied his statement from the allowance of the ’024 patent. ’014 patent file history, 1/22/2021 notice of allowability at 3, *cf.* ’024 patent file history, 12/16/2019 notice of allowability at 3.

D. ’371 Patent

71. U.S. Pat. Appl. No. 17/246,557, entitled “Systems, Methods, and Media for Implementing Internet-Based Wagering” was filed on 4/30/2021. Todd

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

Haushalter is the sole named inventor. The ’557 application claims priority to the ’049 application, the ’218 patent application and the ’590 provisional. ’557 application at [0001].

72. Similar claim limitations exist to the parent applications, including “randomly or pseudo-randomly select a first selected position 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” and “wherein the first increased payout [for][2] 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.” ’371 patent file history, 3/23/2023 claims at 2.

73. On April 1, 2022, the Patent Office rejected all claims as being anticipated by U.S. Patent No. 9,600,974 to Yee. On July 1, 2022, Applicant argued in response 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. Nevertheless, the Patent Office continued to reject the claims over Yee in a subsequent Final Office Action dated November 23, 2022. On March 23,

[2] The errant word “for” was present in the 3/23/2023 claims but was corrected after allowance in an amendment dated 7/12/2023.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

2023, Applicant filed a Request for Continued Examination with amendments to the claims. Patent Owner argued that these amendments "clarify that claim 1 is directed to a single bet on a single spin." 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. On April 17, 2023, the Office then allowed all claims. In the notice of allowability, the examiner copied his statement from the allowance of the '014 patent. '371 patent file history, 4/17/2023 notice of allowability at 4, *cf.* '014 patent file history, 1/22/2021 notice of allowability at 3.

VIII. CLAIM CONSTRUCTION

74. It is my understanding that in determining whether a patent claim is anticipated or obvious in view of the prior art, the Patent Office must construe the claim by giving the claim its plain and ordinary meaning at the time of the alleged invention, consistent with the specification and prosecution history. For the purposes of this declaration, I have construed each claim term in accordance with its plain and ordinary meaning as of the purported February 2018 Priority Date of the challenged patents.

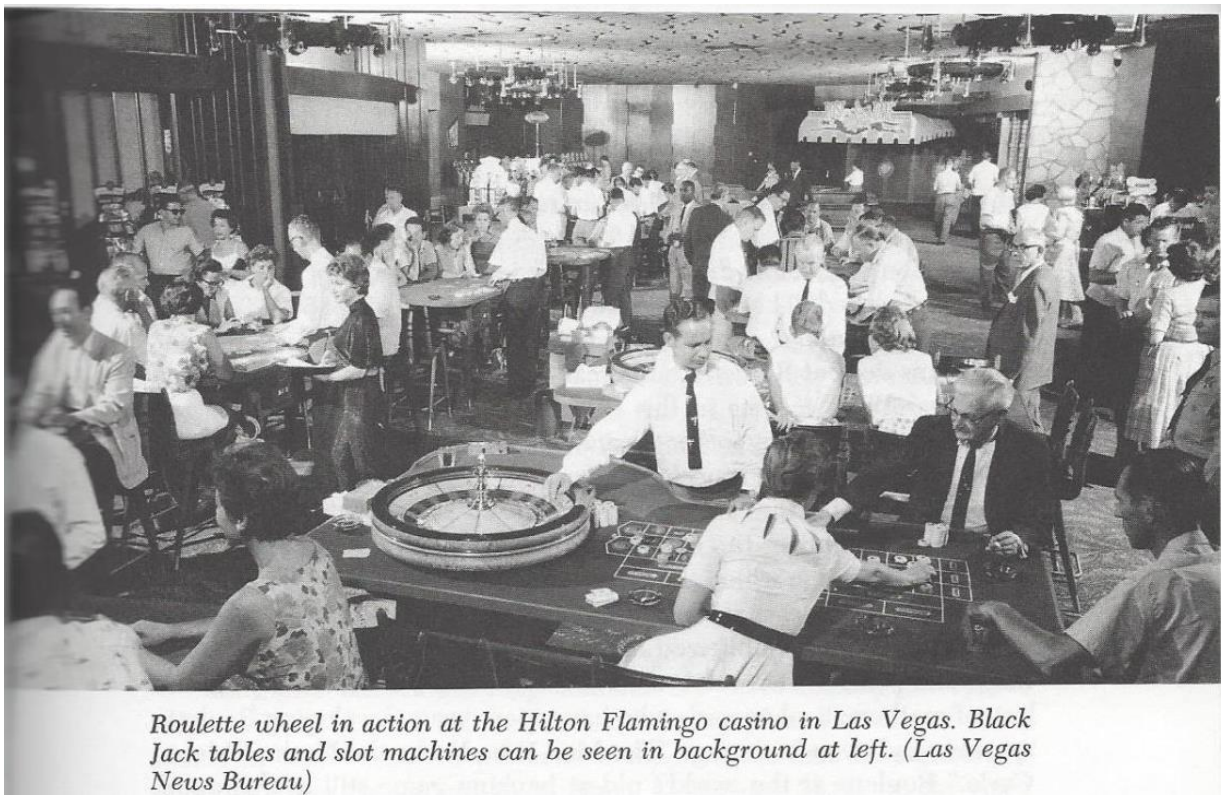
Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

IX. TECHNOLOGY BACKGROUND

75. This section provides a brief state of the art as of the priority date of the challenged patents. All of the information in this section was available to the public and would have been part of a POSITA's common general knowledge.

A. Roulette and Other Wheel Games

76. Roulette reportedly dates back to the mid-1600s, was prevalent in French casinos in the 1800s, and has been a mainstay in Nevada casinos for nearly a century.



Roulette wheel in action at the Hilton Flamingo casino in Las Vegas. Black Jack tables and slot machines can be seen in background at left. (Las Vegas News Bureau)

Roulette tables at the Hilton Flamingo, circa 1955. EX1032 at 4.[3]

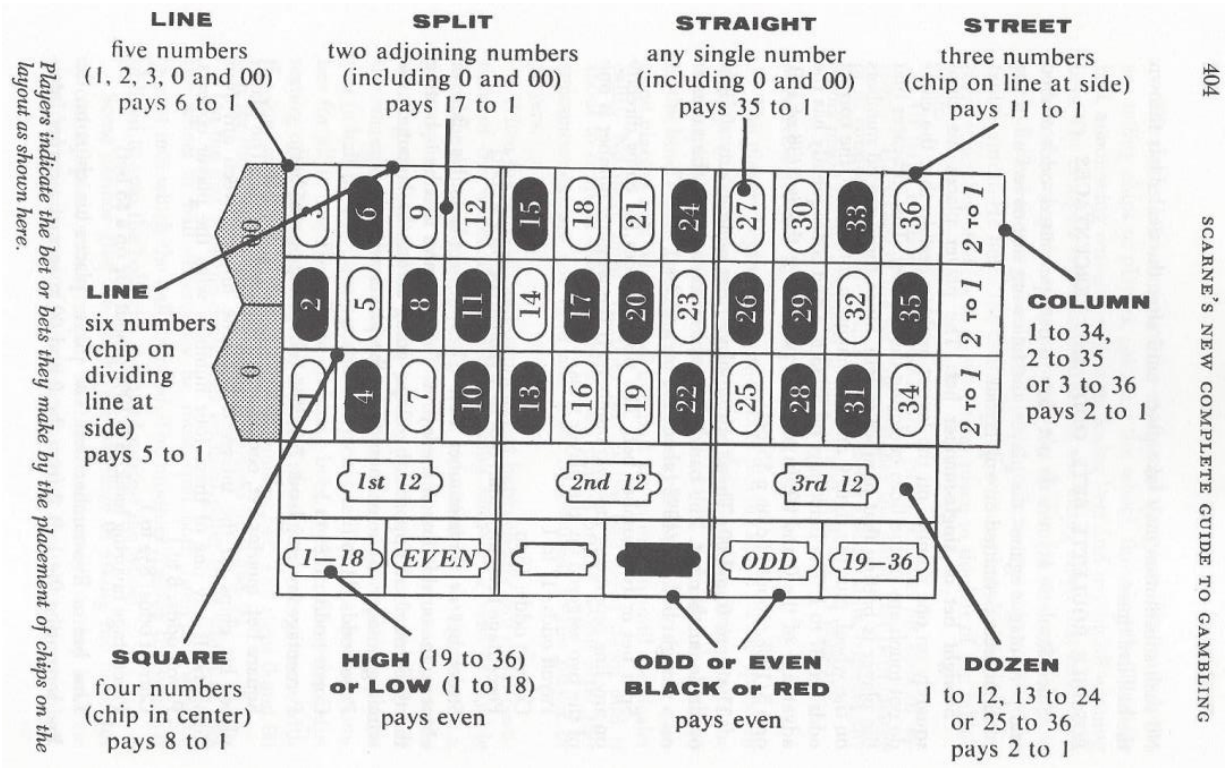
[3] See also https://www.gettyimages.com/detail/news-photo/interior-of-a-gambling-casino-with-casino-workers-and-news-photo/3233746

77. The rules and payouts for roulette were well-known by 2018 and had been published for decades. *See* EX1032 at 5; EX1033. Generally speaking, an American roulette wheel has 38 positions or pockets numbered 00, 0, and 1 through 36. Players use circular chips to make wagers on a layout in particular locations to indicate which numbered positions are wagered upon. The dealer (or "croupier") accepts wagers on the layout before the ball is released into the wheel, and for a short period of time afterwards, before calling "no more bets." The croupier generally spins the wheel in one direction and spins the ball inside the upper rim of the wheel in the other direction, where eventually it slows, falls off the upper rim and spirals down toward the pockets, and (usually after bouncing off one or more deflectors placed on the wheel to decrease predictability) ultimately comes to rest in one of the numbered pockets to indicate the winning number. Typically, experienced croupiers can tell when the ball will begin to slow and will call "no more bets" at that time, thus preventing any further wagers from being made when the ball is moving slowly enough so it may be possible to predict somewhat where the ball will land.[4] Wagers that include the winning number are

[4] It is in fact possible to predict the landing location, at least roughly, of a roulette ball after knowing the first few revolutions. The book "The Eudaemonic Pie" by Thomas Bass details the exploits of a group of physicists and computer scientists in the late 1970s to build a small computer, program it with the orbital mechanics calculations to predict a result sector of a roulette wheel, and hide it in a shoe. They were successful. It is worth noting that, for a typical American double-zero roulette wheel, it only takes knowledge of three positions where the ball will not land in order to achieve a player advantage and "beat the house" (e.g., by betting one unit on all of the 35 other possible positions, the player can win 35-to-1 on one of them and lose 34 for a net profit of 1 unit per spin).

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

paid at 36-for-N where N is the number of positions covered by the bet, other wagers are removed and kept by the house. For instance, a split bet covering two numbers including the winning number is paid 36-for-2 which reduces to 18-for-1, a.k.a. 17-to-1, but a split bet covering two numbers, neither of which is the winning number, is lost.[5]



EX1032 at 12.

[5] The exception to the 36-for-N rule is the five-number bet covering 0, 00, 1, 2, 3 that pays 7-for-1 since 36 does not divide evenly by five. By way of explanation, a payout phrased as "35 to 1" as shown herein means the player wins 35 units and retains their original unit wager, for a total return of 36 units. Payouts phrased as "36 for 1" (note "for" vs. "to") mean a total return of 36 units for (and including) the 1 unit wagered. Therefore, 36 for 1 and 35 to 1 are equivalent payouts. Table games almost always use "N to 1" phrasing in payouts, largely because the wagered chips are still sitting on the layout until the bet is won or lost, so any winnings are physically stacked next to the wagered chips if the bet is won. In contrast, slot machine games almost always use "N for 1" phrasing for payouts since slot machine wagers are deducted from credits immediately upon the start of gameplay. Thus, a listed slot machine payout of 50 credits on a 1 coin wager means a win of 49.

78. In practice, physical roulette wheels are nearly always spinning during operation since they are manufactured with low-friction bearings. Colloquially, "a spin" of a roulette wheel is the time between when the ball is released into the wheel and when the ball comes to rest in a pocket, but the wheel itself continues to spin after the ball comes to rest (and is typically spinning before the ball is released, though the dealer may accelerate it in the same direction or change its rotational direction prior to releasing the ball).

79. Internet casino versions of roulette have existed since the 1990s. EX1034.

B. New Games, Side Bets, and Game Modifications

80. Invention of new gameplay methods (or modification of existing ones) was commonplace in the casino industry, and many new table games had been invented before 2018. These new games include Pai Gow Poker (1985)[6], No Commission Baccarat (1987)[7], Caribbean Stud (1988)[8], Let It Ride (1993)[9], Three Card Poker (1994)[10], EZ Baccarat (1997)[11], Blackjack Switch (2004)[12], and Ultimate Texas Hold'em (2009)[13]. The motivation to create new wagering games

[6] EX1035
[7] EX1036, EX1037
[8] EX1038
[9] EX1039
[10] EX1040
[11] EX1041
[12] EX1042
[13] EX1043

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

or modify existing ones often comes down to making games more exciting for players. *See, e.g.*, Baron at [0002] or Kido at [0007]-[0008], both described herein.

81. For an additional example, prior to 2018 I had personally invented several new table games, including a version of acey-deucey with a draw.[14]

82. I was a regular attendee at the annual Global Gaming Expo held in Las Vegas (and its predecessor, the World Gaming Congress and Expo) between 1998, when I first began working in the gaming industry, and the Priority Date. Each year, encouraged by the commercial success of proprietary games like Let It Ride, Three Card Poker, and Blackjack Switch (all of which pre-date the Priority Date), hopeful independent game developers presented new table game concepts at the trade show.[15] Typically, so did the larger corporate competitors in the table games business, and it was typical at the time for larger game distributors to partner with smaller game inventors in a royalty model since the smaller game inventors typically did not have sufficient resources to successfully distribute games into the regulated marketplaces. Those larger corporate competitors included Shuffle Master, Galaxy Gaming, and DEQ Systems. By 2018, Shuffle Master and DEQ Systems had been acquired by Scientific Games, the former name of Light & Wonder.

[14] *See* U.S. Pat. No. 6,457,715
[15] EX1044, EX1045

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

83. Several new or modified games developed prior to 2018 were roulette variations, including Sands Roulette played on a 39-number wheel, Lucky Symbols Roulette with additional non-numeric symbols, Double Ball Roulette using two balls on the same wheel, Double Action Roulette using one ball but two concentric wheels, and Riverboat Roulette with multiple colors.[16]

84. Thus, by February 2018, a POSITA would have been well aware of many casino table games and side bets, the ongoing demand for new or modified casino table games, and the process of developing and distributing them.

C. Electronic Implementations of Table Games

85. By 2018, a POSITA would have been aware that many electronic gaming machine (e.g., slot machine) manufacturers had produced and sold versions of casino table games for their video slot machine platforms, including blackjack on IGT's Game King and roulette on Bally's V32 platform. For another example, while I was employed by Silicon Gaming in 1998-2000, Silicon Gaming sold a blackjack game called Top Hat 21 for its Odyssey video slot machine platform.[17] Because video slot machines use computer technology to process gameplay and display graphics, a POSITA would also have known that all of these video gaming machines inherently included hardware processors. The use of such processors

[16] EX1046
[17] EX1047

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

was a well-known, routine, and conventional means for implementing wagering games via such video gaming devices.

86. By 2018, a POSITA would also have been aware of the multiple manufacturers of electronic multiplayer table games (ETGs) over the years. These vendors included DigiDeal, Shuffle Master, TableMAX and Interblock. For example, at least as early as October 2016, DigiDeal advertised their DTS-X Table Game platform depicting eight 15" touch screen displays around a large center LCD screen.[18] Like their single-player video slot machine counterparts, multiplayer electronic table games use computer technology and inherently utilize hardware processors and player devices to enable players to interact with the game.

87. By November 2010, a POSITA would also have been aware of the wide availability of Internet casino websites and that Internet casino software frequently offered online computer implementations of casino table games, including baccarat, blackjack, and poker. For example, by 2007, WagerWorks' remote game server platform offered dozens of game titles including four different roulette games.[19] A POSITA would have known that, for security and auditing purposes, game results for Internet casino games were determined by remote game servers rather than locally on a player's computer, where game results could be

[18] EX1050
[19] EX1049

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

hacked or manipulated. Those remote game servers inherently contain hardware processors to run the backend software for the Internet casino. Similarly, Internet casino software inherently provides a player interface so the player can interact with and bet on the games using their computers or mobile devices.

88. A POSITA would have known that Internet casino versions of table games, including roulette, had been operated where a computer generates the game results (e.g., uses a software random number generator to spin a virtual roulette wheel), and also where a live dealer generates the game results (e.g., a camera records a human croupier using a physical roulette wheel and ball).

89. A screenshot from a YouTube video[20] posted May 14, 2015 entitled "Roulette strategy for playing online" shows an example of online roulette using a virtual wheel and ball:

[20] https://www.youtube.com/watch?v=E-gyOzulJU4&ab_channel=PaulCarter

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003



90. A screenshot from a YouTube video[21] posted November 20, 2016 entitled "live roulette – best system 2016" shows an example of online roulette using a live dealer to spin a physical wheel and ball at a physical roulette table, where the betting layout is reproduced virtually using computer graphics:

[21] https://www.youtube.com/watch?v=rZiyGHgieyI&ab_channel=roulette



91. Additionally, prior to 2018, applicants filing patents related to new casino table games frequently disclosed, in the patent specification, that a given table game could be implemented in several different ways, including using a physical gaming table (e.g., a felt-covered table dealt by a human dealer), an electronic gaming machine, or an online embodiment. For example, the patent specification for my acey-deucey variation discloses "[t]he game may be played by

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

one or more players, in electronic video versions, on a personal computer, on the Internet, or in live casino table game versions."[22]

92. Also, prior to 2018, several gaming equipment manufacturers had developed and commercialized "hybrid" versions of table games where some aspects of gameplay were handled by computer technology while others were handled by human dealers. For example, the Shuffle Master Rapid Roulette product used a physical roulette wheel in conjunction with electronic terminals for accepting and paying wagers.[23]

93. Shuffle Master and DigiDeal also made "multi-station" or "stadium-style" gaming systems where players could sit at individual gaming terminals (similar in appearance to slot machines) and play games based on results drawn by a central dealer. In other words, instead of a casino dealer dealing to four to eight players (typically, the maximum that can fit at a standard-sized roulette table), a single casino dealer may be able to support 20 or more players each using networked electronic gaming terminals.[24] Like standalone electronic gaming machines and multiplayer electronic table games, multi-station gaming systems could offer different casino games or side bets. *Id.*

[22] *See* US Pat. No. 6,457,715 at 2:14-16, published October 1, 2002
[23] EX1048
[24] EX1048, s*ee also* EX1050 at 8 showing a central 8-player ETG surrounded by 16 individual player terminals.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

94. Thus, by 2018, a POSITA would have been well aware that any table game or side bet capable of being offered on a physical table could also be implemented electronically using conventional computer technology common to the gaming industry, including on a single-player electronic gaming machine, a multi-player electronic gaming table, a hybrid device involving both a human dealer and computer technology, a stadium-style installation, or an Internet casino with either computer-generated results or a live human dealer generating results.

D. Gaming Mathematics

95. The challenged patents state "the payout for numbers not selected at 210 can be set to account for the increased payouts of the selected numbers" (*see* '024 Patent at 5:24-30) and that one payout value of those not-selected numbers can be 29:1, but the patents do not otherwise teach how or why payouts for not-selected numbers would need to be "set to account for the increased payouts." However, a POSITA familiar with gaming mathematics would already understand this concept, and know how to calculate the odds of any given event in a wagering game and derive suitable payouts. Indeed, the desire to calculate the odds in wagering games gave rise to the field of probability theory itself: in 1654, Blaise Pascal and Pierre de Fermat corresponded about two different gambling problems, one about odds in dice-throwing and the other about dividing the stakes in an

interrupted game (the "problem of points").[25] More than 350 years later, a POSITA would have been capable of using probability theory to carry out the calculations necessary to implement the mathematics described in the challenged patents.

96. Specifically, a POSITA would have understood that in roulette, the traditional rules dictate a fixed payout of 35:1 for a straight up bet on any number, regardless of what that number is, and therefore the overall game has a given theoretical edge regardless of the numbers that occur. In roulette, the probability of each outcome is constant and equal[26], namely 1/38 for each of the 38 positions on the wheel. In view of the challenged patents' disclosure of increasing payouts on certain numbers, and in view of the unchanging probability of the roulette numbers themselves, a POSITA would also have understood that payouts on certain other numbers would need to decrease in order to maintain (i.e., "account for") that same theoretical edge – otherwise the house edge on the overall game may shrink or become player-favorable. A POSITA would further understand that the house edge on standard American roulette (with the double-zero position) was 2/38 or approximately 5.26%.

[25] EX1051

[26] Roulette outcomes are intended to be equiprobable, but physical roulette wheels sometimes develop mechanical biases that favor one number over another, and a biased wheel can present a profitable wagering opportunity for observant players. Some casinos use tracking software to detect statistical biases before players can.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

E. Payouts

97. A POSITA would also have understood that games may have payouts that are fixed and constant regardless of the outcome (e.g., in roulette, a straight up bet pays 35:1 regardless of the number), while other games have payouts that vary depending on the outcome (e.g., in craps, the hard 8 bet pays 9:1 but the hard 10 bet pays 7:1; or the field bet pays 1:1 on 10 but 2:1 on 12).

98. Other games employ other sources of variability for the same outcome. For example, in one version of IGT's popular Wheel of Fortune slot machines, the payout for three 7 symbols may be fixed at 50 but if one or two wild multiplier symbols appear (the paytable depicts 2x, 3x, 4x, and 5x symbols), the payout may be multiplied "up to 20x." Additionally, slot machines often have progressive jackpots where the payout slowly increases over time as a share of bets made.



2013 YouTube video depicting IGT Wheel of Fortune game[27]

99. Also, IGT's Wheel of Fortune games use a variable bonus feature where the payout for a given outcome is not known until after a second random event. For example, the payout for achieving the "SPIN" symbol on a payline is not known in advance, but instead depends on the spin of the bonus wheel and may range from 25 to 1000 times the wager:

[27] https://www.youtube.com/watch?v=MthxLr6sobU&ab_channel=CerealMarshmallows





Id.

100. Several other games have used randomness to vary payout amounts for a given game outcome. For instance, in many video poker games, the payout

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

for achieving 4 of a kind is fixed at 25x or 125 on a 5 coin wager. However, some video poker games vary payouts for 4 of a kind depending on which rank is used, for instance 4 Aces may pay 400 coins, 4 2s, 3s, or 4s may pay 200 coins, and 4 of anything else may pay 125 coins, as shown below. Therefore, not all 4 of a kind hands pay the same amount. In IGT's Wheel Poker, the payout for achieving a 4 of a kind is additionally varied by paying the listed amount on the paytable (125, 200, or 400 coins, depending on the card rank) plus a variable amount selected by spinning a wheel ranging from 100 to 2000 credits.[28]



[28] EX1052.

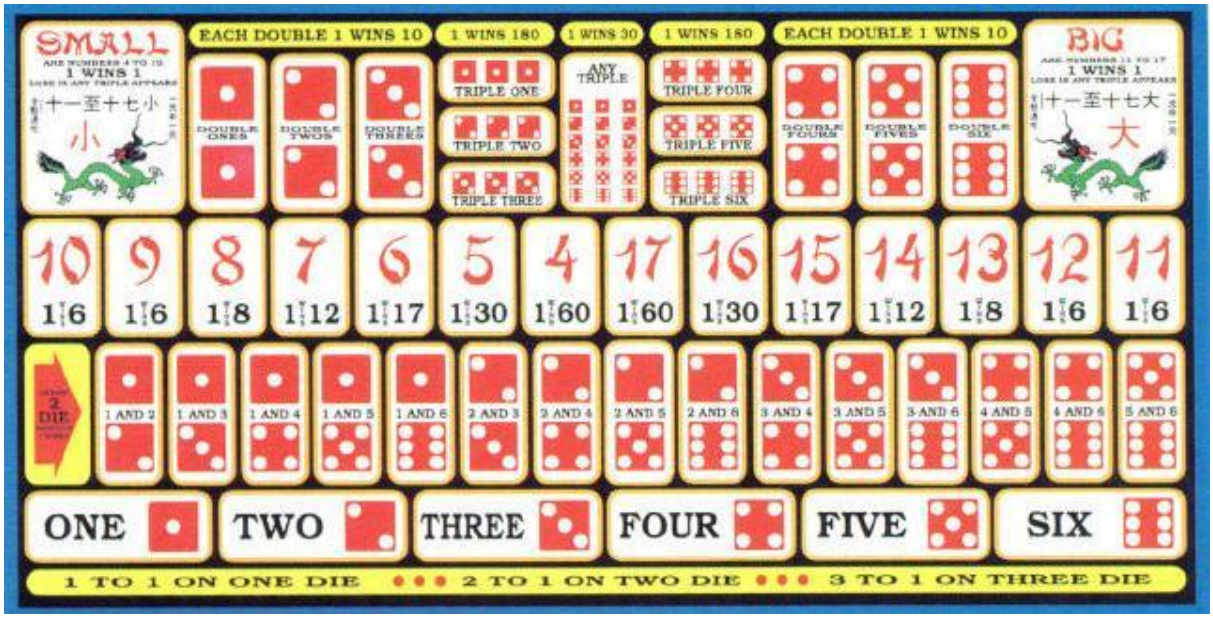
EX1052.

101. Similarly, the AGS Bonus Spin product "is a customizable virtual prize wheel that connects to any table game on your floor."[29] A POSITA would have understood that the traditional payout for blackjack was fixed at 3:2 or 6:5 depending on casino policy, but the Bonus Spin product allows "players who are dealt a blackjack (to) press an automated button that spins a virtual wheel to win various money denominations or a progressive top prize."[30]

102. Additionally, it was already known in at least two prior art casino games, craps and sic bo, to display payout multipliers on the layouts at their corresponding positions. For instance, a sic bo layout from an Atlantic City casino no later than 2011 showed many payouts at their respective positions, including payouts of 6 at the 10 position, 6 at the 9 position, 60 at the 17 position, etc. In other words, when the player bets on the layout at the position marked 17, they will win the indicated payout of 60 to 1 if a 17 rolls:

[29] EX1053
[30] EX1053

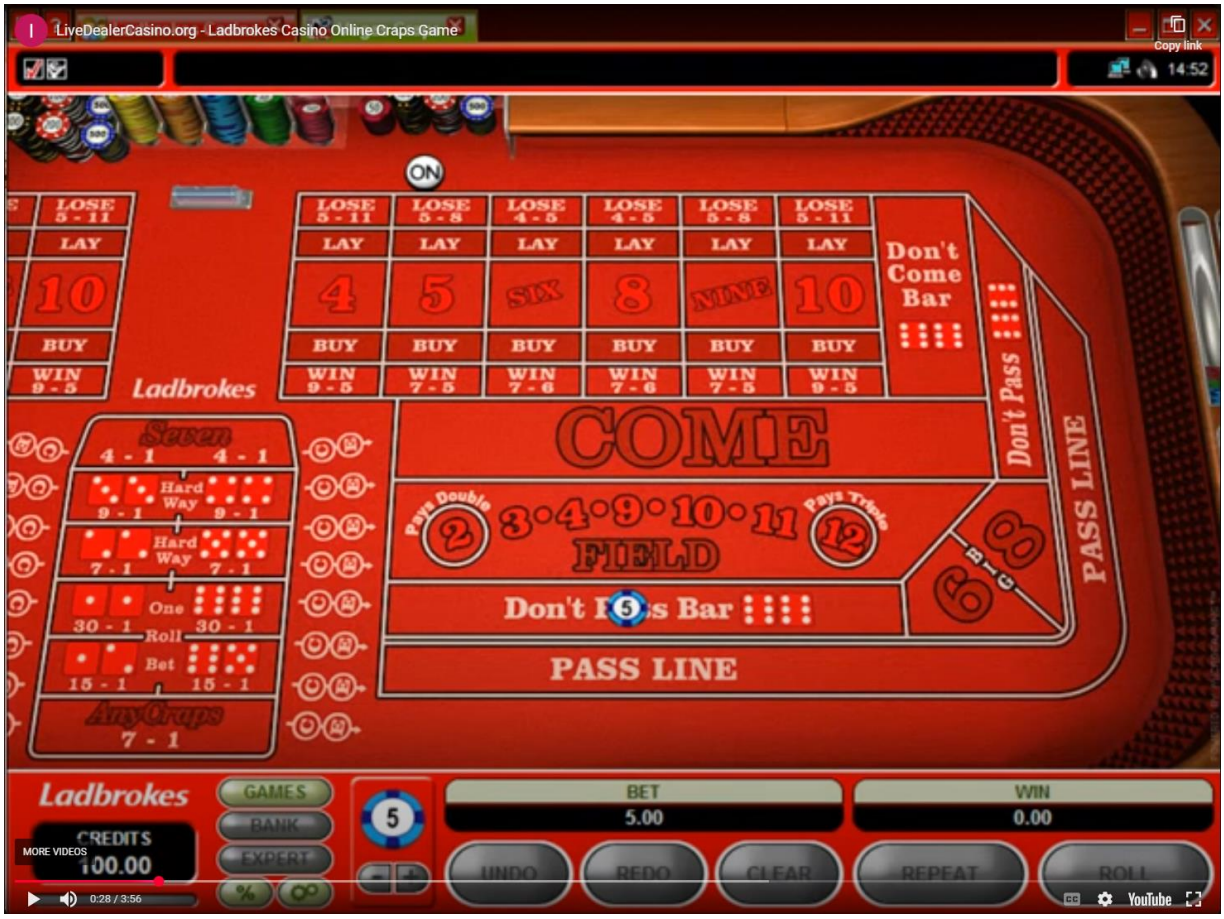
Light & Wonder v. Evolution
Light & Wonder Exhibit 1003



Sic bo layout[31]

103. Also, a craps layout from a YouTube video of an online casino published in 2011 also showed payouts at their respective positions, including 7-1 for the Hard 4 bet, 30-1 for the one roll 12 ("boxcars") bet, and 7-6 for a winning Place 8 wager. A POSITA would have known that most if not all traditional craps tables displayed the payout amounts on the layout at least for the center "prop" bets such as hardways or single roll wagers. When a craps player bets on the 12 bet, they will win the indicated payout of 30 to 1 if a 12 rolls:

[31] EX1060



Online craps layout[32]

X. THE PURPORTED INNOVATION OF THE CHALLENGED PATENTS

104. I am informed by counsel that in the related district court litigation, Patent Owner characterized the purported innovation of the challenged patents as randomly selecting one or more of the roulette wheel numbers and determining

[32] https://www.youtube.com/watch?v=wrQIBAKuVSY&ab_channel=livedealercasinoorg

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

increased payouts for those randomly selected numbers. These steps are shown, for example, in the flowchart of the '014 patent's Figure 2:

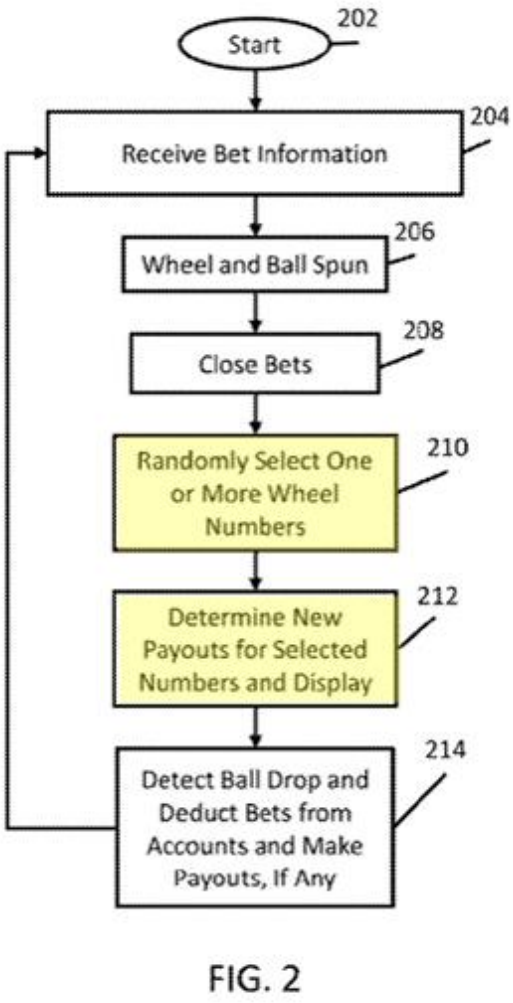


FIG. 2

'014 patent at Fig. 2 (highlighted), see also 4:58-5:32

105. However, a POSITA would have known this purported innovation was not in fact novel in February 2018. Aside from the general background knowledge that a POSITA would have related to random selections and payouts in prior games, as described above, a POSITA would also have been aware of other

prior implementations of the purported innovation as characterized by Patent Owner. 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." Miltenberger at 1:65-67. Figure 35 of Miltenberger, for instance, depicts a roulette wheel in which a processor randomly causes one or more landings (wheel pockets) 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." Miltenberger at 11:19-45. Therefore, a randomly-selected wheel number may lead to an increased (doubled) bonus payout if the ball falls into an illuminated position, corresponding to the two highlighted steps in Fig. 2 of the '014 patent above.

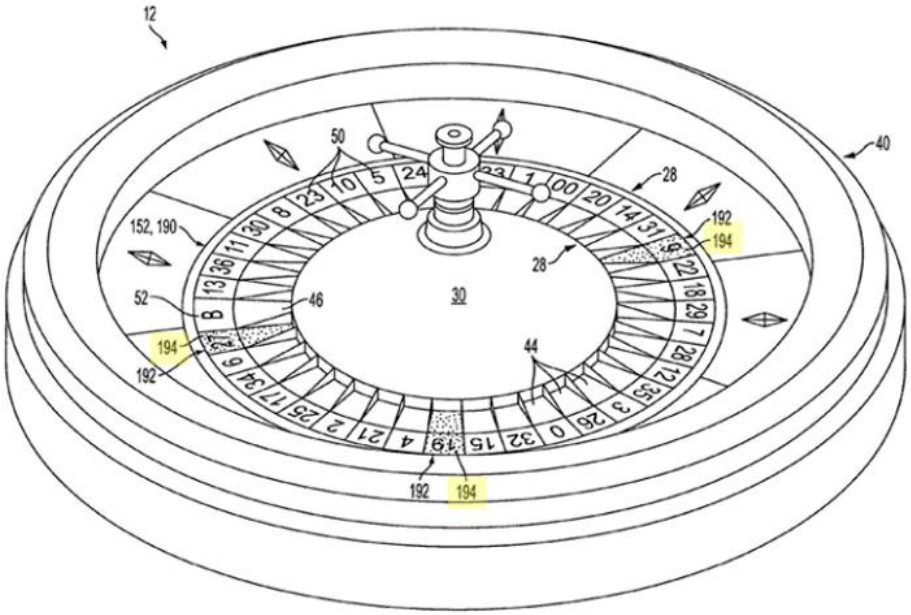


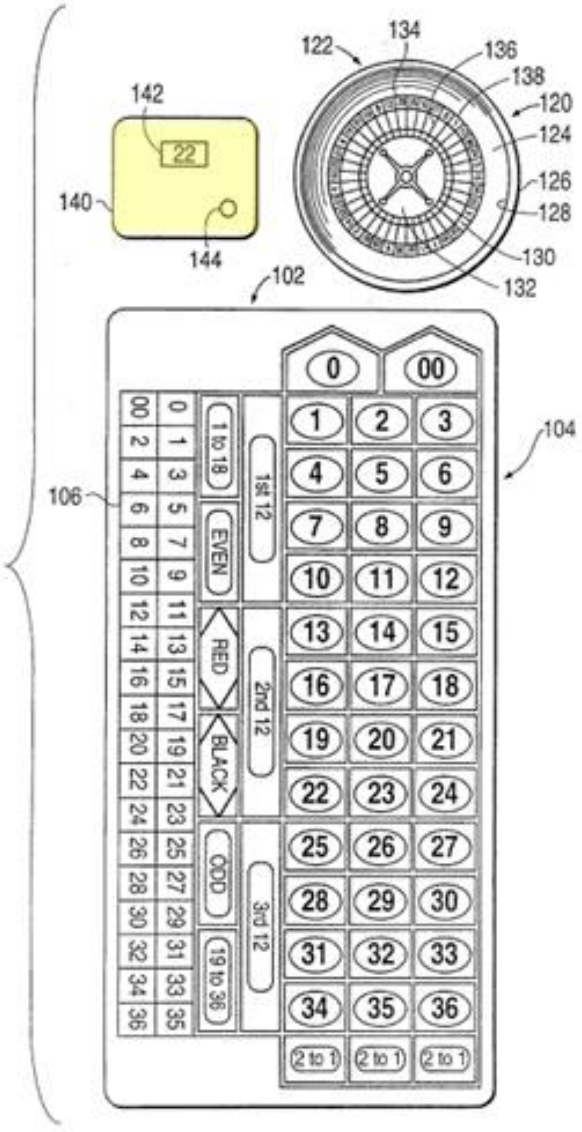
FIG. 35

Miltenberger at Fig. 35 (showing three illuminated numerals 194).

106. As another example, U.S. Patent No. 5,540,442 to Orselli, issued on July 30, 1996 (more than *20 years* before the February 2018 priority date of the challenged patents), discloses combining a roulette spin with a random number generator. "In the roulette play, the croupier introduces a ball into the bowl 122 of the roulette wheel assembly 120 wherein the roulette wheel is 130 is spinning, and typically gives the ball a tangential velocity in a direction opposite to the spinning roulette wheel 130. … At the same time as the roulette play is started, or shortly therebefore or thereafter[33], the random number generator 140 is started. … The random number generator 140 comprises conventional means not shown 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" (Orselli at 4:28-55):

[33] In my opinion, the teaching of Orselli that a randomly generated number may be generated at the same time, shortly before, or shortly after the ball is introduced into the roulette wheel demonstrates that the prior art already contained the claim amendment made by applicant during the prosecution of the '024 patent, namely that the step of "randomly select a first selected position on the roulette wheel" was to be done "prior to the ball falling into a position on the roulette wheel."

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003



Orselli at Fig. 1.

107. Like the purported innovation, those randomly-generated numbers are compared to the position on a roulette wheel into which the roulette ball falls. Orselli teaches that a payout of 1000 to 1 can be paid "because the probability of a coincidence of the number selected by the roulette wheel and that generated by the

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

random number generator is rather small." Orselli at 3:8-12. When compared to the typical payouts in roulette of 35:1 or lower, Orselli's payout of 1000:1 is similar in magnitude to the challenged patents' disclosure of a 499:1 payout. Thus, more than 20 years ago, the prior art disclosed the challenged patents' premise of comparing a randomly-selected number with the result of a roulette spin and awarding larger payouts when that occurs. Orselli further notes that two of its objectives are "to provide a roulette game offering the opportunity for a large payout" and "having greater interest to players." Orselli at 3:15-19.

108. As yet another example, U.S. Patent No. 9,646,459 to Hsu, issued on May 9, 2017, describes a "dynamic raised odds calculation element" that "randomly selects a specific number of … [roulette] game results" eligible for increased payouts. Hsu at 3:1-26; 4:1-5 ("the gambling game system can also be Roulette" where the table "can be a physical table" or "an electronic interface"), Figs. 8, 9. Hsu teaches that "the dynamic raised odds calculation element 30 selects randomly a specific number of the [] game results and generates the dynamic raised odds 511 for the selected game results respectively…. After betting is stopped at each round of game, the display zones 51 immediately display the corresponding dynamic raised odds 511." Hsu at 3:14-26.

109. Similarly, U.S. Patent Pub. No. 2002/0167126 to de Raedt, published on November 14, 2002 and entitled "Roulette Game With a Randomly Selected

Bonus," discloses "randomly selecting a plurality of numbers as bonus game numbers" eligible for increased, multiplied payouts. De Raedt at [0047]-[0051]. De Raedt further discloses that the players may place an "inside bet on any one of thirty-eight roulette numbers 1-36, 0 and 00" as opposed to "outside bets," and that the bonus prizes apply only to either inside bets or outside bets. De Raedt at [0004], [0052]. De Raedt further discloses that at each spin, the controller will automatically re-assign the numbers corresponding to the bonus odds prizes, in order to maintain randomness. De Raedt at [0059].

110. In sum, variants of roulette that included the purported innovation of the challenged patents, namely "randomly selecting one or more of the roulette wheel numbers, and determining increased payouts for those randomly selected numbers," were known years or decades before the earliest priority date of the challenged patents. In my opinion, had such prior art information been disclosed to the USPTO during patent prosecution, the claims of the challenged patents would not have been allowed, as they are no more than obvious modifications of the prior art, if not entirely anticipated thereby. I address two specific examples below.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

XI. SUMMARY OF APPLIED PRIOR ART

A. Kido

111. U.S. Pat. Pub. No. 2008/0248853 ("Kido") was filed March 28, 2008 and published on October 9, 2008, more than a year before the Priority Date.

112. Kido discloses a multiplayer roulette gaming machine. Kido at Abstract. Kido sets forth several processes for its invention that relate to awarding a "privilege" when the player wagers on a position on a roulette wheel, when that position is randomly selected as a "special game value award," and when the ball falls into that position. Kido at [0010]-[0016], [0048]-[0054], [0062]-[0063].

113. Kido teaches that a "privilege unit 113" may provide several kinds of privileges, including "increases a payout rate, based on a payout rate of the rate memory 115," "awards a payout based on the information of the accumulated game value memory," "bets a predetermined game value on a bet area that is randomly selected from the marks," or "awards a game value accumulated every roulette game," Kido at [0109], [0110].

114. Some of the privileges are awarded on a subsequent spin, some of the privileges are paid out on the current spin. For an example of the first type, Kido teaches to double the payouts on a next spin. Kido at [0124]. For an example of the second type, Kido teaches a Prog Bonus Routine that pays an accumulated

progressive jackpot when the player wins on the special game value position. Kido at Fig. 12, [0230].

115. More generally, Kido teaches that when the ball lands in the special game value award mark position, and that position was also wagered on by the player, "the privilege unit 113 awards a privilege and a payout of the privilege is calculated in the payout calculating unit 114. Then, the game value of the payout portion calculated in the payout calculating unit is paid out from the payout award unit 105." Kido at [0114].

116. Kido also describes the special game value award mark as a "star mark." Kido at [0184]-[0185], Abstract, Title. Kido teaches that the star mark may be randomly determined after the ball has been introduced into the wheel and the player's bet time is over, but before the ball comes to rest in a given pocket. Kido at Fig. 14 step E6, [0249]-[0250], [0265].

117. Kido teaches that the privileges described within "may be combined." Kido at [0282].

118. Kido also teaches a "side-bet" routine that provides a wager that wins only when the player wins on a star mark position. *See* Kido at Fig. 15, *cf.* Fig. 12. Kido teaches that the side-bet routine can be executed together with the other routines and can "freely set a privilege of when it is made a win in the star mark 88 and a position determination of the star mark 88." Kido at [0265]-[0266].

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

119. Kido also discloses that in general roulette, the odds are the same every game, but an object of its roulette gaming device is "diversifying a game characteristic and increasing a player's game desire." Kido at [0007]-[0008].

B. Yee

120. U.S. Pat. No. 9,600,974 ("Yee") was filed September 20, 2013, published March 26, 2015, more than a year before the Priority Date, and was granted on March 21, 2017.

121. Yee discloses methods for administering roulette games, including randomly selecting a payout multiplier and applying that multiplier to a player's wager under a specified winning condition. Yee at Abstract. Multipliers may be randomly selected from a fixed group, such as 10x, 25x, 50x, 100x, 250x, 500x, and 1000x. Yee at 8:10-17, Fig. 2 numeral 122. Yee's methods are applicable to several gaming device formats, including single terminals, multiplayer gaming systems, physical roulette tables, or online gaming systems. Yee at Figs. 4, 5A, 5B, 6, 11:47-12:34.

122. Yee discloses that "the wager may be resolved by determining whether the randomly generated number is identical to a randomly generated number from an immediately preceding round" and that "the payout may be equal to an amount of the wager multiplied by the randomly selected multiplier." Yee at 10:15-18, 10:51-53.

123. Yee also discloses that "avid players are generally open to, and sometimes specifically seek out, new and more interesting ways to play roulette, particularly when the reward for a winning outcome at the end of a round of play, or the odds of achieving a winning outcome, may be enhanced." Yee at 1:21-26.

C. Baron

124. U.S. Pat. Pub. No. 2016/0155296 ("Baron") was filed December 2, 2014 and published on June 2, 2016, more than a year before the Priority Date.

125. Baron discloses methods for administering roulette games, including generating a plurality of independently randomized roulette outcomes, and resolving a wager by comparing each of the plurality of roulette outcomes to the predicted (wagered-upon) roulette outcome. Baron at Abstract. Payouts may increase as the number of matched roulette outcomes increases. *Id.* Payouts may be, for example, 7:1 in the event of one match and 100:1 in the event of two matches. Baron at Fig. 13, [0045]. Baron's methods are applicable to several gaming device formats, including single terminals, multiplayer gaming systems, physical roulette tables, or online gaming systems. Baron at Figs. 4, 5A, 5B, 6, [0026], [0051]-[0052].

126. Like Yee, which shares an inventor with Baron and was filed 15 months earlier by the same company, Baron discloses that "avid players are generally open to, and sometimes specifically seek out, new and more interesting

ways to play roulette, particularly when the reward for a winning outcome at the end of a round of play, or the odds of achieving a winning outcome, may be enhanced." Baron at [0002].

XII. ANALYSIS OF '024 PATENT

A. Ground 1: Kido

127. In my opinion, as set forth below, claims 1, 3-5, 7, 8, 10-12, 14, 15, 17, 18, 20 of the '024 patent are unpatentable as being anticipated by Kido, or obvious in view of the disclosures of Kido.

1. Claim 1

a. [Preamble] A system for wagering, comprising:

128. To the extent the preamble is limiting, Kido discloses "a gaming machine including … a plurality of terminal devices, each of which receives a bet on the game and awards a payout." Kido at [0009], *see also* Kido at Fig. 2, Fig. 3, Fig. 6, Fig. 7, [0003], [0017], [0024], [0031], [0039], [0047], [0055]. Kido also discloses a "large-scaled multi-participant gaming system" which is a system for wagering. Kido at [0283].

129. A specific embodiment of a system for wagering is described with respect to Figure 3 of Kido, which depicts "a schematic structure of a roulette gaming device 1." Kido at [0126]. The roulette gaming device 1 of Figure 3 includes twelve stations 4 which "correspond to the terminal devices 103 of Fig. 2"

where each "station 4 serves as a bet unit for receiving a bet operation of a player and a payout unit for awarding a medal." Kido at [0127]. Therefore, Kido's roulette gaming device 1 is a "system for wagering" as recited in the preamble of claim 1. Therefore, Kido discloses this element.

b. [Element 1] a roulette wheel;

130. Kido discloses "a roulette gaming device including: a roulette unit including a wheel on which a ball is rolled at a time of executing a roulette game, the wheel having thereon a plurality of marks." Kido at [0017].

131. In the embodiment of Figure 3, the roulette gaming device 1, includes a roulette unit 3 with a roulette wheel. Kido at [0132]-[0135]. Therefore, Kido discloses this element.

c. [Element 2] a ball configured to be used in the roulette wheel;

132. Kido discloses "a roulette unit including a wheel on which a ball is rolled at a time of executing a roulette game" [0017] and "to roll the ball and determining, as a win mark, a mark corresponding to a stop position of the ball" [0020].

133. In the embodiment of Figure 3, the roulette unit 3 of Kido's roulette gaming device 1 includes a frame 21 with "a ball insertion slot 35…. The ball insertion device is structured to insert the ball 27 from the ball insertion slot 36

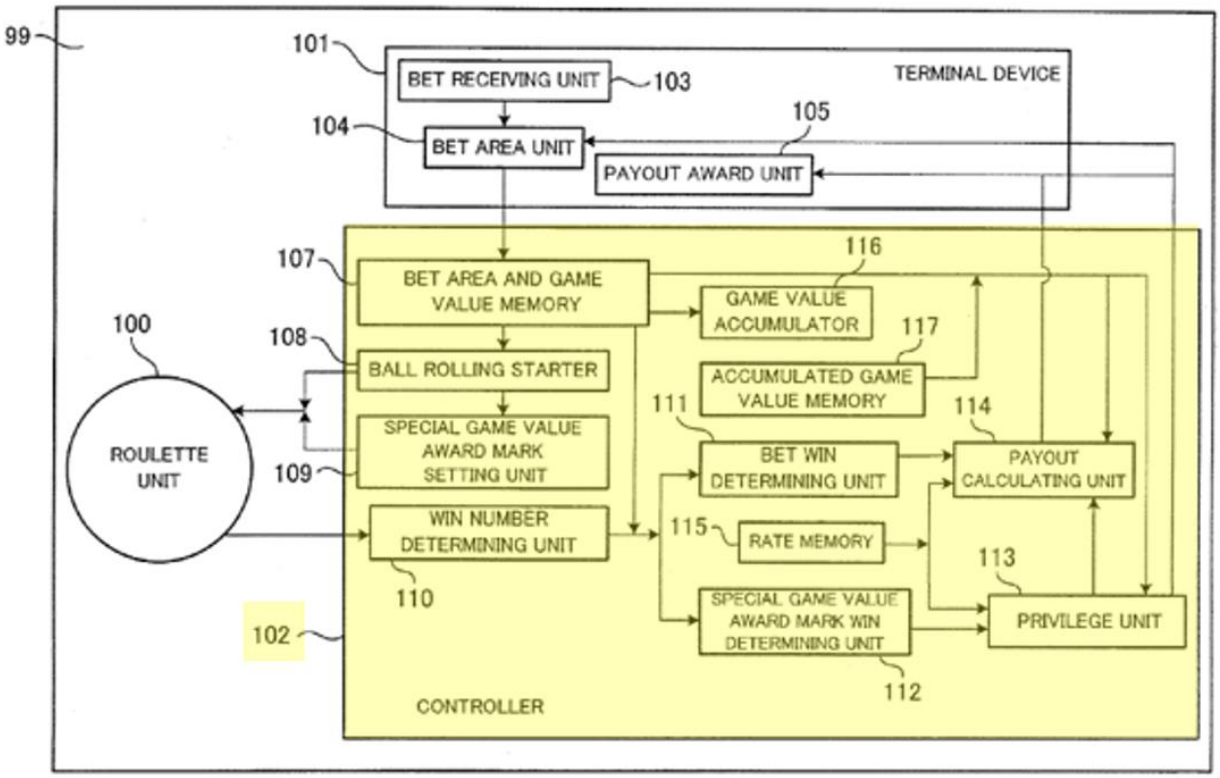
onto the wheel 22." Kido at [0133], [0136]. Therefore, Kido discloses this element.

d. [Element 3] a hardware processor configured to:

134. Kido discloses a "controller 102 is configured to execute a program." Kido at [0080]; *see generally* Kido at [0079]-[0119], Fig. 2. Kido also discloses that "the server 13 includes a server control CPU 81 serving as a calculation device performing an entire control and a control device." Kido at [0153]; *see generally* [0151]-[0160], Fig. 6. Kido further discloses that "the station control unit 90 includes a station control CPU 91." Kido at [0163]; *see generally* [0161]-[0170], Fig. 7.

135. Kido's server control CPU 81 and station control CPUs 91 disclose the claimed "a hardware processor," with the CPUs 81, 91 configured to perform each of the steps of claim 1 of the '024 patent, as explained below. Further, Kido's CPUs 81, 91 are "hardware processors," as referred to in the '024 patent. A POSITA would have understood the acronym "CPU" to stand for "central processing unit," a well-known type of hardware processor. Kido's CPUs 81, 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 "a hardware processor," as claimed.

136. Kido's disclosure of the claimed "a hardware processor" is further reflected in Figure 2, a block diagram of the roulette gaming device 1 depicted in Figure 3. Kido at [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, which includes the aforementioned server control CPU 81. Kido at [0105], [0130][34], [0153].



Kido, Fig. 2

[34] Kido paragraph [0130] states "the server 13 corresponds to the controller 105 of Fig. 2," however, in Fig. 2, the controller is numeral 102, not 105. See also Kido paragraph [0111]. 105 appears to be a mistranscription; see the following footnote for further information.

137. A POSITA 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 functional blocks of the controller 102 of Figure 2 (e.g., "special game value award mark setting unit" 109; see Fig. 14). 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. Kido at [0111] ("controller 102 may be embodied in hardware or software, as required").

138. The '024 patent recites that "hardware processor 602 can include any suitable hardware processor, such as a microprocessor, a micro-controller, digital signal processor(s), dedicated logic, and/or any other suitable circuitry for controlling the functioning of a general-purpose computer or a special-purpose computer in some embodiments." '024 patent at 6:41-46. A POSITA would have understood that the controller and CPUs disclosed by Kido are each disclosures of a "hardware processor" as that term is used in the '024 patent. Therefore, Kido discloses this element.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

e. [Element 4] receive first bet information for a first bet from a first player device of a first player on a spin of the roulette wheel, the first bet information corresponding to at least a first position on the roulette wheel;

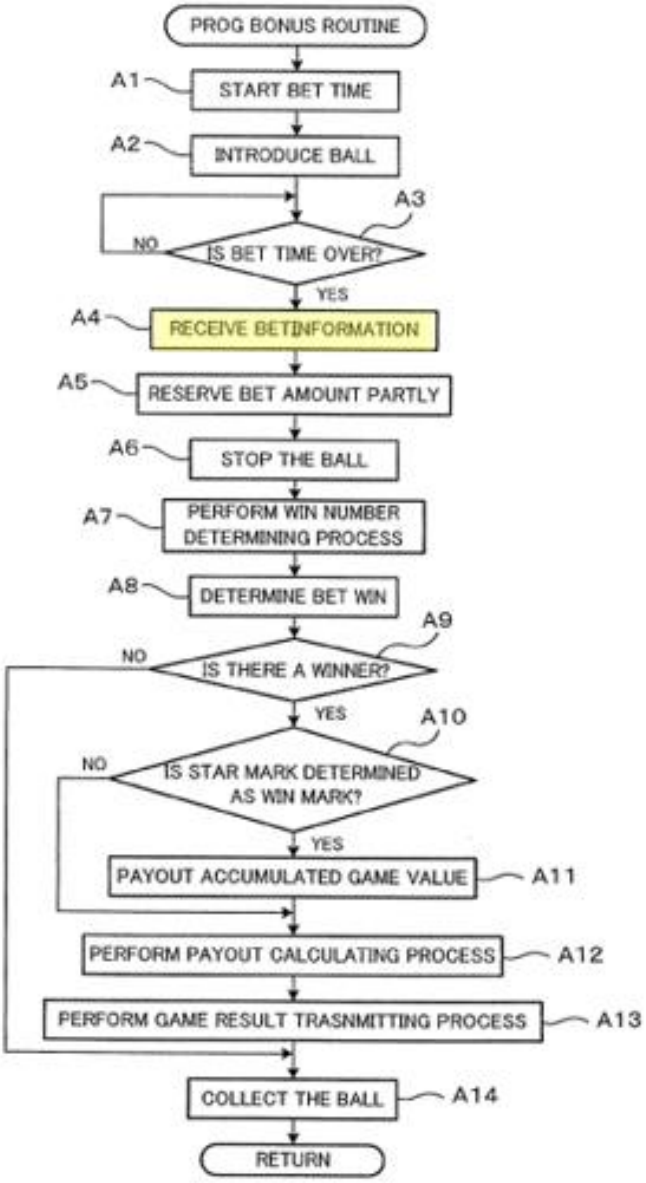
139. Kido discloses that "a player makes a bet, based on the BET screen 31 displayed on the image display device 8 of the station 4." Kido at [0186], Fig. 1, Fig. 3. Kido discloses that "station 4 includes … a station control CPU 91, a ROM 92 and a RAM 93" and that "the current bet information of a player (a bet area indicated in the BET screen 61 [sic: 31] and the number of chips bet) is stored in the RAM 93 at all times." Kido at [0163], [0167], Fig. 7. Kido further discloses that "Furthermore, the bet information is transmitted to the server control CPU 81 and is stored in the bet information memory area of the RAM 83." Kido at [0167]. Therefore, Kido discloses that both the station CPUs 91 and server control CPU 81 (*i.e.*, the "a hardware processor") receive the player's bet information. *See also* Kido at [0127], [0174]-[0188].

140. Kido discloses "As shown in Fig. 5, the chip mark 41 of "7", which is put on the grid of "18", indicates that 7 chips are bet on the number "18". Like this, the bet type in which a bet is made on one number only is referred to as a "Straight Up."" Kido at [0190]; *see also* [0172], [0182]. Kido also discloses the well-known and typical payouts for roulette including the "straight up" (single

number) bet paying at 35-to-1. Kido at Fig. 8, "base odds" column, cf. EX1032 at p. 403, EX1046 at p. 2.

141. In Kido, the player's bets ("first bet information") are "on a spin of the roulette wheel" as claimed. For example, Kido Fig. 12 illustrates "a flow chart of a Prog routine program" (Kido at [0075]) executed by the roulette gaming device 1, showing that bet information is received at step A4 (highlighted in yellow below) for a spin of the roulette wheel:

FIG. 12



Kido, Fig. 12

142. In Kido's Prog routine of Fig. 12, at step A1 a BET timer starts and counts down the remaining time for the player to place a bet. Kido at [0222], *see also* Fig. 5 numeral 39. At step A2 of Fig. 12, during the elapsing BET time, a "ball insertion device is driven to introduce the ball 27 into the wheel 22." Kido at

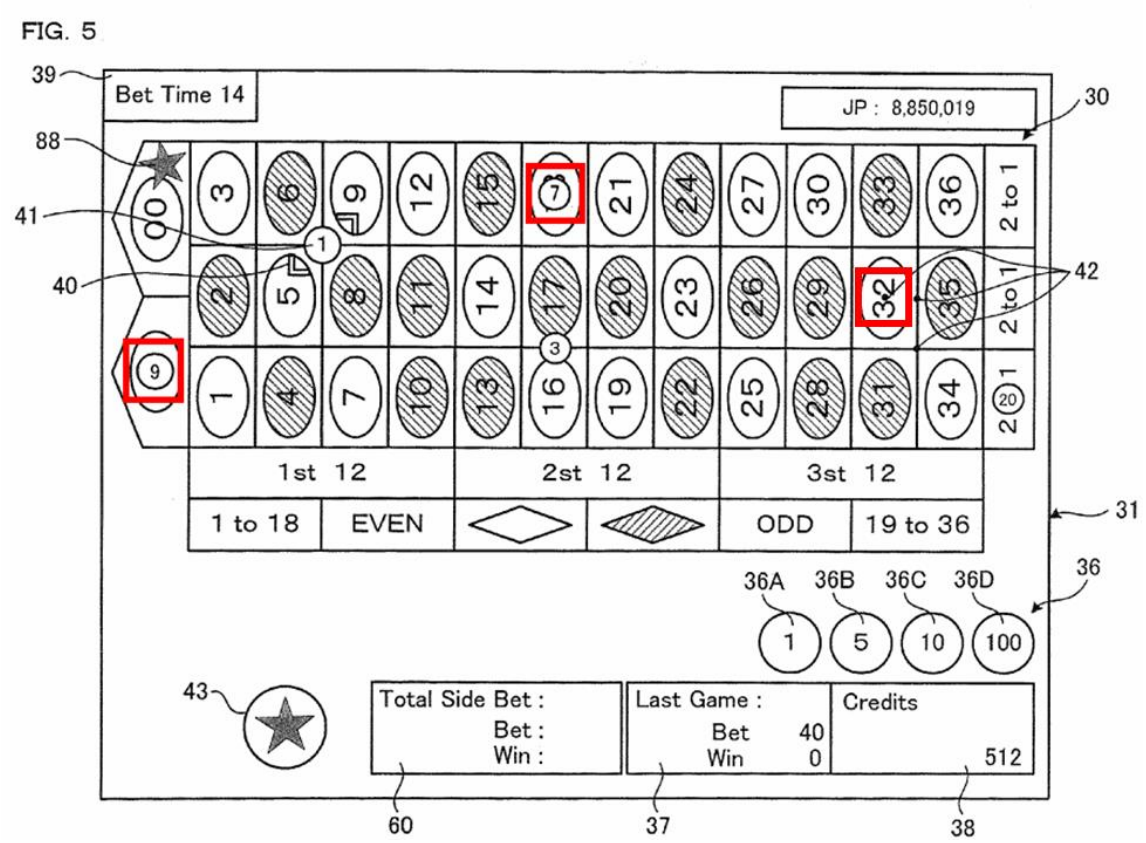
Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

[0223]. Then when the BET timer elapses in step A3, betting is closed and no further bets can be made. Kido at [0224]. A POSITA would understand this process to be equivalent to traditional physical roulette in casinos, where betting is available both before the ball is released into the wheel and for a short period of time after, until the dealer announces "no more bets." At step A4 the server "receives the bet information" for each station. Kido at [0225]. During this process, the ball eventually slows down and falls into a pocket in the wheel (Kido at [0227]), after which the remaining steps of Figure 12 are executed, and "[t]hen, the process returns to the step of A1 and is transited to a next game." Kido at [0233]. Accordingly, the bet information received at step A4 is "on a spin of the roulette wheel," as claimed: In each round of the roulette game played on the device of Kido, players make bets on the spin of the ball into the roulette wheel that is about to occur (or that is currently in progress), and bet information for each bet is received by the CPUs 81 and 91 for that spin. Therefore, Kido discloses this element.

f. [Element 5] receive second bet information for a second bet from a second player device of a second player on the spin of the roulette wheel, the second bet information corresponding to at least a second position on the roulette wheel that is different from the first position;

143. Fig. 5 of Kido, the BET screen displayed on stations 4 as shown in Fig. 3, depicts a first straight up bet of 7 chips on number 18 and a second straight

up bet of 9 chips on number 0, and therefore discloses two different bet informations. One of the "bet areas 42" also points to a single number:



Kido at Fig. 5, straight up bets highlighted. Additionally, as described for Element 4, Kido discloses that each player terminal has its own BET screen, and that players may make their own wagers. It is therefore inherent in the disclosure of Kido that two players can make their own different wagers, each via their own interface, including different straight up bets on the same spin of the roulette wheel. Also as depicted in Fig. 5, a player may make a split bet covering two numbers (illustrated with the small circle numbered 3 between the 16 and 17 areas on the layout). Kido at [0191], Fig. 8. A split bet covering two numbers, both of

which are not the number chosen by the first player, is "second bet information corresponding to at least a second position on the roulette wheel that is different from the first position." Therefore, for the reasons described here and for Element 4, Kido discloses this element.

g. [Element 6] determine that the roulette wheel and the ball have been spun for the spin of the roulette wheel;

144. Kido discloses a horizontally disposed roulette wheel that rotates around a vertical center axis. Kido at [0133], Fig. 1 numeral 3 ("roulette rotation"). The wheel can be covered by a transparent covering. Kido at [0132], Fig. 3 numerals 3, 28. Kido also discloses that a ball is rolled around an outer frame and, as it slows, reaches the rotating roulette wheel. Kido at [0138], Fig. 4. Kido also discloses that "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." Kido at [0154], [0157]; *see also* [0108], [0114], [0153], [0223], [0227].

145. Kido discloses that a ball insertion device inserts or introduces (rolls or shoots) the ball onto the wheel, controlled by the server control CPU 81. Kido at [0136], [0138], [0154], Fig. 1 ("ball introduction"). For example, the server control CPU can wait until a bet timer elapses and then introduce the ball to the wheel. Kido at [0157], [0181], [0211], [0223]. Because the CPU 81 causes the roulette wheel and ball to spin, the CPU 81 necessarily "determine[s] that the roulette wheel and the ball have been spun."

146. The CPU 81 is also configured to determine that the ball has landed in a position. Kido at [0227]-[0228]. Because the CPU 81 (i) starts the spinning of the wheel and ball, and (ii) later determines that the ball has stopped, the CPU 81 necessarily "determine[s] that the roulette wheel and the ball have been spun" during the interim period. Likewise, a POSITA would have understood that because Kido's roulette gaming device 1 is configured to determine a "win number" (*i.e.*, the number of the position into which the ball lands) and players' payouts for the spin of the wheel (Kido at [0228]-[0231], *see also* Fig. 12 at steps A7, A8, A12), the roulette gaming device 1 necessarily determines that the roulette wheel and ball have been spun. Otherwise there would be no win number or payouts to determine.

147. The '024 patent discloses that "a roulette wheel and ball can be spun … in any suitable manner. … in some embodiments, the wheel and ball can be automatically spun under the control of a hardware processor." '024 patent at 4:42-49. Therefore, Kido's server control CPU 81 that controls a rotating wheel and introduces a rolling ball discloses this element.

148. The determination that the wheel and ball have been spun is "for the spin of the roulette wheel" as claimed. In the prog bonus routine of Figure 12, the ball and wheel are spun (Kido at [0223]-[0227]), and the subsequent steps of the routine are then performed, including determining that the ball has stopped and

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

making playouts to players for the spin of the wheel. Kido at [0228]-[0232]. At the conclusion of the routine, "the process returns to the step of A1 and is transited to a next game." Kido at [0233]. The CPU 81's determination that the wheel and ball have been spun—as evidenced at least by the CPU 81's spinning of the wheel and determination of win numbers and payouts for that spin—thus occurs for a spin of the wheel, as claimed.

149. Further, when players make wagers specifically ***on a spin*** of a roulette wheel as claimed (Element 4: "a first bet ***on a spin*** of the roulette wheel" and Element 5: "a second bet ***on the spin*** of the roulette wheel"), it is tautological that spinning the roulette wheel and ball to produce an outcome that resolves those wagers is done "for the spin of the roulette wheel."[35]

150. Additionally, Kido's disclosure is consistent with the '024 patent, which describes (at 3:09-10) a "wheel sensor 104 [that] can detect the spinning of the wheel and the position in which the ball falls. The sensor can be implemented in any suitable manner." Kido likewise discloses that "a win number of the roulette unit 3 [is] determined by a sensor" (Kido at [0156]), and a POSITA would have understood that this sensor would be used to determine that the wheel and ball have been spun. Kido at [0108], [0114], [0137], [0138], [0154], [0201],

[35] As described herein, some roulette wagers take more than one spin to resolve, therefore it is possible that a roulette number generated ***by*** an earlier spin of the wheel could also be used ***for*** a later spin as well.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

[0215], [0228], [0241], [0259]. It would have at least been obvious to use Kido's sensor to detect the spinning of the wheel and ball, as is well-known in the art. For example, a POSITA would have been motivated to use Kido's sensor to provide a variety of functions—e.g., detecting the spinning of the wheel and ball and then determining the position into which the ball lands—thereby avoiding the costs of unnecessary, duplicative components. Therefore Kido discloses this element.

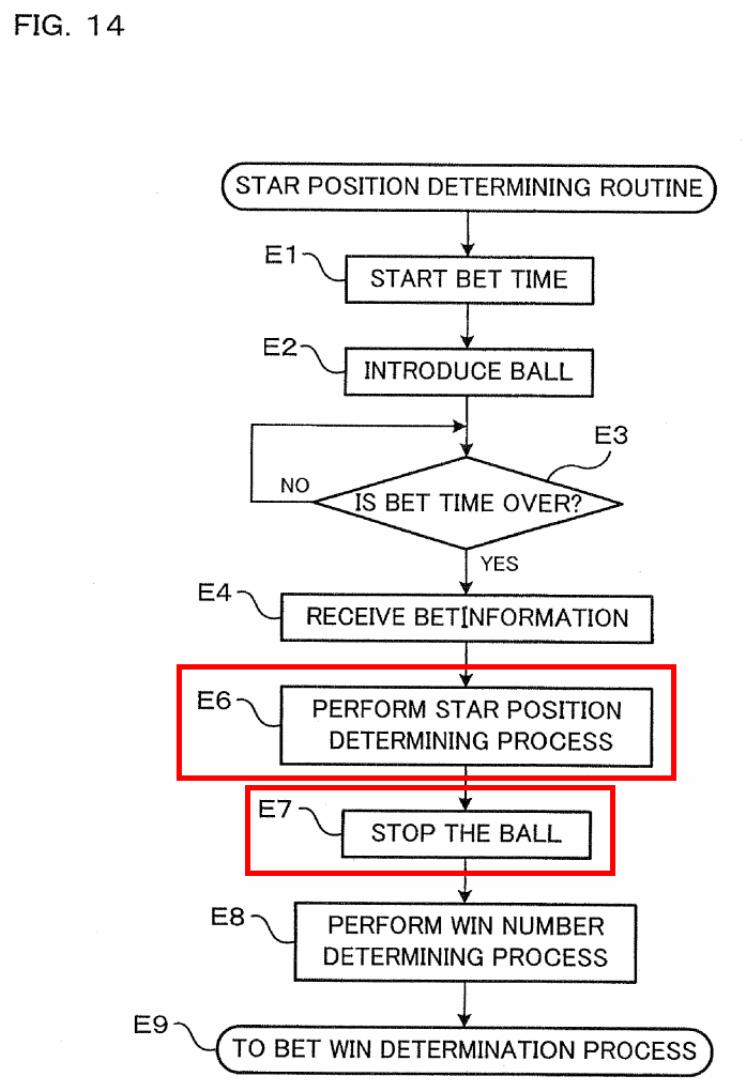
h. [Element 7] randomly select a first selected position on the roulette wheel for the spin of the roulette wheel prior to the ball falling into a position on the roulette wheel, wherein the first selected position is the same as the first position;

151. Kido discloses that "the roulette unit also has a function of randomly selecting a position of the star mark 88. … Fig. 14 is a flow chart of star position determining routine program of a roulette gaming device 1." Kido at [0249], Fig. 1, Fig. 3. Kido's star mark position is disclosure of a first selected position on the roulette wheel, and it is randomly selected. *See also* Kido at [0050]-[0052], [0099]-[0100], [0108], [0114].

152. Kido discloses that the randomly selected star mark is used to determine whether a privilege is won on a given spin of the wheel. Kido at [0063], [0185]-[0186], Figs. 1, 14. Kido's Figure 14 "is a flow chart of a star position determining routine program of [the] roulette gaming device 1," and this figure shows that the random selection of the star mark position at step E6 occurs prior to

the ball falling into a position on the roulette wheel . Kido at [0249], Fig. 14. At step E2, "the ball 27 [is introduced] to the wheel 22." Kido at [0250]. Then, while the ball and wheel are spinning and before the ball falls into an outcome position at step E7, the server control CPU 81 randomly selects the position for the star mark. Kido at [0112], [0250], Fig. 14, numerals E6, E7.

FIG. 14



Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

Kido at Fig. 14, steps E6 and E7 highlighted. *See also* Kido at [0114], [0265]

153. After the ball lands at step E7, steps E8 and E9 are performed to determine the win number for the spin (i.e., the position in which the ball landed for the spin) and whether there was a winner for the spin. Kido at [0229]-[0230], [0250].

154. Kido discloses awarding a privilege when, among other things, "the mark bet is also the special game value award mark." Kido at [0053], [0100]. In this claim, Kido's "the mark bet" for a first player corresponds to the claim term "the first position," and Kido's star mark or special game value award corresponds to the claim term "the first selected position."

155. Kido discloses performing the Star Position Determining Routine of Fig. 14 in conjunction with the other disclosed routines, including transitioning from steps E8 and E9 in Fig. 14 to step A9 in the Prog routine. Kido at [0249]-[0250].[36] 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 POSITA would have understood both alternatives as

[36] I note two other typos in [0250], namely that Kido recites "a step of B6, 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." First, there is no step B6 in Fig. 14, and step B6 in Fig. 9 relates to the win number determining process; but step E6 in Fig. 14 is "Perform Star Position Determining Process." Second, in the description of possible selections for the star mark, "0" is duplicated while "00" is omitted. See [0050], [0134], and Fig. 4.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

being viable options for determining the star mark's position in the Prog bonus routine of Figure 12. Kido at [0221], [0249]-[0250], [0265]. In view of this Kido's disclosure, a POSITA 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. e.g., before step A9 of the Prog routine as disclosed. Kido at [0249]-[0250].

156. Alternatively, Kido also discloses that the position of the star mark can be set in advance of the game. Kido at [0209], [0221], [0249]. In the event the randomly selected position of the star mark is set in advance of the game, the player can choose to bet on the position of the star mark, and therefore the first selected position would be the same as the first position. In this scenario, the star position would be randomly selected "prior to the ball falling into an outcome position on the roulette wheel," and also selected before the game begins. However, this randomly selected star position is nevertheless disclosure of "randomly selecting a first selected position on the roulette wheel for the spin of the roulette wheel." The claim language does not limit the claimed step of "randomly selecting" to occur after the wheel and ball have been spun, only "prior to the ball falling into an outcome position."

157. Kido also discloses "wherein the [randomly selected] first selected position is the same as the first position [on which the first player has placed a

bet]." Kido describes that the "privilege and a payout of the privilege" for the star mark are only available when the first selected position (*i.e.*, the "star mark") is the same as the first position, *i.e.*, the number on which the player has placed a bet. Kido at [0114].

158. Kido's first selected position is randomly selected "for the spin of the roulette wheel," as claimed. Kido's Figure 14 (reproduced above) "is a flow chart of a star position determining routine program of [the] roulette gaming device 1," and this figure shows that the random selection of the star mark position at step E6 occurs for a spin of the roulette wheel. Kido at [0249], Fig. 14. Specifically, at step E2, "the ball 27 [is introduced] to the wheel 22." Kido at [0250]. Then, while the ball and wheel are spinning and before the ball lands at step E7, the server control CPU 81 randomly selects the position for the star mark. Kido at [0250]; *see also* [0112]. After the ball lands at step E7, steps E8 and E9 are performed to determine the win number for the spin (i.e., the position in which the ball landed for the spin) and whether there was a winner for the spin. Kido at [0229]-[0230], [0250]. Accordingly, the position for the star mark randomly selected at step E6 is "for the spin of the roulette wheel," as claimed: In each round of roulette, the wheel is spun, and the position of the star mark is randomly selected for that spin of the wheel. Therefore Kido discloses this element.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

i. [Element 8] determine a first payout for first position and a second payout for the second position for the spin of the roulette wheel, wherein the first payout is higher than the second payout;

159. As described for Element 7, Kido discloses that a star mark may be randomly selected by the controller or CPUs as part of the Prog routine by carrying out the steps in Fig. 14 and then transitioning to step A9 of the Prog routine. Kido at [0249]-[0250], Figs. 1-3, 12 and 14.

160. Step A9 in Kido's Fig. 12 discloses checking for a winner and if yes, determining whether the win occurred in the star mark. Kido at Fig. 12 numerals A9, A10, [0230]. If the win did not occur in the star mark, the payout for the winner "is calculated using the base odds" according to Fig. 8 (e.g., 35:1 for a straight up bet.) Kido at [0231]. However, if the win occurred in the star mark, the payout also includes a progressive or "Prog" bonus, that is "accumulated game value" accumulated from a predetermined ratio of a portion of the chips bet from prior games where the win did not occur in the star mark. Kido at [0226], [0230], Fig. 12 steps A5 and A11. A POSITA would recognize Kido's description of the Prog bonus to reflect the commonplace process for accumulating and paying out a progressive jackpot prize.

161. Therefore, the accumulated game value or progressive prize in step A11 is added to the base odds payout from step A12 when the win occurs in a star mark ("first selected position the same as the first position"), but not when a win

occurs on any other number ("second position different from the first position"), and therefore the amount won from a star mark win ("first payout") will be greater than ("higher than") the amount won from a non-star mark win ("second payout"). Therefore, and for the reasons described for Elements 4, 5, and 7, Kido discloses this element.

162. Alternatively, Kido discloses that the base odds payout for a non-star mark win may be 35:1 for a straight up bet, while payout odds for a star bonus win may be 71:1 ("doubled") for a straight up bet. Kido at Fig. 8, [0172]. In view of Kido's disclosure that its various privileges may be combined, Kido therefore discloses or at least suggests that a single-number win on a star mark position may pay twice the payout odds (higher) compared to a single-number win on a non-star mark position. Kido at [0282]. Kido also discloses the traditional roulette payouts of 35:1 for a straight up bet and 17:1 for a split bet. Kido at Fig. 8, [0190]-[0191]. When a first player makes a straight up bet and a second player makes a split bet, both Kido and the traditional rules of roulette disclose that the first payout is higher than the second payout.

163. Alternatively, Kido discloses that one player may win while another player may lose, either based on whether placed bets match with a win number generally, or whether a win occurs in the star mark specifically. Kido at [0124], [0186]-[0187]. For example, Fig. 1 shows a win leading to an increase in credits

and a loss leading to a decrease in credits. Kido at Fig. 1, [0186], [0187]. A first winning player's increase of credits is necessarily a higher payout than a second losing player's decrease of credits. Put another way, Kido discloses that making a wager decreases the credit-number indicator 38 by the corresponding bet amount, and winning a wager increases the credit-number indicator, so a winning player receives a greater-than-zero payout which is higher than a losing player's payout of zero. Kido at [0179], Fig. 1. It is inherent that if two players make different straight up bets as claimed in Elements 4 and 5 on the same spin of a roulette wheel, if the first player wins, the second must necessarily lose. Therefore, when one player wins a straight up bet and another player loses a different straight up bet, Kido (and the traditional game of roulette itself) discloses determining a first (positive) payout for the first (winning) position for the spin of the roulette wheel, and determining a second (zero) payout for the second (losing) position for the spin of the roulette wheel, and a positive payout is always greater than (higher than) zero. The claimed steps of "determine a first payout" and "[determine] a second payout" are further disclosed by Kido's various "perform payout calculating process" steps. Kido at Fig. 9 numeral B10, Fig. 11 numeral C10, Fig. 12 numerals A11 and A12, Fig. 13 numeral D10, Fig. 15 numeral F11.

164. In this scenario, the steps of determining payouts occurs after the ball has stopped and the winning number for the spin is known, but the claim language

for Element 8 does not limit the claimed step of "determine a first payout" to occur "prior to the ball falling into an outcome position."[37]

165. Kido's winning payouts, whether occurring in the star mark position or not, are payouts "for the spin of the roulette wheel." As explained above, Kido's Figure 12 "is a flow chart of a roulette game processing program" executed by the server control CPU 81 of the roulette gaming device 1. Kido at [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. Kido at [0227]-[0228]. After the ball is received in a pocket, the remaining steps of Figure 12 are executed, with the server control CPU 81 determining the first and second payouts by performing steps A9-A12. 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." Kido at [0228]-[0233]. Kido's payouts are thus determined "for the spin of the roulette wheel," as claimed.

166. I understand Patent Owner argues that Kido's Prog bonus is "accumulated from prior games of roulette" and therefore "is not for the single

[37] To the extent patent owner argues that the step of Element 8 must necessarily occur prior to the ball falling into an outcome position per the step of Element 9, and therefore Kido's disclosure of winning or losing wagers cannot satisfy the claim language, I would disagree since the claims are not so limited. During patent prosecution of the parent application, the applicant amended Element 7 to add the limitation that the claimed step of "randomly select" occurred "prior to the ball falling into an outcome position on the roulette wheel," demonstrating that the applicant knew how to limit certain claim steps to occurring in a specific order. The "determine a first payout" step of Element 8 was not similarly limited and therefore need not occur "prior to the ball falling into an outcome position on the roulette wheel."

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

'spin of the roulette wheel.'" But the claims do 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. Regardless, a POSITA would have also understood that the funds paid from a Prog bonus could be sourced from a single round of roulette (in other words, that it is possible for two progressive prizes to hit on back-to-back players): For example, after awarding the prog bonus in a first round, this award would be reset and need to be built up again, starting in a next, second round. As described herein, Kido discloses reserving a "predetermined ratio" of the wager and accumulating that amount (i.e., a progressive prize). Kido at [0226], Fig. 14 numeral A5. 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, since the accumulated prize from prior rounds had already been paid in that first round. Kido at Fig. 14 numeral A11. Further, Kido more generally describes awarding "a privilege and a payout" to players as a bonus in a current game round, without limiting such payouts to progressive payouts. Kido at [0112], [0114].

167. Therefore, Kido discloses this element.

j. [Element 9] determine that the ball has fallen in the first position for the spin of the roulette wheel; and

168. In step A7 of Kido's Figure 12 Prog bonus routine, the server control CPU 81 determines "the numbered pocket 23 into which the ball 27 is received."

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

Kido at [0228]. Then, 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." Kido at [0229]. In determining whether a player's bet on a first position is a winner at step A8, the CPU 81 necessarily determines whether the ball has fallen into the first position. For a straight up bet on a single position, that is how a player wins—only if the ball falls into that position—meaning that Kido's system necessarily "determine[s] that the ball has fallen in the first position," as claimed. *See also* Kido at [0108].

169. Further, Kido discloses steps of "stop the ball" and "win number determining process" for each of its routines, and that those routines are carried out by the controller or CPUs in the roulette gaming system. Kido at Figs. 1-3, Fig. 9 numerals B5 and B6, Fig. 11 numerals C5 and C6, Fig. 12 numerals A6 and A7, Fig. 13 numerals D5 and D6, Fig. 14 numerals E7 and E8, Fig. 15 numerals F6 and F7. Kido also discloses "determining, as a win mark, a mark corresponding to a stop position of the ball." *See, e.g.,* Kido at [0020], [0027], [0035], [0042], [0059]. Moreover, the claimed ball is the same ball that was determined to "have been spun for the spin" in Element 6 as described above, so the determination that the same ball has fallen into a position is "for the spin of the roulette wheel." As explained above, the steps of Figure 12 (including A7 and A8) occur within a

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

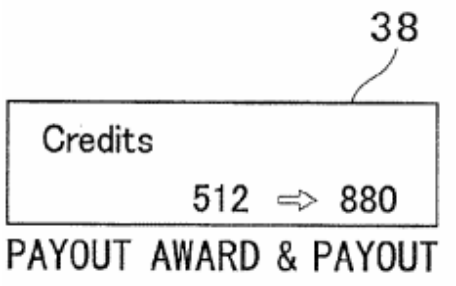
single round of roulette, for a single spin of the roulette wheel, until the routine "returns to the step of A1 and is transited to a next game." Kido at [0233].

170. As described for Element 4, Kido discloses a player making a straight up bet on the claimed "first position". Kido also discloses that bets may win (which is inherent in roulette wagers) and expressly provides base payout odds for straight up bets at 35:1. Kido at [0172] ("'odds' means a payout-number of credits for a win"), [0186], [0191]. The claimed determination "that the ball has fallen in the first position" is therefore a determination that the first player's bet has won. Therefore, Kido discloses this element.

k. [Element 10] indicating that the first player is to be paid at the first payout for the spin of the roulette wheel.

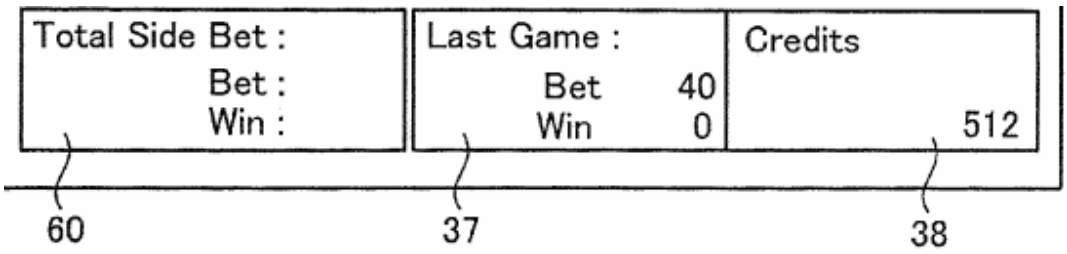
171. Kido discloses, after its payout calculating process, a game result transmitting process. Kido at Fig. 9 numerals B10 and B15, Fig. 11 numerals C10 and C11, Fig. 12, numerals A12 and A13, Fig. 13 numerals D10 and D15, Fig. 15 numerals F11 and F12. For example, step A13 comprises "transmitting to all the stations 4 a signal relating to a display change accompanying the payout of credits based on the payout calculating process of A12." Kido at [0232]. Fig. 1 numeral 38 of Kido illustrates an increase in credits after a win.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003



Kido at Fig. 1, cropped

172. The credit-number indicator (credit meter) 38 depicted in Fig. 1 is shown in more detail on the BET screen 31 as depicted in Fig. 5, which is the same BET screen 31 used on the stations 4 in Fig. 3. Kido at [0175], [0179], [0185], [0186]. Further, Kido discloses cashout results indicator 37 including an indication of the credits bet and won on the last game, and that the cashout results are added to the credit number indicator 38. Kido at Fig. 5 numerals 37 and 38, [0178], [0179].



Kido at Fig. 5, cropped. *See also* Kido at [0232]. Kido also explains that the gaming machine may use "an image display device that displays a game result." Kido at ¶[0082]. A POSITA would understand that the "game result" on the game display recited in Kido would indicate the first payout.

173. Therefore, Kido discloses a cashout results indicator that indicates a win amount to be added (paid) to the player's credits as a result of any winnings

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

"for the spin of the roulette wheel" that has just concluded, including that the player is to be paid at the claimed "first payout" when the first player wins a straight up bet on the star mark position as further described for Element 8. Therefore Kido discloses this element.

174. For the reasons herein, it is my opinion that Kido discloses each element of claim 1 of the '024 patent.

To the extent it is found that any element is not disclosed expressly or inherently, it is my opinion that Kido renders obvious such element for the reasons expressed herein.

2. Claim 3: The system of claim 1, wherein the hardware processor is further configured to close bets when the roulette wheel and the ball are determined to have been spun.

175. As described for Element 4 of claim 1, Kido discloses a BET timer that starts a time period during which the player can make bets, and when it elapses, betting is closed and no further bets can be made. Kido at [0222]-[0224], Fig. 12. Kido further discloses that the ball is introduced at a predetermined time remaining on the BET timer, giving an example of 10. Kido at [0223]. Thus, Kido inherently discloses introducing the ball at any other predetermined time on its BET timer, including zero, which is disclosure of closing bets "when" the ball is introduced.

176. Kido's specific example of introducing the ball with 10 seconds remaining on the BET timer is also disclosure of closing bets after the roulette wheel and the ball are determined to have been spun. In the challenged patents, the described process for closing bets takes place after, not simultaneously with, spinning the ball and wheel: "***next***, at 206, a roulette wheel and ball can be spun … at 208, bets can ***then*** be closed by process 200." '024 patent at 4:40-48, Fig. 2:

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

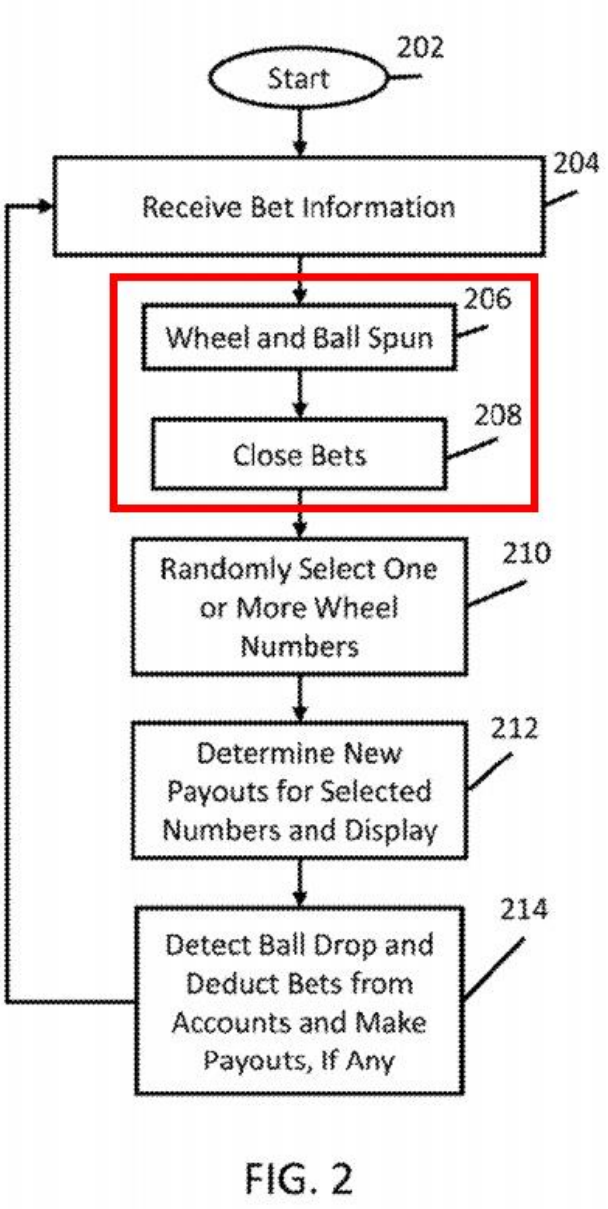


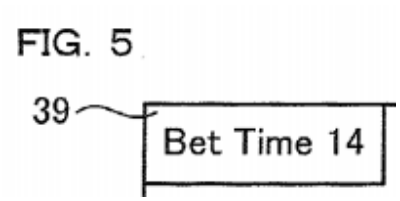
FIG. 2

'024 patent at Fig. 2, highlighted

177. In another embodiment, Kido discloses closing bets *before* the ball is introduced: "after a bet time is over, a ball is introduced into the roulette unit 100 from the ball rolling starter 108." Kido at [0122]. Therefore, Kido discloses all possible temporal relationships between its BET timer elapsing (closing bets) and

introducing the ball (spinning the ball and wheel): before, at the same time as, and after. Therefore Kido discloses this element.

178. Though it does not specify as much, a POSITA would understand the BET timer described in Kido, e.g., as depicted in Fig. 5, to be counting down in seconds as no other unit of time would make sense in context:



Kido at Fig. 5, excerpt

179. Further, and as described in the background section above, it was standard practice in most casinos at the time of the alleged invention to close bets once the roulette wheel and ball have been spun. Players would place their bets while the dealer calls for bets, the dealer would spin the wheel and throw the ball in the opposite direction, and as the ball travels around the wheel, the dealer would announce "no more bets," signaling that no further bets can be placed or changed. This enabled fairness by preventing players from attempting to place last-moment bets based on the observed behavior of the ball. This conventional practice is well-documented in the prior art. *See, e.g.*, WO 2015/139088 to Witty (EX1027) at 12:1-12 ("[T]he croupier spins the ball in the roulette wheel 104. A short time later the ball in the wheel 104 slows down and the croupier announces 'no more bets', thereby concluding the wager phase."); It was also known to require players

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

to make bets before the wheel and ball have been spun. U.S. Patent Pub. No. 2011/0006477 to Miller (EX1026) at [0448] ("[A] player must place bets before the spin begins.").

180. Accordingly, it would have been obvious to have Kido's CPUs 81, 91 "close bets when the roulette wheel and the ball are determined to have been spun," as was conventional at the time of the '024 patent. Players would have expected Kido's roulette gaming device 1 to include this common feature and, hence, a POSITA would have been motivated to include it. A POSITA would have had a reasonable expectation of success of implementing this feature since Kido discloses that the CPU 81 is configured to control when bets can be placed, and any modifications to Kido needed to implement this feature (to the extent it is not already disclosed) would have been minimal and well within a POSITA's skill. Kido at [0221]-[0225].

3. Claim 4: The system of claim 1, further comprising a display adjacent to the roulette wheel that indicates the first selected position.

181. Kido discloses that the star mark 88 is displayed on the BET screen 31 displayed on the display device 8 at each player station. Kido at [0184]-[0188], Fig. 3 numerals 8, 31, Fig. 5 numeral 88. Specifically, Fig. 3 depicts a "display (numeral 8) adjacent to the roulette wheel (numeral 3)" and Fig. 5 depicts the "first

selected position (numeral 88)." *See also* Kido at [0122], [0143]. Therefore, Kido discloses this element.

4. Claim 5: The system of claim 4, wherein the hardware processor is further configured to cause a lightning visual effect to be presented when in connection with indicating the first selected position.

182. I am informed by counsel that a "lightning visual effect (that is) presented in connection with indicating the first selected position" is non-limiting printed matter.

183. Regardless, in my opinion it would have been obvious to a POSITA to substitute a lightning visual effect for the star mark disclosed by Kido, or add a lightning visual effect to the disclosed star mark, for several reasons. One is that Kido discloses that "by generating the image information and the effect sound to notify a player of the privilege award information in this roulette game, it is possible to increase a player's expectation on the roulette game." Kido at [0188]. In addition, "[t]he roulette gaming device 1 has … an electric light indicator 5." Kido at [0126]. "[T]he server control CPU 81 is associated with the electric light indicator 5. The server control CPU 81 controls light emission of a light emitting member such as LED to perform an effect by an electric spectacular and to display predetermined letters on the electric light indicator 5." Kido at [0158].

184. Kido thus discloses that, when the number bet on by the player is the same as the special game value award mark, Kido's system generates both sound

effects and visual effects "to perform an effect by an electric spectacular." Kido at [0158]. A POSITA would have understood that the specific visual nature of the spectacular to be generated "in connection with indicating the first selected position" would have been an arbitrary design choice. In my view, a lightning visual effect would have been an obvious choice to a POSITA. Kido teaches the benefits of audiovisual effects, and a POSITA would have been well aware of numerous electronic games involving "lightning visual effects" imagery, including Aristocrat's popular "Lightning Link" series of games. First released in 2014, and exhibited at the G2E industry tradeshow in Las Vegas in October 2015, Lightning Link involves "lightning visual effects" in both the title and gameplay (as shown in the screenshots below). By 2018 Lightning Link games were some of the most popular electronic wagering games in the marketplace due to their popular "Hold & Spin" bonus feature. The title "Lightning Link" includes lightning bolt images for all three instances of the letter "I" and also features lightning effects around and behind the title. During the bonus round, the game animation presents a lightning visual effect in connection with indicating each prize position in a grid of up to 15 positions.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003



Screenshot from YouTube video published on October 21, 2015.[38]



Screenshot from YouTube video published September 9, 2015.[39]

[38] https://www.youtube.com/watch?v=h9A1ekq4DPY&ab_channel=RandomSlots
[39] https://www.youtube.com/watch?v=8gpp0KD04-E&ab_channel=Jarrydlawton

185. Additionally, WMS Gaming (now owned by Light & Wonder) filed for a trademark on its "Zeus" slot machine on May 16, 2012, a filing that included a specimen showing a raised fist holding a lightning bold (*i.e.*, a "lightning visual effect."[40]



Excerpt from specimen in U.S. Reg. Trademark 4,896,961

186. Lightning bolt imagery also appears in a specimen dated December 20, 2016 in a trademark filing by Aries Technology[41]:

[40] https://tsdr.uspto.gov/documentviewer?caseId=sn85626722&docId=SPE20120519071222&linkId=27#docIndex=26&page=1

[41] https://tsdr.uspto.gov/documentviewer?caseId=sn86254406&docId=SPE20161221174429&linkId=11#docIndex=10&page=1



Excerpt from specimen in U.S. Reg. Trademark 5,146,998. *See also* Miltenberger at 11:19-45 ("bonus lighting" to indicate positions eligible for increased payouts); Hsu at 3:59-61 ("raised odds [displayed] by color change, luminosity increase or profile highlight").

187. Second, a POSITA with knowledge of visual imagery in prior electronic gaming machines would have found both lightning and stars to be imagery associated with winning or prizes, and substituting one such image for another would have been a simple matter of design choice with predictable results.

188. Therefore, a POSITA would have found it obvious to present such a popular visual effect as a lightning visual effect in connection with indicating the claimed first selected position.

5. Claim 7: The system of claim 1, wherein the hardware processor is further configured to:

a. [Element 1] randomly select a second selected position on the roulette wheel; and

189. Kido discloses that an "object of the invention is to provide a roulette gaming device that awards a new game value to several numbers (including letters) serving as a figure letter including numbers such as numbers indicated on a wheel." Kido at [0008]. Kido discloses setting such a "star mark 88," so it is at least obvious that the object of Kido's invention can be satisfied by "awarding a new game value to several star marks."

190. Kido further discloses multiple privilege routines, each of which can randomly select a position of the star mark. Kido at [0249], [0282], Fig. 14. Kido also discloses that the privileges may be combined. Kido at [0282]. In the event of combining privileges, there are only two possibilities: either the same star mark is used to trigger both privileges, or two different star marks are used to trigger one privilege each. A POSITA would have understood that combining privileges triggered by the same star mark (same roulette number) would lead to higher mathematical variance than implementing two privileges with different star

positions each, and would have chosen either approach based on the mathematical design goals of the game (higher hit frequency vs. higher average winning payout). Therefore, it would have been at least obvious to combine two privilege routines by randomly selecting a position of a different star mark for each one, such that one privilege would be awarded on a first star mark and a second privilege would be awarded on a different mark. Therefore, Kido renders obvious "randomly select[ing] a second selected position on the roulette wheel" as claimed.

b. [Element 2] determine a payout for the second selected position that is different than the payout for the first position.

191. In my opinion, once a POSITA had selected two different star marks in the system of Kido as described above, it is inherent that the determined payouts for a win on the first and second marks could only either be the same or different. Therefore, it is at least obvious that the payouts for winning on a first star mark vs. winning on a second star mark can be different. Doing so would also satisfy the "object of the invention [which] is to provide a roulette gaming device that awards a new game value to several numbers." Kido at [0008]. As described herein, a POSITA would understand that many other games provided different awards for different winning outcomes so it would have been obvious to do so in Kido. *See* Section IX.E.

192. 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." Kido at [0006]-[0008]. A POSITA would have recognized that using different payouts for the first and second randomly selected positions would add excitement for players, thus motivating the POSITA to select this option. Further, the random selection of multiple positions with different payouts was known in the art, which would have further motivated a POSITA to employ this technique in Kido. *See, e.g.*, EX1018 de Raedt at Abstract.

6. Claim 8

a. [Preamble] A method for wagering, comprising:

193. As described for Claim 1, Kido discloses several methods for wagering, including several privilege routines. Therefore, to the extent the preamble is limiting, Kido discloses a method for wagering.

b. [Element 1] receiving, using a hardware processor, first bet information for a first bet from a first player device of a first player on a spin of a roulette wheel, the first bet information corresponding to at least a first position on the roulette wheel;

194. Kido discloses this element for the reasons described for Claim 1, Element 4.

c. [Element 2] receiving, using the hardware processor, second bet information for a second bet from a second player device of a second player on the spin of the roulette wheel, the second bet information corresponding to at least a second position on the roulette wheel that is different from the first position;

195. Kido discloses this element for the reasons described for Claim 1, Element 5.

d. [Element 3] determining, using the hardware processor, that the roulette wheel and a ball on the roulette wheel have been spun for the spin of the roulette wheel;

196. Kido discloses this element for the reasons described for Claim 1, Element 6.

e. [Element 4] randomly selecting, using the hardware processor, a first selected position on the roulette wheel for the spin of the roulette wheel prior to the ball falling into a position on the roulette wheel, wherein the first selected position is the same as the first position;

197. Kido discloses this element for the reasons described for Claim 1, Element 7.

f. [Element 5] determining, using the hardware processor, a first payout for first position and a second payout for the second position for the spin of the roulette wheel, wherein the first payout is higher than the second payout;

198. Kido discloses this element for the reasons described for Claim 1, Element 8.

g. [Element 6] determining, using the hardware processor, that the ball has fallen in the first position for the spin of the roulette wheel; and

199. Kido discloses this element for the reasons described for Claim 1, Element 9.

h. [Element 7] indicating, using the hardware processor, that the first player is to be paid at the first payout for the spin of the roulette wheel.

200. Kido discloses this element for the reasons described for Claim 1, Element 10.

7. Claim 10: The method of claim 8, further comprising closing bets when the roulette wheel and the ball are determined to have been spun.

201. Kido discloses this element for the reasons described for Claim 3.

8. Claim 11: The method of claim 8, further comprising indicating the first selected position on a display adjacent to the roulette wheel.

202. Kido discloses this element for the reasons described for Claim 4.

9. Claim 12: The method of claim 11, further comprising causing a lightning visual effect to be presented when in connection with indicating the first selected position

203. Kido discloses this element for the reasons described for Claim 5.

10. Claim 14: The method of claim 8, further comprising:

a. [Element 1] randomly selecting a second selected position on the roulette wheel; and

204. Kido discloses this element for the reasons described for Claim 7, Element 1.

b. [Element 2] determining a payout for the second selected position that is different than the payout for the first position.

205. Kido discloses this element for the reasons described for Claim 7, Element 2.

11. Claim 15

a. [Preamble] A non-transitory computer-readable medium containing computer executable instructions that, when executed by a processor, cause the processor to perform a method for wagering, the method comprising:

206. As described for Claim 1, Kido discloses that its server and stations have control CPUs ("processors," respectively 81 and 91) that execute game processing programs ("computer executable instructions") that are stored in ROM 82 or RAM 83 (for the server) and in ROM 92 or RAM 93 (for the station). Kido at [0193]. Therefore, to the extent the preamble is limiting, Kido discloses this element.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

b. [Element 1] receiving first bet information for a first bet from a first player device of a first player on a spin of a roulette wheel, the first bet information corresponding to at least a first position on the roulette wheel;

207. Kido discloses this element for the reasons described for Claim 1, Element 4.

c. [Element 2] receiving second bet information for a second bet from a second player device of a second player on the spin of the roulette wheel, the second bet information corresponding to at least a second position on the roulette wheel that is different from the first position;

208. Kido discloses this element for the reasons described for Claim 1, Element 5.

d. [Element 3] determining that the roulette wheel and a ball on the roulette wheel have been spun for the spin of the roulette wheel;

209. Kido discloses this element for the reasons described for Claim 1, Element 6.

e. [Element 4] randomly selecting a first selected position on the roulette wheel for the spin of the roulette wheel prior to the ball falling into a position on the roulette wheel, wherein the first selected position is the same as the first position;

210. Kido discloses this element for the reasons described for Claim 1, Element 7.

f. [Element 5] determining a first payout for first position and a second payout for the second position for the spin of the roulette wheel, wherein the first payout is higher than the second payout;

211. Kido discloses this element for the reasons described for Claim 1, Element 8.

g. [Element 6] determining that the ball has fallen in the first position for the spin of the roulette wheel; and

212. Kido discloses this element for the reasons described for Claim 1, Element 9.

h. [Element 7] indicating that the first player is to be paid at the first payout for the spin of the roulette wheel.

213. Kido discloses this element for the reasons described for Claim 1, Element 10.

12. Claim 17: The non-transitory computer-readable medium of claim 15, wherein the method further comprises indicating the first selected position on a display adjacent to the roulette wheel.

214. Kido discloses this element for the reasons described for Claim 4.

13. Claim 18: The non-transitory computer-readable medium of claim 17, wherein the method further comprises comprising causing a lightning visual effect to be presented when in connection with indicating the first selected position.

215. Kido discloses this element for the reasons described for Claim 5.

14. Claim 20: The non-transitory computer-readable medium of claim 15, wherein the method further comprises:

a. randomly selecting a second selected position on the roulette wheel; and

216. Kido discloses this element for the reasons described for Claim 7, Element 1.

b. determining a payout for the second selected position that is different than the payout for the first position.

217. Kido discloses this element for the reasons described for Claim 7, Element 2.

B. Ground 2: Kido and Yee

218. In my opinion, as set forth below, claims 2, 9, and 16 of the '024 patent are unpatentable as being obvious over the combination of Kido and Yee.

1. Motivation to combine Kido and Yee

219. In my opinion, a POSITA would have looked to both Kido and Yee when considering roulette gaming machines. Both Kido and Yee are in the same field of endeavor: they are both directed toward roulette gaming machines and variations of roulette involving a comparison between a randomly generated number with a number generated by a spin of a roulette wheel. Kido and Yee Abstracts. A POSITA would have understood that a number generated by a spin of a roulette wheel *is* a randomly generated number, and in view of the numerous prior art embodiments of the purported innovation in the challenged patents, a

POSITA would have naturally looked to other examples or variations of those embodiments when considering roulette gaming machines and variations of roulette. Kido and Yee also both teach the benefits of increasing a player's desire to play, such as through increased payouts. Kido at [0007]-[0008], Yee at 1:21-26. Kido and Yee also both relate to computerized roulette systems having an enhanced payout feature that is based on a randomly selected number. In addition, a POSITA 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.

220. A POSITA would have been motivated to incorporate into Kido's system Yee's disclosure of imaging sensors, including cameras, that are "configured to capture information from [a] physical roulette wheel." Yee at 21:42-44. A POSITA would have understood that the use of such imaging sensors in Kido would advantageously provide a number of functions, including capturing "video recordings of each wheel spin" (Yee at 20:12-14), as would be useful for historical purposes (e.g., keeping a record of each spin for after-the-fact review), and for determining whether the wheel has been spun (or is currently spinning) and winning numbers.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

2. Claim 2: The system of claim 1, further comprising a wheel sensor that is coupled to the hardware processor and that enables the hardware processor to determine that the roulette wheel has been spun.

221. Kido discloses that "RAM 83 temporarily stores the bet information of chips to be supplied from the respective stations 4, a win number of the roulette unit 3 determined by a sensor … data relating to a result of a process that is executed by the server control CPU 81, and the like." Kido at [0156].

222. Yee discloses "using sensors in the physical roulette wheel 406 or using imaging sensors configured to capture information from the physical roulette wheel 406." Yee at 21:42-44. Yee also discloses "a camera (not shown) may be trained on the wheel 406 and video recordings of each wheel spin may be captured and displayed on the display 430." Yee at 20:12-14.

223. Together, therefore, Kido and Yee render obvious that a camera or other sensing device may capture information from a roulette wheel, including information about whether the wheel has been spun (or is currently spinning) and, if an outcome has been generated by a ball in the wheel (by falling into a pocket), what that number is.

224. I further note that, unlike the language of claims 1 and 3 which relate to both "the roulette wheel and the ball have been spun," claim 2 relates only to whether the "roulette wheel has been spun." In my opinion, a POSITA would have found this limitation by itself to be meaningless since a roulette wheel, by itself,

cannot determine an outcome. Further, nothing in the challenged patents relates to the spinning of a roulette wheel without also considering whether a ball has been released or has come to rest in a position (pocket) in the wheel.

3. Claim 9: The method of claim 8, further comprising using a wheel sensor that is coupled to the hardware processor to determine that the roulette wheel has been spun.

225. The combination of Kido and Yee renders obvious claim 9 for the reasons explained above for claim 2.

4. Claim 16: The non-transitory computer-readable medium of claim 15, wherein the method further comprises using a wheel sensor that is coupled to the hardware processor to determine that the roulette wheel has been spun.

226. The combination of Kido and Yee renders obvious claim 16 for the reasons explained above for claim 2.

C. Ground 3: Baron

227. In my opinion, as set forth below, claims 1-5, 7-12, 14-18, and 20 of the ’024 patent are unpatentable as being anticipated by Baron, or obvious in view of the disclosures of Baron.

1. Claim 1

a. [Preamble] A system for wagering, comprising:

228. To the extent the preamble is limiting, Baron discloses a system for wagering. Baron discloses that “Fig. 6 is a perspective view of an illustrative table 400 configured for implementation of embodiments of wagering games according

to the present disclosure." Baron at [0078]. "The table 400 may include a plurality of player stations 412 (which) may include a separate player interface 416 (that) may be coupled respectively to its own local game processor 414." Baron at [0080]. Further, "a central game processor 428 … 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." Baron at [0080]. Therefore, Baron's table 14 is a "system for wagering" as recited in the preamble of claim 1. In addition, the "memory" in Baron is a computer-readable medium containing instructions to perform a method for wagering. Baron at [0080].

229. Baron also discloses "methods of administering wagering games for casinos and other gaming establishments, and related systems and apparatuses." Baron at [0001], *see also* Baron at Fig. 6, Fig. 9, Fig. 11, [0016], [0019]-[0020] (both "a schematic block diagram of a gaming system for implementing embodiments of wagering games"). Further, Baron at Fig. 1 is "a flowchart diagram of a method of administering a wagering game." Baron at [0011]. Baron is also titled "Methods of Administering Wagering Games of Roulette with Progressive Side Wagers." Baron at Title.

230. Therefore Baron discloses this element.

b. [Element 1] a roulette wheel;

231. Baron discloses "a roulette wheel 406 mounted into the surface 404" of the table 400. Baron at [0078], Fig. 6; *see also* Baron at [0027], [0040], Figs. 4, 7. Therefore, Baron discloses this element.

c. [Element 2] a ball configured to be used in the roulette wheel;

232. Baron also discloses "a spinning, physical roulette wheel 406 that may be configured to receive a ball or other indicator, which may come to rest in individual, separate sections with numbers and colors therein to generate a random outcome for a round of roulette." Baron at [0082], Fig. 6; *see also* Baron at [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]. Therefore, Baron discloses this element.

d. [Element 3] a hardware processor configured to:

233. As described for the Preamble, Baron discloses that table 400 may include "a combination of individual local game processors 414 and the central game processor 428." Baron at [0080]. Baron explains that "[e]ach 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." Baron at [0080]. Baron also explains that certain embodiments use "a combination of individual local game processors 414 and the central game processor 428," and that "[e]ach 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." Baron at [0080]. The central game processor 428 and local game processors 414 disclose the claimed "at least one hardware processor." As discussed in more detail below, the game processors 414, 428 are collectively configured to implement each of the steps of this claim.

234. Baron further discloses that "Fig. 11 is a simplified block diagram showing elements of computing devices that may be used in systems and apparatuses of this disclosure" and goes on to say that "the processors 642 may be configured as a general-purpose processor such as a microprocessor (or) any processor, controller, microcontroller, or state machine (and) may also be implemented as a combination of computing devices, such as a combination of a DSP and a microprocessor, a plurality of microprocessors, one or more microprocessors in conjunction with a DSP core, or any other such configuration." Baron at [0120]-[0122], Fig. 11 ("Processor(s) 642"). A "general-purpose processor," "microprocessor," and "microcontroller," as well as "processor(s)" depicted on a block diagram of elements of computing devices, are all disclosures of at least one "hardware processor." Therefore, Baron discloses this element

e. [Element 4] receive first bet information for a first bet from a first player device of a first player on a spin of the roulette wheel, the first bet information corresponding to at least a first position on the roulette wheel;

235. Baron discloses that the player interface 416 "may be used for accepting wagers." Baron at [0080]. Baron describes a method step of "accepting a wager from a player on a game of roulette and receiving indication of a predicted roulette outcome, as indicated at operation 102. … The predicted outcome may be, for example, a number from zero to thirty-six or from zero to thirty-six and double zero." Baron at [0028], Fig. 1 numeral 102. Therefore, Baron discloses that a player may make straight up bets on a roulette spin, i.e., bets on a first position on the roulette wheel.

236. U.S. Pat. No. 6,659,866 (Frost) is incorporated into Baron and also discloses making straight up bets in roulette using a player graphical user interface. Baron at [0084]. For example, Frost discloses that its "ORPHANS" bet is "a five piece wager with one piece each on: 1 straight up…" Frost at 6:22-24. Frost also discloses that "two $5 chips, two $2 chips and a $1 chips are placed on a single location on the layout." Frost at 5:33-35. Therefore, Frost discloses that a player may choose to wager on a position, such as 1 straight up, with one or more chips.

237. Both Baron and Frost disclose that the player's bet is "on a spin of the roulette wheel." Baron discloses that "the plurality of roulette outcomes (as

indicated at operation 106 of Fig. 1) may be generated in a single round of the wagering game" and "may be generated by introducing a physical outcome identifier (e.g., a ball) into a physical spinning roulette wheel and permitting the outcome identifier to come to rest on a roulette outcome" or "may be generated utilizing a random number generator." Baron at [0039]-[0041]. Since the wager is resolved by "comparing each roulette outcome to the predicted roulette outcome" (Fig. 1, numeral 108) (i.e., the claimed first position wagered upon), the wager is "on a spin of the roulette wheel" as claimed. *See also* Baron at [0042] ("The bonus wager may be resolved by comparing each roulette outcome to the predicted roulette outcome, as indicated at operation 108.") Similarly, Frost discloses "in roulette, players ***bet on*** where they think a ball, spun within a wheel divided into thirty seven regions marked from 0-36, will land.[42] After bets are placed, ***the wheel is spun*** and the ball is dropped onto the spinning wheel and is allowed to move freely until coming to rest in one of the thirty seven regions of the wheel. Those players who ***bet on*** the correct number win, while those who did not, lose." Frost at 1:33-40, emphasis added.

238. Therefore, Baron discloses this element.

[42] Frost is describing European roulette, without the 38th position numbered 00.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

f. [Element 5] receive second bet information for a second bet from a second player device of a second player on the spin of the roulette wheel, the second bet information corresponding to at least a second position on the roulette wheel that is different from the first position;

239. As described for Elements 3 and 4 above, Baron discloses multiple player stations, each with its own player GUI that players may use to make wagers including straight up bets. It is therefore inherent in the disclosure of Baron that two players can make their own different wagers, each via their own GUI, including different straight up bets (i.e., a second position that is different from the bet placed on the first position by the first player) on the same spin of the roulette wheel.

240. The Frost reference incorporated into Baron likewise discloses that one player can bet on the correct number and win, while another player can lose, on the same spin of the roulette wheel. Frost at 1:33-40. Therefore, Baron including Frost discloses that a second player may make a second straight up bet different from the first player's straight up bet, both bets on the same spin of the roulette wheel.

241. I understand that Patent Owner has suggested that Baron's disclosures are inapt because the player must place both a conventional and non-conventional wager. This is incorrect: Baron states that all of its wagers "may be optional."

Baron at [0028], [0038]. There is no requirement in Baron that the player place both a conventional and non-conventional wager eligible for an increased payout.

242. Therefore, for the reasons described above and for Element 4, Baron discloses this element.

g. [Element 6] determine that the roulette wheel and the ball have been spun for the spin of the roulette wheel;

243. As described for Elements 1 and 2, Baron discloses a roulette wheel and ball. As disclosed for Element 4, Baron discloses generating a roulette outcome using a wheel and ball. Baron at [0039]-[0040]. Baron also discloses that the roulette outcomes may be "automatically detected (e.g., using one or more sensors)." Baron at [0040]. The ability to automatically detect "roulette outcomes" as disclosed in Baron would include using the one or more processors (*i.e.*, central game processor 428, local game processors 414) to determine that the roulette wheel and the ball have been spun. The one or more processors would not be able to automatically detect where the ball lands on a spin if it had not already determined that the wheel and ball had been spun.

244. The '024 patent describes a "wheel sensor 104 [that] can detect the spinning of the wheel and the position in which the ball falls" and states that the "sensor can be implemented in any suitable manner." '024 patent at 3:09-10. Since the sensor(s) in the '024 patent "can be implemented in any suitable

manner," a POSITA would have understood the sensors in Baron as being able to determine that the wheel and ball have been spun.

245. Baron also discloses that "when an action related to … generating roulette outcomes … is described herein, and such description includes a player or croupier taking the action, … (and) the reception or detection of such an action in an electronic form where player and croupier choices, selections, or other actions are received at an electronic interface. … By way of a further example, if generating a roulette outcome is described herein, the description includes (but is not limited to) the following: introduction of a physical ball or other outcome identifier into a spinning, physical roulette wheel and permitting the ball to come to rest on a roulette outcome." Baron at [0027]. Thus, Baron discloses that when the croupier takes an action such as the action of introduction of a physical ball into a spinning roulette wheel, that action may be detected in an electronic form and received at an electronic interface by a processor.

246. Baron discloses several electronic interfaces, including player interface 416 and croupier interface 418, which are taught to include processors such as described for Element 3. Therefore Baron discloses that its processor(s) may determine that the roulette wheel and ball have been spun.

247. Baron also discloses "sensors in the physical roulette wheel 406 or [] imaging sensors configured to capture information from the physical roulette

wheel." Baron also incorporates "known image extraction techniques" from U.S. Pat. No. 7,901,285 to Tran, which discloses using cameras to monitor a game, receive image information, and process that information to extract game event information. Tran at 2:16-34. Tran also discloses (and claims) "detecting by the computing device a start of a game within the game environment" and that its disclosure applies to roulette. Baron at [0111], Tran at 4:16-17 and claim 1. Since the start of a spin in roulette is when the ball has been introduced into the wheel, Baron including Tran discloses capturing this information using imaging sensors and therefore determining that the ball and wheel have been spun. Further, to the extent it is found that Baron including Tran does not disclose using an imaging sensor to determine that the ball and wheel have been spun, a POSITA would have been motivated in view of Baron including Tran to use the cameras disclosed by both references to perform multiple functions, including determining that a ball and wheel have been spun as well as determining the outcome, so as to eliminate system complexity and reduce costs. Baron at [0040].

248. The determination that the wheel and ball have been spun is "for the spin of the roulette wheel" as claimed. In the flowchart of Fig. 1, the ball and wheel are spun at step 106 (Baron at [0039]-[0041]), and the subsequent steps of the process are then performed, including comparing the roulette outcomes to the predicted roulette outcome and making payouts to players. Baron at [0028],

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

[0039], [0042]-[0045]. The processor's determination that the wheel and ball have been spun thus occurs for a spin of the wheel, as claimed.

249. Further, when players make wagers specifically ***on a spin*** of a roulette wheel as claimed (Element 4: "a first bet ***on a spin*** of the roulette wheel" and Element 5: "a second bet ***on the spin*** of the roulette wheel"), it is tautological that spinning the roulette wheel and ball to produce an outcome that resolves those wagers is done "for the spin of the roulette wheel."[43] This is confirmed by Frost, incorporated into Baron, as described for Element 4.

250. Therefore Baron discloses this element.

h. [Element 7] randomly select a first selected position on the roulette wheel for the spin of the roulette wheel prior to the ball falling into a position on the roulette wheel, wherein the first selected position is the same as the first position;

251. Baron discloses generating a plurality of roulette outcomes "in a single round of the wagering game," and that "each roulette outcome may be randomized independently from the other roulette outcomes." Baron at [0028], [0039]-[0041]. One of the roulette outcomes "may be generated by introducing a physical outcome identifier (e.g., a ball) into a physical spinning roulette wheel and permitting the outcome identifier to come to rest on a roulette outcome" and

[43] As described herein, some roulette wagers take more than one spin to resolve, therefore it is possible that a roulette number generated ***by*** an earlier spin of the wheel could also be used ***for*** a later spin as well.

another "may be generated utilizing a random number generator (e.g., operated by a control circuit)." Baron at [0039]-[0041]. These outcomes generated by the random number generator 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. Baron at [0041]. Figure 3 of Baron, which is a display layout for a "method of administering a wagering game," (Baron at [0013]), contains an outcome display area 124 that shows one primary outcome (24) and two ancillary outcomes (also 24), all three of which are for a position on the roulette wheel (24). Baron at Fig. 3. Baron thus discloses a processor electronically generating at least one roulette outcome using a random number generator, i.e., "randomly select[ing] a first selected position on the roulette wheel for the spin of the roulette wheel."

252. The randomly generated outcomes in Baron are for a spin of the roulette wheel. Baron explains that the plurality of roulette outcomes are "generated in a single round of the wagering game." Baron at [0039], [0028]. Baron's discussion of Figure 3 states that the "randomized roulette outcomes [are] for the current round of play." Baron at [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. Baron at Fig. 1. Therefore Baron discloses generating these roulette outcomes "for the spin of the roulette wheel."

253. It is inherent that if two roulette outcomes are generated in a single round, one using a computerized RNG and another using a physical ball and wheel, that the RNG-generated outcome is generated either before or after the ball being used to generate the physical outcome falls into an outcome position in the wheel. Therefore, Baron inherently discloses both possibilities.

254. Baron also discloses that a processor may automatically generate the roulette outcomes "randomly at the close of wagering or at the beginning of a new round of play." Baron at [0088]. As described herein, wagering can close at a physical roulette table after the ball has been released into the wheel, but before the ball has come to rest in a pocket (fallen into an outcome position). At the beginning of a new round of play is also before the ball has fallen into an outcome position. Therefore, Baron discloses a processor randomly generating a roulette outcome ("first selected position on the roulette wheel") prior to the ball falling into the outcome position.

255. Furthermore, a POSITA would have understood that a physical ball takes several seconds to revolve around and fall into an outcome position on a roulette wheel, while a computer takes mere milliseconds to generate a roulette outcome with an RNG. Therefore, whenever the process to generate both outcomes starts at the same time (e.g., per Baron at [0039]-[0041] or [0088]), the

RNG-generated number is necessarily selected by the processor before the ball falls into a position on the physical wheel.

256. Baron discloses that its randomly generated outcome, i.e., the claimed "first selected position," is the same as the predicted roulette outcome, i.e., the claimed "first position." Specifically, Baron discloses "comparing each roulette outcome to the predicted roulette outcome" and paying a payout when "at least one roulette outcome is the same as the predicted roulette outcome." Baron at [0042]-[0043]. Since one of the roulette outcomes is the RNG-generated outcome described in this element (the "first selected position"), and the predicted roulette outcome is the position wagered upon in Element 4 (the "first position"), Baron discloses that the first selected position is the same as the first position. *See also* Baron at Fig. 3 (providing for increased payouts of 7:1, 100:1, and POT as the number of randomly generated roulette outcomes that match the predicted roulette outcome (bet) increase); Baron at [0045].

Baron's disclosure at [0088] cited for this element refers to table 470 (see Fig. 7), while the earlier-cited disclosures at [0080]-[0084] refer to table 400 (see Fig. 6), however Baron also teaches that its embodiments may be combined while still being within the scope of its disclosure. Baron at [0145]. To the extent it is argued that one specific embodiment in Baron does not disclose all the claim elements, it is nevertheless my opinion that it would have been obvious to a

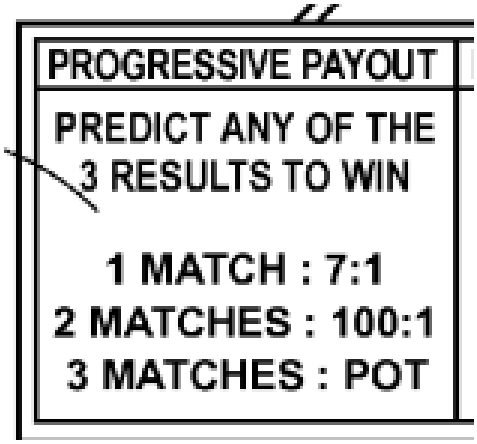
POSITA combine the disclosures of Baron with itself, since Baron expressly teaches as much. Further, to the extent a POSITA would need motivation to do so, Baron provides it. Baron at [0002]. (explaining "players are generally open to, and sometimes specifically seek out, new and more interesting ways to play roulette, particularly when the reward for a winning outcome at the end of a round of play … may be enhanced"). A POSITA would have understood that Baron's disclosures of (a) electronically generating random numbers at the close of wagering or at the beginning of a round of play, (b) comparing those electronically generated numbers to the number generated by a spin of a physical roulette wheel and ball, and (c) providing an enhanced reward when they match, is precisely the sort of "new and more interesting ways to play roulette" envisioned by Baron. Baron's approach as described herein adds an additional element of randomness to gameplay and variability in payouts compared to the rules of traditional roulette. A POSITA would have understood that new casino games tend to be more successful when they are exciting and interesting to players (as stated in Baron), and providing additional sources of award variability including the possibility of larger awards (such as 100:1 or a progressive jackpot in roulette when the largest payout in the traditional game is only 35:1) is a known way to achieve that success.

257. Therefore, Baron discloses this element.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

i. [Element 8] determine a first payout for first position and a second payout for the second position for the spin of the roulette wheel, wherein the first payout is higher than the second payout;

258. As described for Element 7, Baron discloses that a roulette outcome may be generated by a random number generator as part of the process of generating the plurality of roulette outcomes in a single round of the wagering game, including "as a specific, nonlimiting example, the total number of roulette outcomes generated in a given round may be three." Baron at [0039]-[0041]. Baron explains that "an amount of the payout may increase nonlinearly as a number of roulette outcomes matching the predicted outcome increases, as further indicated at operation 110." Baron at [0045]. By way of example, Baron discloses that "the amount of the payout may be 7:1 when one of the plurality of generated outcomes is the same as one of the predicted outcomes" and "100:1 when (e.g., two roulette outcomes) are the same as one of the predicted outcomes." Baron at [0045], Fig. 3.



Baron at Fig. 3 (excerpt)

259. As described for Elements 4 and 5, two different players can make two different straight up bets in the system of Baron. Using Baron's example of three generated roulette outcomes and the payouts disclosed in Figure 3, where the first player's bet on a first position matched three of the generated roulette outcomes, the second player's bet on a second, different position necessarily matches none of the generated roulette outcomes (because there are only three in this specific example in Baron). Specifically, so as to put numbers on this example, Baron's Figure 3 inherently contemplates that three generated roulette outcomes may be (a) a physical wheel outcome of 24, (b) a first electronically-generated outcome of 24, and (c) a second electronically-generated outcome of 24. Thus, based on the paytable above, if the first player had wagered on 24 as the first position, the first player's payout would be determined to be POT. Similarly, if the second player had wagered on 10 as the second position, the second player's payout would be determined to be 0. POT is greater than (higher than) 0, therefore Baron discloses "determine[ing] a first payout for the first position and a second payout for the second position … wherein the first payout is higher than the second payout." Baron also discloses "conventional roulette wagers" such as "straight wager" and "split wager," and a POSITA would have known that the payout for a conventional straight wager, 35:1, was higher than the payout for a conventional

split wager, 17:1, also as discussed in the background section. Baron at [0028]-[0029], [0038], [0056]. Therefore, Baron's disclosure of conventional roulette wagers, some of which are known to have higher payouts than others, is inherent disclosure that a first payout can be higher than a second payout.

260. As a second example, where the first player wagered on 24 and the second player wagered on 10, the system of Baron contemplates generating (a) a physical wheel outcome of 24, (b) a first electronically-generated outcome of 24, and (c) a second electronically generated outcome of 10. In that case, based on the paytable disclosed by Baron's Figure 3, the first player would win 100:1, a higher amount than the second player's winnings of 7:1. This too is an example of a first payout being higher than (greater than) the second payout.

261. Determining the first and second payouts in Baron is "for the spin of the roulette wheel." Baron discloses that a plurality of roulette outcomes can be generated "in a single round of the wagering game." Baron at [0028], [0039]. Those random numbers can be generated via a "a spinning, physical roulette wheel 406" that receives a ball in a numbered section as disclosed in table 400 in Figure 6 (Baron at [0082]), or they can be generated via a random number generator (Baron at [0041]). Regardless of which way they are generated, they are generated for a "single round" of roulette, (Baron at [0028], [0039]-[0040]) i.e., for the spin of the roulette wheel. These roulette outcomes are then compared to the player's

predicted roulette outcome to determine whether the player wins, and if so, how much. Baron at [0028], [0039], [0042], [0045]. Therefore, the first and second payout are for "[a] spin of the roulette wheel."

262. Furthermore, and as described for Element 3, Baron's table 400 relies on processors "operably coupled to memory including one or more programs related to the rules of game play at the table 400." Baron at [0080]. Baron also discloses that "the term 'wager' includes any form of wagering value, including … virtual representations of money in the form of electronic authorizations of a transfer of money … digital representations of chips, numerical quantities of money," etc. Baron at [0026]. Further, Baron discloses that "when an action related to … ***making payouts*** … is described herein … the results of the action may be computer generated." Baron at [0027], emphasis added. Taken together, Baron thus discloses that the claimed processor may evaluate wager outcomes based on the players' wagers as compared with the generated roulette outcomes and calculate ("determine") the payouts for the first and second players.

263. Alternatively, the first player's bet on a first position may match two of the generated roulette outcomes and the second player's bet on a second, different position may not match any (that is, the second player's bet loses). In the example above of three generated outcomes being 24, 24, and 10, if the first player had wagered on 24 and the second player wagered on 6, the payout to the first

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

player would be determined to be 100:1, greater than the payout to the second player of zero.

264. Therefore Baron discloses this element.

265. I understand that Patent Owner has suggested that Baron's disclosures are inapt because it discusses making a payout from a "progressive pot." This is incorrect. As a first matter, the applied teaching of Baron herein relates to fixed payouts (e.g., 100:1 and 7:1 are both fixed payouts), not progressive ones, and Baron does not require multiple spins to payout the progressive pot. Second, Baron expressly discloses that the house bank can cover the fixed payouts: "the progressive pot may be seeded from the rake account of the house" in an amount "at least as great as the maximum fixed odds payout awardable from the progressive pot for any winning scenario. For example, the amount seeded to the progressive pot may be greater than the number of participating players multiplied by the greatest fixed odds payout winnable from the progressive pot." Baron at [0047]. Thus, Baron discloses that the fixed payouts depicted in Fig. 3 can be banked by the house, just like every other traditional roulette wager. Third, the claim language does not recite or relate to progressive payouts or fixed payouts, only that a first payout is higher than a second payout, and Baron discloses that relationship. Fourth, nothing in the specification of the challenged patents discloses progressive payouts or relates to any purported distinction between

progressive and fixed payouts. Therefore, any suggestion that the challenged claims should be limited in this way is not supported by the specification.

j. [Element 9] determine that the ball has fallen in the first position for the spin of the roulette wheel; and

266. As described for Elements 6, 7, and 8, Baron discloses generating roulette outcomes, including by using a physical ball and roulette wheel, in a single round of the wagering game. Specifically, Baron discloses "a physical outcome identifier (e.g., a ball)" and "the outcome identifier may come to rest on a roulette outcome, and the roulette outcome may be … automatically detected (e.g., using one or more sensors) and conveyed to a control circuit." Baron at [0040]. The roulette outcomes are generated "in a single round of the wagering game." Baron at [0028], [0039]. Therefore, Baron discloses a processor configured to determine that the ball has fallen into a position for the spin of the roulette wheel.

267. Baron also discloses "comparing each roulette outcome to the predicted roulette outcome" and "each roulette outcome generated in a given round of play may be compared to the roulette outcome or roulette outcomes predicted for that round … by electronically comparing detected (e.g., using sensors) or entered (e.g., utilizing a croupier interface) roulette outcomes stored in memory utilizing a control circuit." Baron at [0042]. As described for Element 4, Baron discloses a first player making a straight up bet on a first position, which is a predicted roulette outcome. Baron expressly discloses a scenario "when one

generated roulette outcome matches one of the predicted roulette outcomes" and "when two generated roulette outcomes match each other and one of the predicted roulette outcomes." Baron at [0043]. Therefore, Baron discloses determining that the ball has fallen into the first position (the position wagered upon/predicted by the first player) for the spin of the roulette wheel.

268. Therefore, Baron discloses this element.

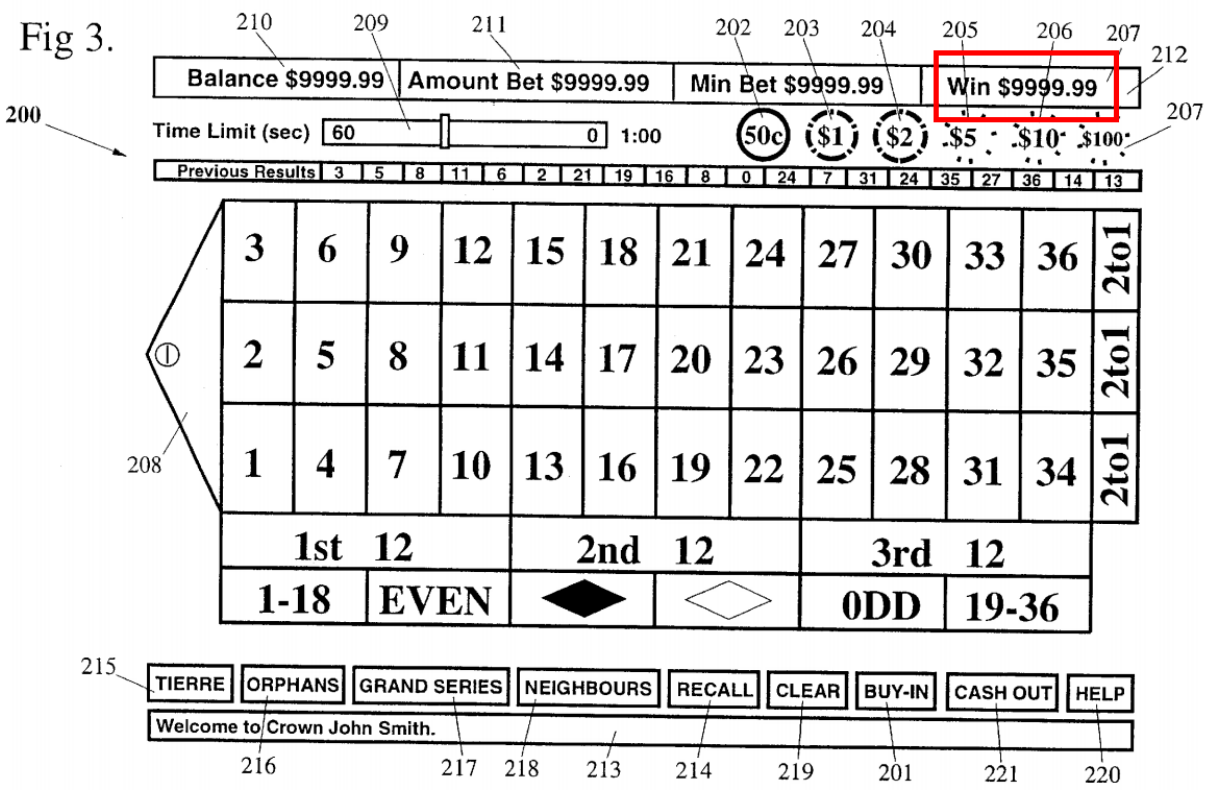
k. [Element 10] indicating that the first player is to be paid at the first payout for the spin of the roulette wheel.

269. Baron discloses an "electronic display" which can "include a progressive pay table area 122, which may be, for example, a section of a display electronically showing the potential payouts from the bonus wager." Baron at [0058], Figure 3; *see also* [0059], [0060], [0067], [0069]. Baron further states that the payout is made if the predicted roulette outcome matches at least one randomly generated roulette outcome, all of which are randomly generated in a single round of the game, i.e., for a spin of the roulette wheel. Baron at [0028], [0039], [0042], [0048]. Thus, Baron explains that the first player is to be paid at the first payout "for the spin of the roulette wheel."

270. Further, Baron discloses indicating the first payout by "crediting a player account with funds from the game pot" or where "wagers and balance adjustments during game play may be performed using virtual chips." Baron at

[0046], [0082]. Further, Baron discloses "the result of [an action related to making payouts] may be computer generated and may be displayed on a live or virtual table or electronic display." Baron at [0027]. Baron discloses that one such electronic display is "player interface 416, which may be used for accepting wagers and displaying game information (e.g., … game outcomes)." Baron at [0080]. Because Baron's player interface 416 is controlled by one or more processors, Baron discloses a processor configured to indicate that the first player is to be paid at the first payout for the spin of the roulette wheel.

271. Furthermore, the Frost reference incorporated into Baron discloses a player interface that displays win amounts, thereby indicating "that the first player is to be paid":



Frost, Fig. 3, highlighted

272. Therefore Baron discloses this element.

273. For the reasons herein, it is my opinion that Baron discloses each element of claim 1 of the ’024 patent.

274. To the extent it is found that any element is not disclosed expressly or inherently, it is my opinion that Baron renders obvious such element for the reasons expressed herein.

2. Claim 2: The system of claim 1, further comprising a wheel sensor that is coupled to the hardware processor and that

enables the hardware processor to determine that the roulette wheel has been spun.

275. Baron discloses "using sensors in the physical roulette wheel 406 or using imaging sensors configured to capture information from the physical roulette wheel 406." Baron at [0088]. Baron also discloses "The camera 670 may be trained on … roulette wheel or wheels 684" and "known image extraction techniques may be used to obtain roulette outcome from the images of the roulette wheel or wheels 684." Baron at [0111]. A POSITA would have understood using the sensors disclosed in Baron to determine that the roulette wheel had been spun would be an ordinary and common application of known technology to achieve a desired outcome, i.e., playing roulette. Further, a POSITA would have been motivated to use the sensors disclosed in Baron to provide functionality useful to the goal, e.g., determining that the roulette wheel has been spun, because this step is a necessary prerequisite to playing a roulette game and using sensors would have made it easier to perform this step and thus easier to play roulette. Moreover, general background knowledge of the art would have supported a POSITA's decision to use these sensors in this way. As example, Baron discloses that "an example of suitable image extraction software is disclosed in U.S. Pat. No. 7,901,285, issued Mar. 8, 2011, to Tran et al., the disclosure of which is incorporated in this disclosure in its entirety by reference." Baron at [0111].

276. The Tran reference discloses that "examples of casino games that can be monitored include blackjack [and] roulette. For purposes of discussion, the present invention will be described with reference to a blackjack game … Relevant operator actions in blackjack may include dealing cards, dispersing winnings, and other actions." Tran at 4:16:23. Tran further discloses a game monitoring system including one or more cameras to monitor player and operator (dealer) actions, including "determine[ing] whether a new game has begun." Tran at 7:19-30, 7:42-63. A POSITA would have understood that one dealer action in roulette is releasing a roulette ball into the wheel to start a spin.

277. Therefore, Baron including the Tran reference discloses that a camera or other sensing device may capture information dealer actions from a roulette wheel, including information about whether the wheel has been spun (or is currently spinning) and, if an outcome has been generated by a ball in the wheel by falling into a pocket, what that number is.

278. I further note that, unlike the language of claims 1 and 3 which relate to both "the roulette wheel and the ball have been spun," claim 2 relates only to whether the "roulette wheel has been spun." In my opinion, a POSITA would have found this limitation by itself to be meaningless since a roulette wheel, by itself, cannot determine an outcome. Further, nothing in the challenged patents relates to

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

the spinning of a roulette wheel without also considering whether a ball has been released or has come to rest in a position (pocket) in the wheel.

3. Claim 3: The system of claim 1, wherein the hardware processor is further configured to close bets when the roulette wheel and the ball are determined to have been spun.

279. Baron discloses that some actions may be accomplished by an in-person croupier while "other actions performed in connection with administering a wagering game using the table 470 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." Baron at [0088]. Baron also discloses that "when an action related to accepting wagers, making payouts, generating roulette outcomes, accepting selection of roulette outcomes, or other actions associated with a player or a croupier is described herein, and such description includes a player or a croupier taking the actions, the results of the action may be computer generated … this further includes the results of a virtual croupier and virtual players, where the actions described are actually generated by a computer." Baron at [0027].

280. Baron describes two such game actions, one is "the croupier introducing [a ball] into the spinning physical roulette wheel" and another is "a croupier indicating that wagering is closed." Baron at [0088]. Those two game actions therefore (a) may either or both be performed by a processor and (b) may

occur in response to each other (in either order). Thus, Baron discloses that a processor may close bets when the wheel and ball have been spun, as described for Element 6 of claim 1.

281. Further, it was standard practice in most casinos at the time of the alleged invention to close bets once the roulette wheel and ball have been spun. Players would place their bets while the dealer calls for bets, the dealer would spin the wheel and throw the ball in the opposite direction, and as the ball travels around the wheel, the dealer would announce "no more bets," signaling that no further bets can be placed or changed. This enabled fairness by preventing players from attempting to place last-moment bets based on the observed behavior of the ball. This conventional practice is well-documented in the prior art. *See, e.g.*, WO 2015/139088 to Witty (EX1027) at 12:1-12 ("[T]he croupier spins the ball in the roulette wheel 104. A short time later the ball in the wheel 104 slows down and the croupier announces 'no more bets', thereby concluding the wager phase."); It was also known to require players to make bets before the wheel and ball have been spun. U.S. Patent Pub. No. 2011/0006477 to Miller (EX1026) at ¶[0448] ("[A] player must place bets before the spin begins."). Therefore Baron discloses this element.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

4. Claim 4: The system of claim 1, further comprising a display adjacent to the roulette wheel that indicates the first selected position.

282. Baron discloses an "electronic display" such as "separate display 430" that "may be used for display of … information regarding the wagering game (including) current round information ... as described previously in connection with FIGS. 2 and 3." Baron at [0079], *see also* [0080], [0083], [0087]. Baron's Fig. 3 discloses a display that indicates the plurality of generated roulette outcomes, including a roulette outcome that corresponds to the first selected position of Element 7 in Claim 1. Insofar as the "primary outcome" depicted in Fig. 3 is the outcome generated via physical ball and wheel, the other two outcomes (when selected by a computerized RNG) are examples of a first selected position:

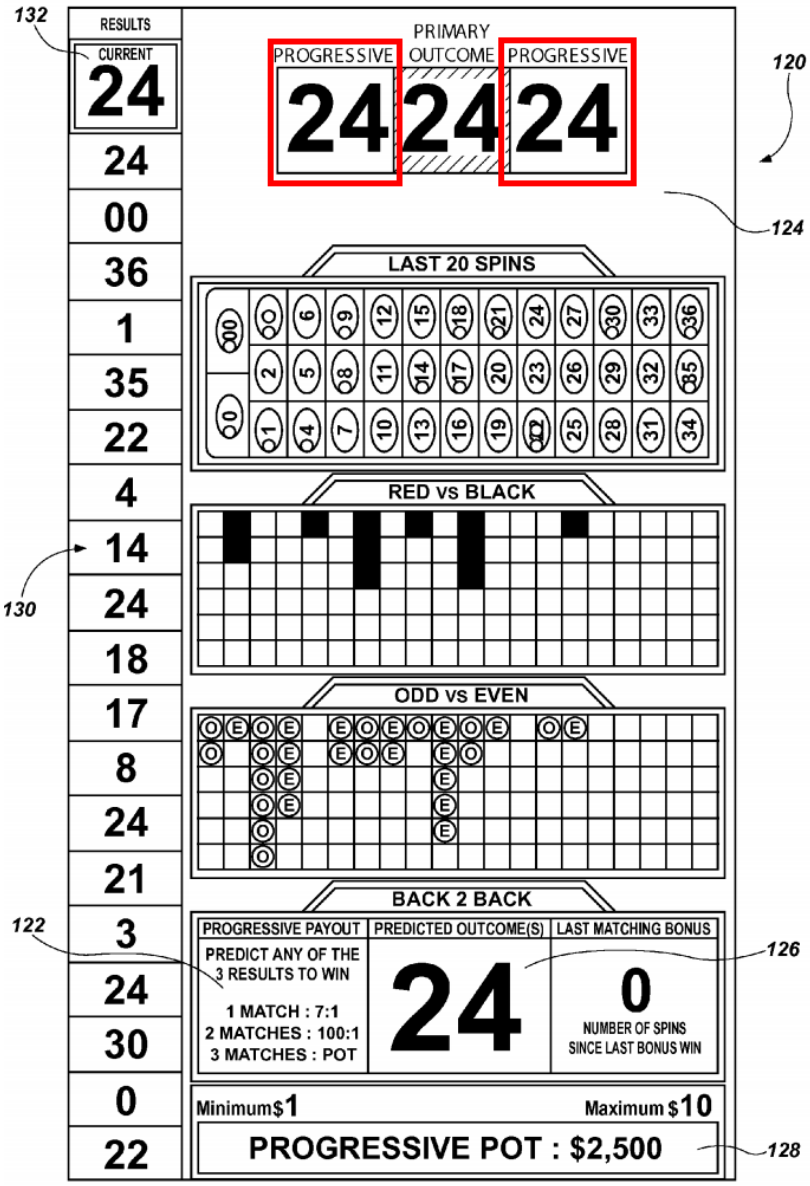


FIG. 3

Baron at Fig. 3, highlighted

283. Baron discloses that the display 430 is adjacent to the roulette wheel, as depicted in Figs. 6 and 7:

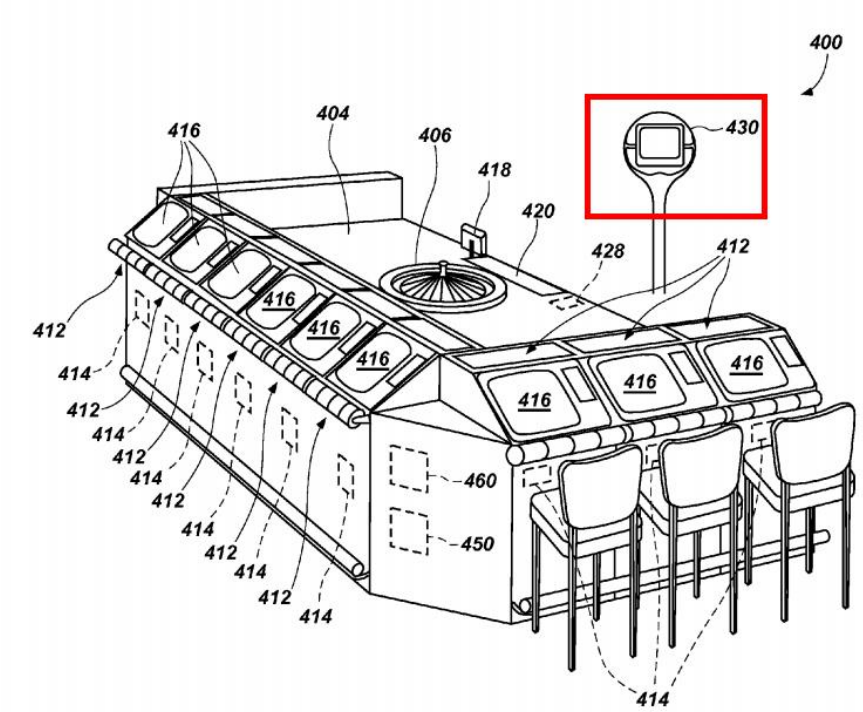


FIG. 6

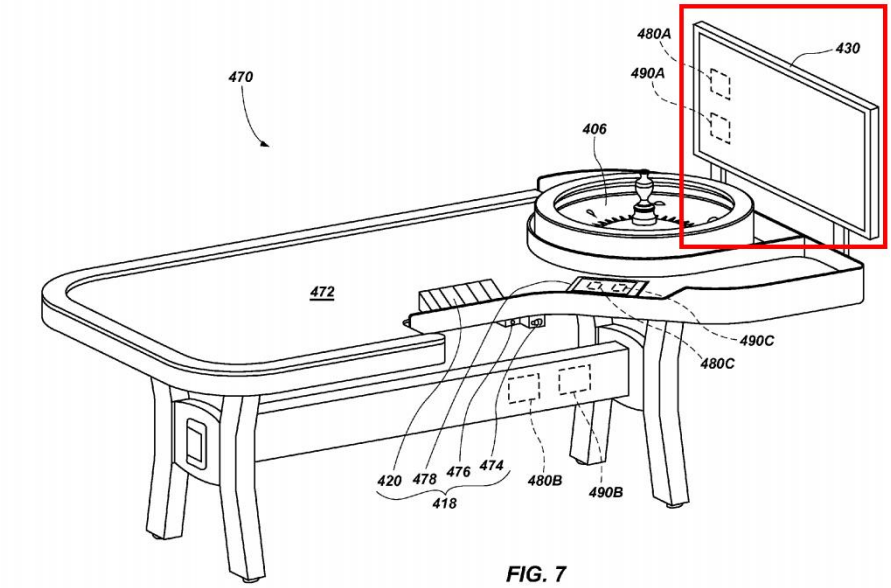


FIG. 7

Baron at Figs. 6 and 7, highlighted

284. Although the claim is not so limited, Baron discloses that a processor may both generate a random roulette outcome (the "first selected position") and

control the display of information on the video display 430, including winning game conditions associated with the random game outcomes (which necessarily includes indicating what those outcomes are). Baron at [0087], [0088].

285. Therefore Baron discloses this element.

5. Claim 5: The system of claim 4, wherein the hardware processor is further configured to cause a lightning visual effect to be presented when in connection with indicating the first selected position.

286. I am informed by counsel that a "lightning visual effect (that is) presented in connection with indicating the first selected position" is non-limiting printed matter.

287. Regardless, in my opinion it would have been obvious to a POSITA to add a lightning visual effect to the indication of the first selected position (randomly generated roulette outcome), for several reasons.

288. First, Baron discloses player interfaces 416 and the common display 430 that can display game information, which includes "a wide variety of other information considered useful to the players." Baron at [0080], [0083]. Baron also discloses and "outcome display area 124" where three, independently randomized roulette outcomes for the current round of play may be displayed." Baron Fig. 3, [0058]. To a POSITA, it would have been an obvious and elementary design choice to display a visual effect in conjunction with the displayed randomized

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

outcomes, including a lightning visual effect, because it would excite the player and induce them to continue playing roulette.

289. Second, Baron incorporates the disclosure of U.S. Pat. Appl. 13/631,598 to Baron and Haushalter by reference. Baron at [0042]. That reference, published April 3, 2014 as U.S. Pat. Pub No. 2014/0094244, names inventors Gabriel Baron (the same inventor as the "Baron" reference) and Todd Haushalter (the sole listed inventor on the challenged patents). The '244 publication discloses a "hot bet field" that displays a message to players, including information relating to a highest ranking roulette event, an animation or other appropriate graphics, or an "attract" message such as "money (bills, coins) falling from the sky, bricks of gold bullion stacking into a pyramid, a treasure chest opening and spilling gold coins, etc." '244 publication at [0045], [0054], [0056]. Further, displaying a message may "convey[] an urgency to players that 24 is currently the 'hot' number." '244 publication at [0055]. A POSITA would therefore have understood that Baron (including the '244 publication) discloses that messages displayed on a display can convey urgency, attraction, animation, and information about game events, or a combination thereof. Given this, a POSITA would have found it obvious to use an animation, such as a lightning visual effect, to indicate or attract a player's attention to information on a display, such as the selection of a first selected position as claimed.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

290. Third, the Frost reference incorporated by Baron discloses that its player terminal may cause a flashing visual effect to be presented in connection with indicating winning positions, and that its player terminals comprise "Pentium PCs" (a POSITA would have known that Pentium was a family of hardware processors sold by Intel). Frost at 4:62-5:3, 5:55-60. A POSITA would have found it obvious to apply a visual effect to the generated roulette numbers as well, to enhance the anticipation of the players.

291. Further, a POSITA would have known about lightning visual effects used in many prior art games, including the Lightning Link slot machine games, as described herein with respect to my analysis of Claim 5 for Ground 1. As described above for Claim 4, Baron discloses a display that indicates the first selected position, and a POSITA would have been motivated to add such a well-known lightning visual effect to the display of "the information described previously in connection with FIGS. 2 and 3 and any other information considered useful to the players, including acceptance of wagers, game outcomes, wager outcomes, payout multipliers, historical game outcome data, and other information, in real-time." Baron at [0085]. For example, a POSITA would have appreciated that adding the well-known lightning visual effect to a real-time display of a randomly generated game outcome such as depicted on Fig. 3 and displayed on display 430 would draw the players' attention to the information, and would serve

as an obvious substitute for (or addition to) a flashing visual effect such as disclosed by Frost, or a message or animation as disclosed by the '244 publication to Baron and Haushalter. Baron at [0083], Frost at 5:55-60, '244 publication at [0054]-[0056].

Therefore, in my opinion, Baron (including Frost) renders this element obvious.

6. Claim 7: The system of claim 1, wherein the hardware processor is further configured to: randomly select a second selected position on the roulette wheel; and determine a payout for the second selected position that is different than the payout for the first position.

292. As described for Elements 7 and 8 of claim 1, Baron discloses that a processor generates a plurality of roulette outcomes, which means Baron discloses randomly selecting a second selected position as well as a first selected position.

293. Baron also discloses that a player whose prediction matches two outcomes (meaning two of the outcomes were the same) such as a first selected position of 24 has a higher payout (a payout of 100:1) than a player whose prediction matches only one of the outcomes such as a second selected position of 10 (a payout of 7:1). Baron at [0045], Fig. 3. The payout of 7:1 for the second selected position of 10 is different than the payout of 100:1 for the first position.

294. Therefore, and for the reasons described for Elements 7 and 8 of claim 1, Baron discloses these elements.

295. To the extent Baron is found not to literally disclose these elements, in my opinion a POSITA would have found it obvious that payouts for different outcomes in a gambling game may be different, as such payout behavior was well-known in the prior art. *See* Section IX.E, *supra*.

7. Claim 8

a. [Preamble] A method for wagering, comprising:

296. As described for Claim 1, Baron discloses a method for wagering. Therefore, to the extent the preamble is limiting, Baron discloses this element.

b. [Element 1] receiving, using a hardware processor, first bet information for a first bet from a first player device of a first player on a spin of a roulette wheel, the first bet information corresponding to at least a first position on the roulette wheel;

297. Baron discloses this element for the reasons described for Claim 1, Element 4.

c. [Element 2] receiving, using the hardware processor, second bet information for a second bet from a second player device of a second player on the spin of the roulette wheel, the second bet information corresponding to at least a second position on the roulette wheel that is different from the first position;

298. Baron discloses this element for the reasons described for Claim 1, Element 5.

d. [Element 3] determining, using the hardware processor, that the roulette wheel and a ball on the roulette wheel have been spun for the spin of the roulette wheel;

299. Baron discloses this element for the reasons described for Claim 1, Element 6.

e. [Element 4] randomly selecting, using the hardware processor, a first selected position on the roulette wheel for the spin of the roulette wheel prior to the ball falling into a position on the roulette wheel, wherein the first selected position is the same as the first position;

300. Baron discloses this element for the reasons described for Claim 1, Element 7.

f. [Element 5] determining, using the hardware processor, a first payout for first position and a second payout for the second position for the spin of the roulette wheel, wherein the first payout is higher than the second payout;

301. Baron discloses this element for the reasons described for Claim 1, Element 8.

g. [Element 6] determining, using the hardware processor, that the ball has fallen in the first position for the spin of the roulette wheel; and

302. Baron discloses this element for the reasons described for Claim 1, Element 9.

h. [Element 7] indicating, using the hardware processor, that the first player is to be paid at the first payout for the spin of the roulette wheel.

303. Baron discloses this element for the reasons described for Claim 1, Element 10.

8. Claim 9: The method of claim 8, further comprising using a wheel sensor that is coupled to the hardware processor to determine that the roulette wheel has been spun.

304. Baron discloses this element for the reasons described for Claim 2.

9. Claim 10: The method of claim 8, further comprising closing bets when the roulette wheel and the ball are determined to have been spun.

305. Baron discloses this element for the reasons described for Claim 3.

10. Claim 11: The method of claim 8, further comprising indicating the first selected position on a display adjacent to the roulette wheel.

306. Baron discloses this element for the reasons described for Claim 4.

11. Claim 12: The method of claim 11, further comprising causing a lightning visual effect to be presented when in connection with indicating the first selected position.

307. Baron discloses this element for the reasons described for Claim 5.

12. Claim 14: The method of claim 8, further comprising: randomly selecting a second selected position on the roulette wheel; and determining a payout for the second selected position that is different than the payout for the first position.

308. Baron discloses these elements for the reasons described for Claim 7.

13. Claim 15

a. [Preamble] A non-transitory computer-readable medium containing computer executable instructions that, when executed by a processor, cause the processor to perform a method for wagering, the method comprising:

309. Baron discloses this element for the reasons described for Claim 1, Preamble. The "memory including one or more programs related to the rules of game play" disclosed in Baron at [0080] is disclosure of this element. Further, Baron discloses "memory 646 [that] may be used to hold computing instructions, data, and other information for performing a wide variety of tasks including administering wagering games of the present disclosure" and may be any of a number of known types of computer memory including SRAM, DRAM, ROM, Flash, etc. Baron at [0124]. Baron also discloses that any feature from one disclosed embodiment (including this memory) may be combined with features with another disclosed embodiments, such as those described for Claims 1 or 8. Baron at [0145]. Therefore, to the extent the preamble is limiting, Baron discloses this element.

b. [Element 1] receiving first bet information for a first bet from a first player device of a first player on a spin of a roulette wheel, the first bet information corresponding to at least a first position on the roulette wheel;

310. Baron discloses this element for the reasons described for Claim 1, Element 4.

c. [Element 2] receiving second bet information for a second bet from a second player device of a second player on the spin of the roulette wheel, the second bet information corresponding to at least a second position on the roulette wheel that is different from the first position;

311. Baron discloses this element for the reasons described for Claim 1, Element 5.

d. [Element 3] determining that the roulette wheel and a ball on the roulette wheel have been spun for the spin of the roulette wheel;

312. Baron discloses this element for the reasons described for Claim 1, Element 6.

e. [Element 4] randomly selecting a first selected position on the roulette wheel for the spin of the roulette wheel prior to the ball falling into a position on the roulette wheel, wherein the first selected position is the same as the first position;

313. Baron discloses this element for the reasons described for Claim 1, Element 7.

f. [Element 5] determining a first payout for first position and a second payout for the second position for the spin of the roulette wheel, wherein the first payout is higher than the second payout;

314. Baron discloses this element for the reasons described for Claim 1, Element 8.

g. [Element 6] determining that the ball has fallen in the first position for the spin of the roulette wheel; and

315. Baron discloses this element for the reasons described for Claim 1, Element 9.

h. [Element 7] indicating that the first player is to be paid at the first payout for the spin of the roulette wheel.

316. Baron discloses this element for the reasons described for Claim 1, Element 10.

14. Claim 16: The non-transitory computer-readable medium of claim 15, wherein the method further comprises using a wheel sensor that is coupled to the hardware processor to determine that the roulette wheel has been spun.

317. Baron discloses this element for the reasons described for Claim 2.

15. Claim 17: The non-transitory computer-readable medium of claim 15, wherein the method further comprises indicating the first selected position on a display adjacent to the roulette wheel.

318. Baron discloses this element for the reasons described for Claim 4.

16. Claim 18: The non-transitory computer-readable medium of claim 17, wherein the method further comprises comprising causing a lightning visual effect to be presented

when in connection with indicating the first selected position.

319. Baron discloses this element for the reasons described for Claim 5.

17. Claim 20: The non-transitory computer-readable medium of claim 15, wherein the method further comprises: randomly selecting a second selected position on the roulette wheel; and determining a payout for the second selected position that is different than the payout for the first position.

320. Baron discloses this element for the reasons described for Claim 7.

XIII. ANALYSIS OF '014 PATENT

A. Ground 1: Kido

321. In my opinion, as set forth below, claims 1-3, 5-7, 9-11, 13-15, 17-19, and 21-23 of the '014 patent are unpatentable as being anticipated by Kido, or obvious in view of the disclosures of Kido.

1. Claim 1

a. [Preamble] A system for wagering, comprising

322. To the extent the preamble is limiting, Kido discloses "a gaming machine including … a plurality of terminal devices, each of which receives a bet on the game and awards a payout." Kido at [0009], *see also* Kido at Fig. 2, Fig. 3, Fig. 6, Fig. 7, [0003], [0017], [0024], [0031], [0039], [0047], [0055]. Kido also discloses a "large-scaled multi-participant gaming system" which is a system for wagering. Kido at [0283].

323. A specific embodiment of a system for wagering is described with respect to Figure 3 of Kido, which depicts "a schematic structure of a roulette gaming device 1." Kido at [0126]. The roulette gaming device 1 of Figure 3 includes twelve stations 4 which "correspond to the terminal devices 103 of Fig. 2" where each "station 4 serves as a bet unit for receiving a bet operation of a player and a payout unit for awarding a medal." Kido at [0127]. Therefore, Kido's roulette gaming device 1 is a "system for wagering" as recited in the preamble of claim 1.

324. Therefore, Kido discloses this element.

b. [Element 1] a roulette wheel;

325. Kido discloses "a roulette gaming device including: a roulette unit including a wheel on which a ball is rolled at a time of executing a roulette game, the wheel having thereon a plurality of marks." Kido at [0017].

326. In the embodiment of Figure 3, the roulette gaming device 1, includes a roulette unit 3 with a roulette wheel. Kido at [0132]-[0135]. Therefore, Kido discloses this element.

c. [Element 2] a ball configured to be used in the roulette wheel;

327. Kido discloses "a roulette unit including a wheel on which a ball is rolled at a time of executing a roulette game" [0017] and "to roll the ball and

determining, as a win mark, a mark corresponding to a stop position of the ball" [0020].

328. In the embodiment of Figure 3, the roulette unit 3 of Kido's roulette gaming device 1 includes a frame 21 with "a ball insertion slot 35…. The ball insertion device is structured to insert the ball 27 from the ball insertion slot 36 onto the wheel 22." Kido at [0133], [0136]. Therefore, Kido discloses this element.

d. [Element 3] at least one hardware processor collectively configured to:

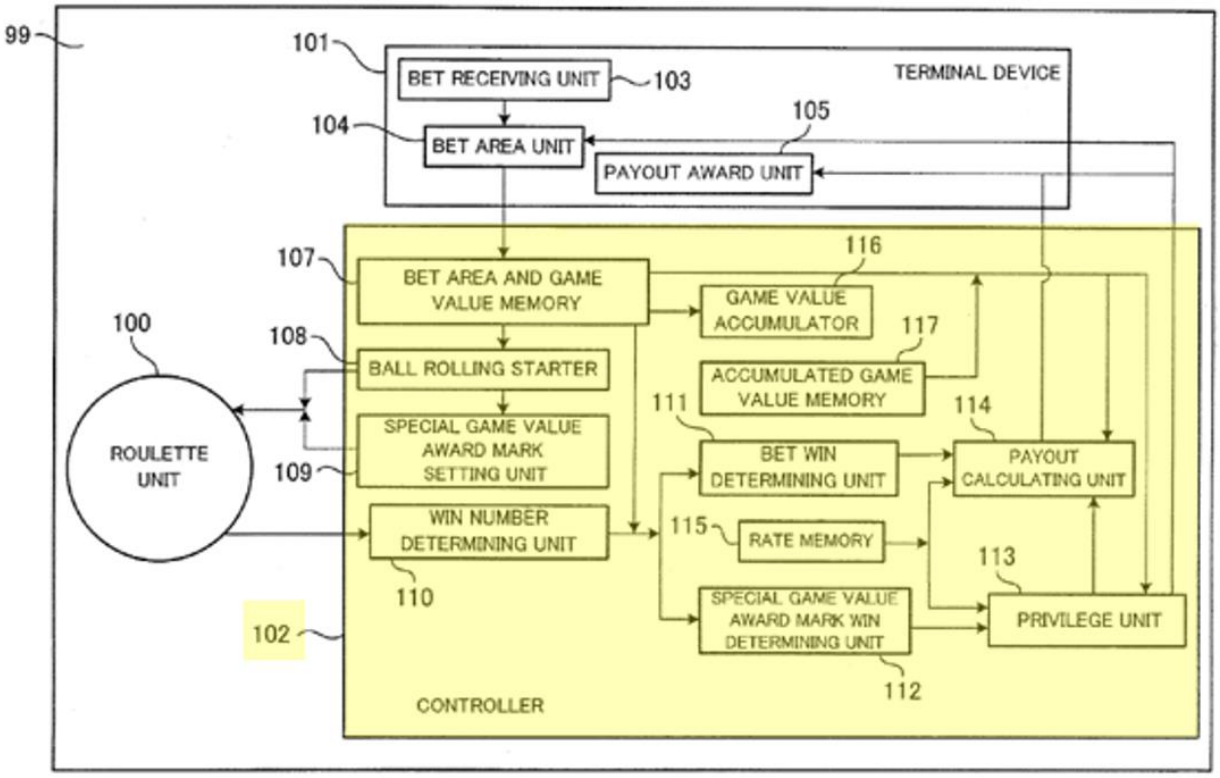
329. Kido discloses a "controller 102 is configured to execute a program." Kido at [0080]; *see generally* Kido at [0079]-[0119], Fig. 2. Kido also discloses that "the server 13 includes a server control CPU 81 serving as a calculation device performing an entire control and a control device." Kido at [0153]; *see generally* [0151]-[0160], Fig. 6. Kido further discloses that "the station control unit 90 includes a station control CPU 91." Kido at [0163]; *see generally* [0161]-[0170], Fig. 7.

330. 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 claim 1 of the '014 patent, as explained below. Further, Kido's CPUs 81, 91 are "hardware processors," as referred to in the '014 patent. A POSITA would have understood the acronym

"CPU" to stand for "central processing unit," a well-known type of hardware processor. Kido's CPUs 81, 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.

331. Kido's disclosure of the claimed "at least one hardware processor" is further reflected in Figure 2, a block diagram of the roulette gaming device 1 depicted in Figure 3. Kido at [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, which includes the aforementioned server control CPU 81. Kido at [0105], [0130][44], [0153].

[44] Kido paragraph [0130] states "the server 13 corresponds to the controller 105 of Fig. 2," however, in Fig. 2, the controller is numeral 102, not 105. See also Kido paragraph [0111]. 105 appears to be a mistranscription; see the following footnote for further information.



Kido, Fig. 2

332. A POSITA 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 functional blocks of the controller 102 of Figure 2 (e.g., "special game value award mark setting unit" 109; see Fig. 14). 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. Kido at [0111] ("controller 102 may be embodied in hardware or software, as required").

333. The '014 patent recites that "hardware processor 602 can include any suitable hardware processor, such as a microprocessor, a micro-controller, digital

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

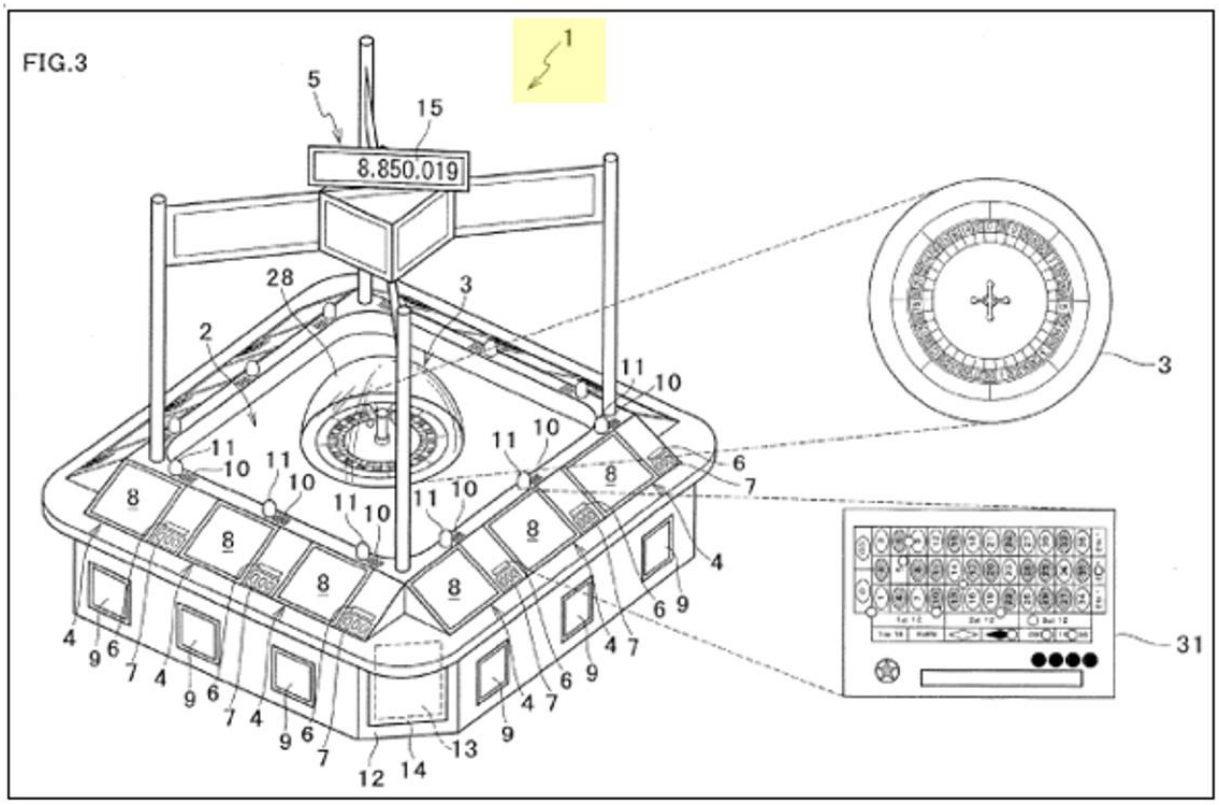
signal processor(s), dedicated logic, and/or any other suitable circuitry for controlling the functioning of a general-purpose computer or a special-purpose computer in some embodiments." '014 patent at 6:43-48. A POSITA would have understood that the controller and CPUs disclosed by Kido are each disclosures of at least one "hardware processor" as that term is used in the '014 patent.

334. Moreover, Kido discloses that its CPUs and/or controllers can be "collectively configured" and work together. For example, Kido discloses that "each program shown in flow charts of Figs. 9 to 15 is stored in the ROM 82 or RAM 83 provided to the server 13 or the ROM 92 or RAM 93 provided to the station 4 and is executed by the server control CPU 81 or station control CPU 91." Kido at [0193], see also Kido at [0268]-[0271], Figs. 6, 7. Therefore, Kido discloses this element.

e. [Element 4] generate a first graphical user interface for presentation on a first player device of a first player;

335. Kido discloses multiple player stations or terminal devices (e.g., twelve), each of which is used by a player to place bets based on a bet area displayed on an image display device. Kido at [0085], [0122], [0127]. Kido discloses that each station has a station control CPU that is "associated with an image display device 8 through a liquid crystal driving circuit 95. With regard to this, the liquid crystal driving circuit includes a program ROM [that] stores an

image control program for display on the image display device 8, a variety of selection tables and the like." Kido at [0165]-[0166], Fig. 7, Fig. 1. One of the displays that can be displayed on the image display device is "BET screen 31" (sometimes "BET screen 61").[45] Kido at [0175], Fig. 1, Fig. 5. In the embodiment of Figure 3, the stations 4 of the roulette gaming device 1 disclose the claimed "first player device of a first player":



Kido, Fig. 3

[45] I note that "BET screen 61" appears to be a typo, the figures depict numeral 31 with the label "BET SCREEN," not numeral 61. Paragraph [0177] also contains typos related to numerals 36 vs. 66. Compare Paragraph [0177] with Fig. 5. The foreign priority application for Kido was originally written in Japanese and these typos appear to be mistranscriptions: the machine translation of the Japanese priority patent is consistent in using numerals 31 or 36 and does not contain references to 61 or 66. See https://patents.google.com/patent/JP2008253402A/ (automatically machine-translated into English).

336. Therefore, Kido discloses a first player device of a first player.

337. The BET screen uses a touch panel that allows the player to select bet areas on the Bet screen using their finger. Kido at [0167], [0176]-[0177], [0183]. In Fig. 5, bet areas are depicted as numeral 42, placed wagers are depicted as numeral 41, and bet amount selection buttons are depicted as 36A-36D. Kido at [0182], [0183]; *see also* [0127], [0143], [0147]

338. Accordingly, 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, and therefore Kido discloses that it "generate[s] a first graphical user interface for presentation on a first player device of a first player," as claimed. Therefore, Kido's BET screen is a graphical user interface, so Kido discloses this element. Kido's graphical user interfaces are generated by the CPUs 81, 91 (*i.e.*, the "at least one hardware processor"). Kido at [0161]-[0170], [0188], [0193].

f. [Element 5] generate a second graphical user interface for presentation on a second player device of a second player;

339. Kido discloses that multiple players can use the multiple terminals in its embodiments. Kido at [0107], [0128] ("all players who play a game in the stations 4"), [0222]. Additionally, each of Kido's claims 1-7 recite "a plurality of terminal devices" wherein each terminal device "receives a bet." Since Kido

discloses multiple players and multiple terminals, the BET screen on a second player's terminal such as one of the stations shown in Fig. 3 (depicting twelve stations) is a second graphical user interface as claimed. As explained above, Kido's graphical user interfaces are generated by the CPUs 81, 91 (*i.e.*, the "at least one hardware processor"). Therefore, for these reasons and those provided above for Element 4, Kido discloses this element.

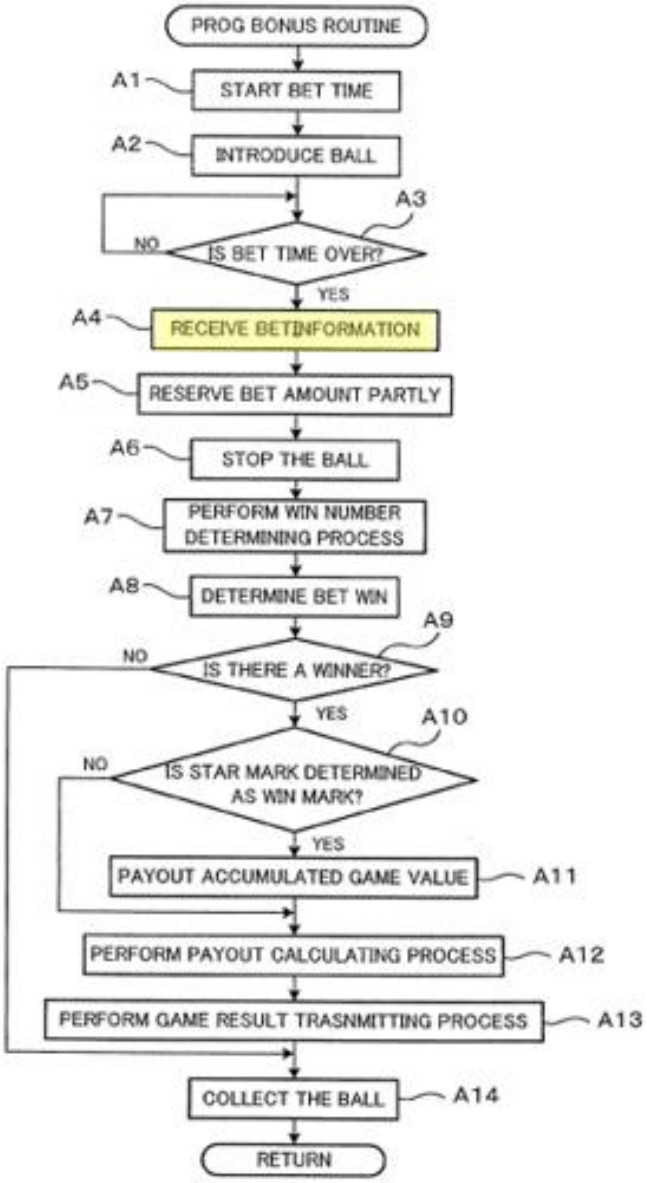
g. [Element 6] receive first bet information for a first bet on a spin of the roulette wheel via the first graphical user interface, the first bet information corresponding to only a single first position on the roulette wheel;

340. Kido discloses that "a player makes a bet, based on the BET screen 31 displayed on the image display device 8 of the station 4." Kido at [0186], Fig. 1, Fig. 3. Kido discloses that "station 4 includes … a station control CPU 91, a ROM 92 and a RAM 93" and that "the current bet information of a player (a bet area indicated in the BET screen 61 [sic: 31] and the number of chips bet) is stored in the RAM 93 at all times." Kido at [0163], [0167], Fig. 7. Kido further discloses that "Furthermore, the bet information is transmitted to the server control CPU 81 and is stored in the bet information memory area of the RAM 83." Kido at [0167]. Therefore, Kido discloses that both the station CPUs 91 and server control CPU 81 (*i.e.*, the "at least one hardware processor") receive the player's bet information. *See also* Kido at [0127], [0174]-[0188]

341. Kido discloses "As shown in Fig. 5, the chip mark 41 of "7", which is put on the grid of "18", indicates that 7 chips are bet on the number "18". Like this, the bet type in which a bet is made on one number only is referred to as a "Straight Up."" Kido at [0190]; *see also* [0172], [0182]. Kido also discloses the well-known and typical payouts for roulette including the "straight up" (single number) bet paying at 35-to-1. Kido at Fig. 8, "base odds" column, cf. EX1032 at p. 403, EX1046 at p. 2.

342. In Kido, the player's bets ("first bet information") are "on a spin of the roulette wheel" as claimed. For example, Kido Fig. 12 illustrates "a flow chart of a Prog routine program" (Kido at [0075]) executed by the roulette gaming device 1, showing that bet information is received at step A4 (highlighted in yellow below) for a spin of the roulette wheel:

FIG. 12



Kido, Fig. 12

343. In Kido's Prog routine of Fig. 12, at step A1 a BET timer starts and counts down the remaining time for the player to place a bet. Kido at [0222], *see also* Fig. 5 numeral 39. At step A2 of Fig. 12, during the elapsing BET time, a "ball insertion device is driven to introduce the ball 27 into the wheel 22." Kido at

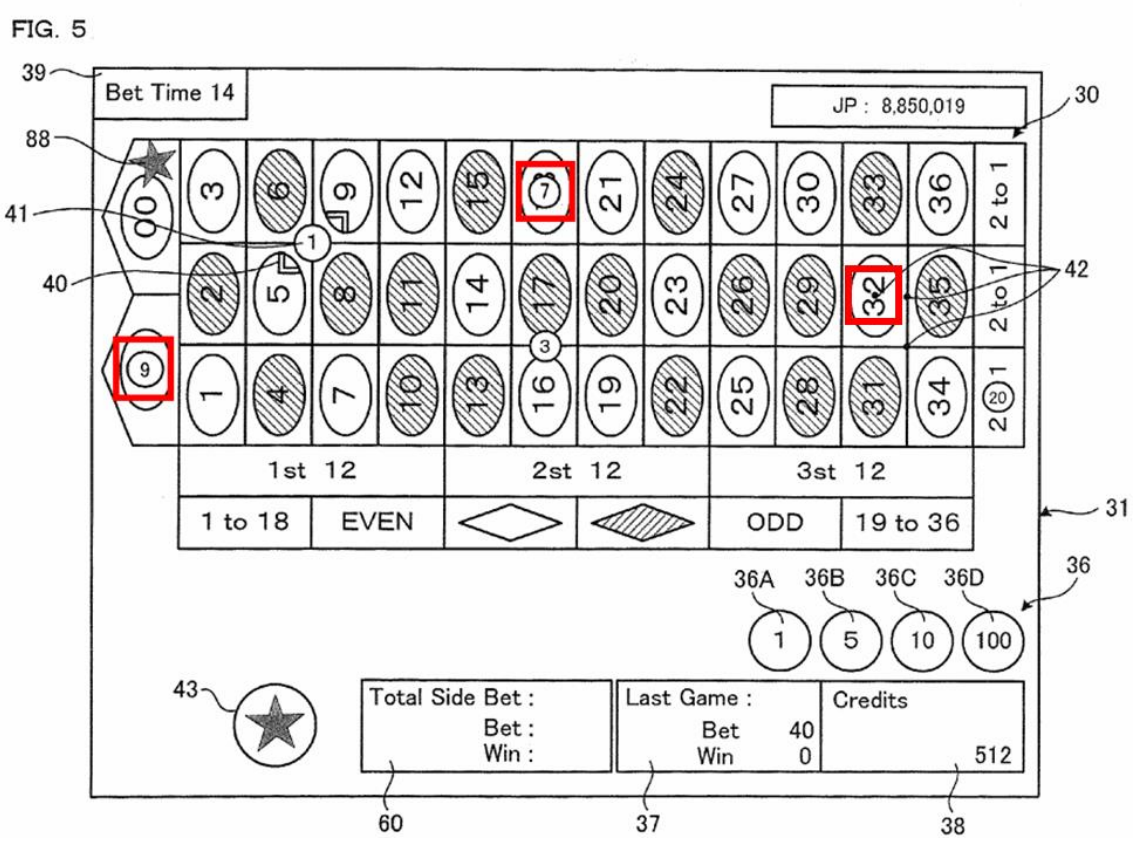
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Light & Wonder Exhibit 1003

[0223]. Then when the BET timer elapses in step A3, betting is closed and no further bets can be made. Kido at [0224]. A POSITA would understand this process to be equivalent to traditional physical roulette in casinos, where betting is available both before the ball is released into the wheel and for a short period of time after, until the dealer announces "no more bets." At step A4 the server "receives the bet information" for each station. Kido at [0225]. During this process, the ball eventually slows down and falls into a pocket in the wheel (Kido at [0227]), after which the remaining steps of Figure 12 are executed, and "[t]hen, the process returns to the step of A1 and is transited to a next game." Kido at [0233]. Accordingly, the bet information received at step A4 is "on a spin of the roulette wheel," as claimed: In each round of the roulette game played on the device of Kido, players make bets on the spin of the ball into the roulette wheel that is about to occur (or that is currently in progress), and bet information for each bet is received by the CPUs 81 and 91 for that spin. Therefore, Kido discloses this element.

h. [Element 7] receive second bet information for a second bet on the spin of the roulette wheel via the second graphical user interface, the second bet information corresponding to only a single second position on the roulette wheel that is different from the single first position;

344. Fig. 5 of Kido, the BET screen displayed on stations 4 as shown in Fig. 3, depicts a first straight up bet of 7 chips on number 18 and a second straight

up bet of 9 chips on number 0, and therefore discloses two different bet informations. One of the "bet areas 42" also points to a single number:



Kido at Fig. 5, straight up bets highlighted

345. Additionally, as described for Elements 4, 5 and 6, Kido discloses that each player terminal has its own BET screen, and that players may make their own wagers. It is therefore inherent in the disclosure of Kido that two players can make their own different wagers, each via their own interface, including different straight up bets on the same spin of the roulette wheel. Therefore, for the reasons described for Elements 4, 5 and 6, Kido discloses this element.

i. [Element 8] determine that the roulette wheel and the ball have been spun for the spin of the roulette wheel;

346. Kido discloses a horizontally disposed roulette wheel that rotates around a vertical center axis. Kido at [0133], Fig. 1 numeral 3 ("roulette rotation"). The wheel can be covered by a transparent covering. Kido at [0132], Fig. 3 numerals 3, 28. Kido also discloses that a ball is rolled around an outer frame and, as it slows, reaches the rotating roulette wheel. Kido at [0138], Fig. 4. Kido also discloses that "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." Kido at [0154], [0157]; *see also* [0108], [0114], [0153], [0223], [0227].

347. Kido discloses that a ball insertion device inserts or introduces (rolls or shoots) the ball onto the wheel, controlled by the server control CPU 81. Kido at [0136], [0138], [0154], Fig. 1 ("ball introduction"). For example, the server control CPU can wait until a bet timer elapses and then introduce the ball to the wheel. Kido at [0157], [0181], [0211], [0223]. Because the CPU 81 causes the roulette wheel and ball to spin, the CPU 81 necessarily "determine[s] that the roulette wheel and the ball have been spun."

348. The CPU 81 is also configured to determine that the ball has landed in a position. Kido at [0227]-[0228]. Because the CPU 81 (i) starts the spinning of the wheel and ball, and (ii) later determines that the ball has stopped, the CPU 81 necessarily "determine[s] that the roulette wheel and the ball have been spun"

during the interim period. Likewise, a POSITA would have understood that because Kido's roulette gaming device 1 is configured to determine a "win number" (*i.e.*, the number of the position into which the ball lands) and players' payouts for the spin of the wheel (Kido at [0228]-[0231], *see also* Fig. 12 at steps A7, A8, A12), the roulette gaming device 1 necessarily determines that the roulette wheel and ball have been spun. Otherwise there would be no win number or payouts to determine.

349. The '014 patent discloses that "a roulette wheel and ball can be spun … in any suitable manner. … in some embodiments, the wheel and ball can be automatically spun under the control of a hardware processor." '014 patent at 4:40-47. Therefore, Kido's server control CPU 81 that controls a rotating wheel and introduces a rolling ball discloses this element.

350. The determination that the wheel and ball have been spun is "for the spin of the roulette wheel" as claimed. In the prog bonus routine of Figure 12, the ball and wheel are spun (Kido at [0223]-[0227]), and the subsequent steps of the routine are then performed, including determining that the ball has stopped and making playouts to players for the spin of the wheel. Kido at [0228]-[0232]. At the conclusion of the routine, "the process returns to the step of A1 and is transited to a next game." Kido at [0233]. The CPU 81's determination that the wheel and ball have been spun—as evidenced at least by the CPU 81's spinning of the wheel

and determination of win numbers and payouts for that spin—thus occurs for a spin of the wheel, as claimed.

351. Further, when players make wagers specifically ***on a spin*** of a roulette wheel as claimed (Element 6: "a first bet ***on a spin*** of the roulette wheel" and Element 7: "a second bet ***on the spin*** of the roulette wheel"), it is tautological that spinning the roulette wheel and ball to produce an outcome that resolves those wagers is done "for the spin of the roulette wheel."[46]

352. Additionally, Kido's disclosure is consistent with the '014 patent, which describes (at 3:11-13) a "wheel sensor 104 [that] can detect the spinning of the wheel and the position in which the ball falls. The sensor can be implemented in any suitable manner." Kido likewise discloses that "a win number of the roulette unit 3 [is] determined by a sensor" (Kido at [0156]), and a POSITA would have understood that this sensor would be used to determine that the wheel and ball have been spun. Kido at [0108], [0114], [0137], [0138], [0154], [0201], [0215], [0228], [0241], [0259]. It would have at least been obvious to use Kido's sensor to detect the spinning of the wheel and ball, as is well-known in the art. For example, a POSITA would have been motivated to use Kido's sensor to provide a variety of functions—e.g., detecting the spinning of the wheel and ball and then

[46] As described herein, some roulette wagers take more than one spin to resolve, therefore it is possible that a roulette number generated ***by*** an earlier spin of the wheel could also be used ***for*** a later spin as well.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

determining the position into which the ball lands—thereby avoiding the costs of unnecessary, duplicative components.

353. Therefore Kido discloses this element.

j. [Element 9] randomly select a first selected position on the roulette wheel for the spin of the roulette wheel prior to the ball falling into an outcome position on the roulette wheel, wherein the first selected position is the same as the single first position;

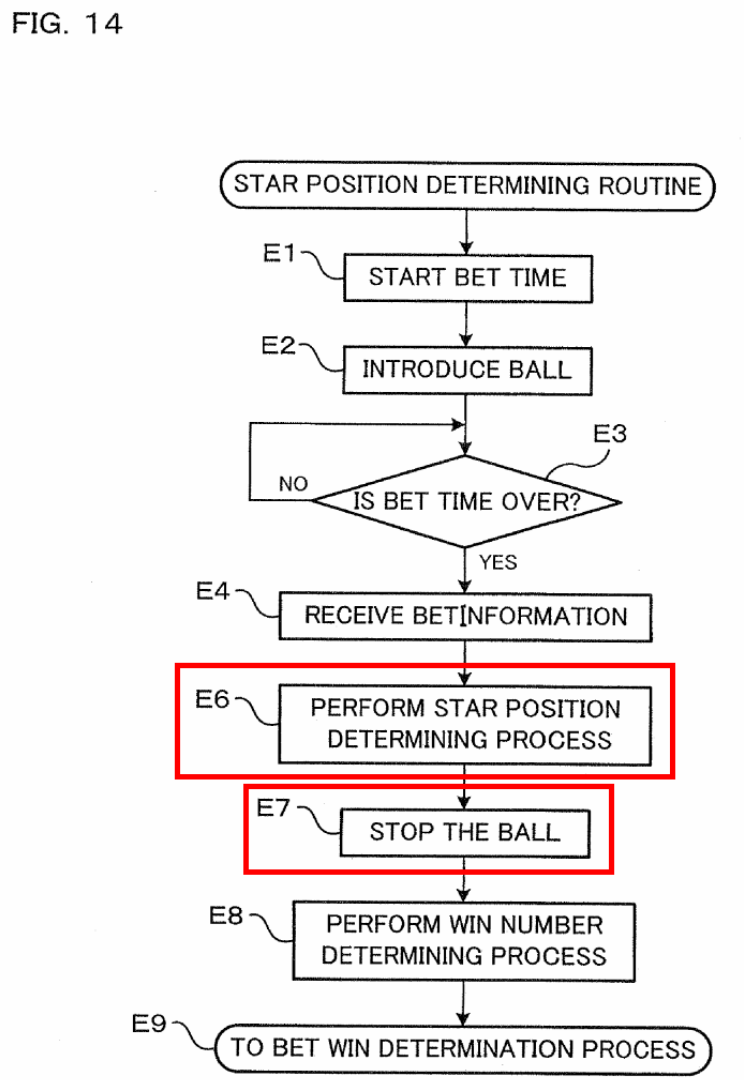
354. Kido discloses that "the roulette unit also has a function of randomly selecting a position of the star mark 88. … Fig. 14 is a flow chart of star position determining routine program of a roulette gaming device 1." Kido at [0249], Fig. 1, Fig. 3. Kido's star mark position is disclosure of a first selected position on the roulette wheel, and it is randomly selected. *See also* Kido at [0050]-[0052], [0099]-[0100], [0108], [0114].

355. Kido discloses that the randomly selected star mark is used to determine whether a privilege is won on a given spin of the wheel. Kido at [0063], [0185]-[0186], Figs. 1, 14. Kido's Figure 14 "is a flow chart of a star position determining routine program of [the] roulette gaming device 1," and this figure shows that the random selection of the star mark position at step E6 occurs prior to the ball falling into an outcome position on the roulette wheel. Kido at [0249], Fig. 14. At step E2, "the ball 27 [is introduced] to the wheel 22." Kido at [0250]. Then, while the ball and wheel are spinning and before the ball falls into an

outcome position at step E7, the server control CPU 81 randomly selects the position for the star mark. Kido at [0112], [0250], Fig. 14 numerals E6, E7.

356. [intentionally omitted]

FIG. 14



Kido at Fig. 14, steps E6 and E7 highlighted. *See also* Kido at [0114], [0265].

357. After the ball lands at step E7, steps E8 and E9 are performed to determine the win number for the spin (i.e., the position in which the ball landed

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

for the spin) and whether there was a winner for the spin. Kido at [0229]-[0230], [0250].

358. Kido discloses awarding a privilege when, among other things, "the mark bet is also the special game value award mark." Kido at [0053], [0100]. In this claim, Kido's "the mark bet" for a first player corresponds to the claim term "the single first position," and Kido's star mark or special game value award corresponds to the claim term "the first selected position."

359. Kido discloses performing the Star Position Determining Routine of Fig. 14 in conjunction with the other disclosed routines, including transitioning from steps E8 and E9 in Fig. 14 to step A9 in the Prog routine. Kido at [0249]-[0250].[47] 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 POSITA would have understood both alternatives as being viable options for determining the star mark's position in the Prog bonus routine of Figure 12. Kido at [0221], [0249]-[0250], [0265]. In view of this Kido's disclosure, a POSITA would have immediately envisaged the use of Kido's Figure 14 star position determining routine in the Prog bonus routine of Kido's

[47] I note two other typos in [0250], namely that Kido recites "a step of B6, 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." First, there is no step B6 in Fig. 14, and step B6 in Fig. 9 relates to the win number determining process; but step E6 in Fig. 14 is "Perform Star Position Determining Process." Second, in the description of possible selections for the star mark, "0" is duplicated while "00" is omitted. See [0050], [0134], and Fig. 4.

Figure 12. e.g., before step A9 of the Prog routine as disclosed. Kido at [0249]-[0250].

360. Alternatively, Kido also discloses that the position of the star mark can be set in advance of the game. Kido at [0209], [0221], [0249]. In the event the randomly selected position of the star mark is set in advance of the game, the player can choose to bet on the position of the star mark, and therefore the first selected position would be the same as the single first position. In this scenario, the star position would be randomly selected "prior to the ball falling into an outcome position on the roulette wheel," and also selected before the game begins. However, this randomly selected star position is nevertheless disclosure of "randomly selecting a first selected position on the roulette wheel for the spin of the roulette wheel." The claim language does not limit the claimed step of "randomly selecting" to occur after the wheel and ball have been spun, only "prior to the ball falling into an outcome position."

361. Kido also discloses "wherein the [randomly selected] first selected position is the same as the single first position [on which the first player has placed a bet]." Kido describes that the "privilege and a payout of the privilege" for the star mark are only available when the first selected position (*i.e.*, the "star mark") is the same as the single first position, *i.e.*, the number on which the player has placed a bet. Kido at [0114].

362. Kido's first selected position is randomly selected "for the spin of the roulette wheel," as claimed. Kido's Figure 14 (reproduced above) "is a flow chart of a star position determining routine program of [the] roulette gaming device 1," and this figure shows that the random selection of the star mark position at step E6 occurs for a spin of the roulette wheel. Kido at [0249], Fig. 14. Specifically, at step E2, "the ball 27 [is introduced] to the wheel 22." Kido at [0250]. Then, while the ball and wheel are spinning and before the ball falls into an outcome position at step E7, the server control CPU 81 randomly selects the position for the star mark. Kido at [0250]; *see also* [0112]. After the ball lands at step E7, steps E8 and E9 are performed to determine the win number for the spin (i.e., the position in which the ball landed for the spin) and whether there was a winner for the spin. Kido at [0229]-[0230], [0250]. Accordingly, the position for the star mark randomly selected at step E6 is "for the spin of the roulette wheel," as claimed: In each round of roulette, the wheel is spun, and the position of the star mark is randomly selected for that spin of the wheel.

363. Therefore Kido discloses this element.

k. [Element 10] determine a first payout for the first single position and a second payout for the single second position for the spin of the roulette wheel, wherein the first payout is higher than the second payout;

364. As described for Element 9, Kido discloses that a star mark may be randomly selected by the controller or CPUs as part of the Prog routine by carrying out the steps in Fig. 14 and then transitioning to step A9 of the Prog routine. Kido at [0249]-[0250], Figs. 1-3, 12 and 14.

365. Step A9 in Kido's Fig. 12 discloses checking for a winner and if yes, determining whether the win occurred in the star mark. Kido at Fig. 12 numerals A9, A10, [0230]. If the win did not occur in the star mark, the payout for the winner "is calculated using the base odds" according to Fig. 8 (e.g., 35:1 for a straight up bet.) Kido at [0231]. However, if the win occurred in the star mark, the payout also includes a progressive or "Prog" bonus, that is "accumulated game value" accumulated from a predetermined ratio of a portion of the chips bet from prior games where the win did not occur in the star mark. Kido at [0226], [0230], Fig. 12 steps A5 and A11. A POSITA would recognize Kido's description of the Prog bonus to reflect the commonplace process for accumulating and paying out a progressive jackpot prize.

366. Therefore, the accumulated game value or progressive prize in step A11 is added to the base odds payout from step A12 when the win occurs in a star

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

mark ("first selected position the same as the single first position"), but not when a win occurs on any other number ("single second position different from the single first position"), and therefore the amount won from a star mark win ("first payout") will be greater than ("higher than") the amount won from a non-star mark win ("second payout"). Therefore, and for the reasons described for Elements 6, 7, and 9, Kido discloses this element.

367. Alternatively, Kido discloses that the base odds payout for a non-star mark win may be 35:1 for a straight up bet, while payout odds for a star bonus win may be 71:1 ("doubled") for a straight up bet. Kido at Fig. 8, [0172]. In view of Kido's disclosure that its various privileges may be combined, Kido therefore discloses or at least suggests that a single-number win on a star mark position may pay twice the payout odds (higher) compared to a single-number win on a non-star mark position. Kido at [0282].

368. Alternatively, Kido discloses that one player may win while another player may lose, either based on whether placed bets match with a win number generally, or whether a win occurs in the star mark specifically. Kido at [0124], [0186]-[0187]. For example, Fig. 1 shows a win leading to an increase in credits and a loss leading to a decrease in credits. Kido at Fig. 1, [0186], [0187]. A first winning player's increase of credits is necessarily a higher payout than a second losing player's decrease of credits. Put another way, Kido discloses that making a

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

wager decreases the credit-number indicator 38 by the corresponding bet amount, and winning a wager increases the credit-number indicator, so a winning player receives a greater-than-zero payout which is higher than a losing player's payout of zero. Kido at [0179], Fig. 1. It is inherent that if two players make different straight up bets as claimed in Elements 6 and 7 on the same spin of a roulette wheel, if the first player wins, the second must necessarily lose. Therefore, when one player wins a straight up bet and another player loses a different straight up bet, Kido (and the traditional game of roulette itself) discloses determining a first (positive) payout for the first (winning) single position for the spin of the roulette wheel, and determining a second (zero) payout for the single second (losing) position for the spin of the roulette wheel, and a positive payout is always greater than (higher than) zero. The claimed steps of "determine a first payout" and "[determine] a second payout" are further disclosed by Kido's various "perform payout calculating process" steps. Kido at Fig. 9 numeral B10, Fig. 11 numeral C10, Fig. 12 numerals A11 and A12, Fig. 13 numeral D10, Fig. 15 numeral F11.

369. In this scenario, the steps of determining payouts occurs after the ball has stopped and the winning number for the spin is known, but the claim language

for Element 10 does not limit the claimed step of "determine a first payout" to occur "prior to the ball falling into an outcome position."[48]

370. Kido's winning payouts, whether occurring in the star mark position or not, are payouts "for the spin of the roulette wheel." As explained above, Kido's Figure 12 "is a flow chart of a roulette game processing program" executed by the server control CPU 81 of the roulette gaming device 1. Kido at [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. Kido at [0227]-[0228]. After the ball is received in a pocket, the remaining steps of Figure 12 are executed, with the server control CPU 81 determining the first and second payouts by performing steps A9-A12. 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." Kido at [0228]-[0233]. Kido's payouts are thus determined "for the spin of the roulette wheel," as claimed.

371. I understand Patent Owner argues that Kido's Prog bonus is "accumulated from prior games of roulette" and therefore "is not for the single

[48] To the extent patent owner argues that the step of Element 10 must necessarily occur prior to the ball falling into an outcome position per the step of Element 11, and therefore Kido's disclosure of winning or losing wagers cannot satisfy the claim language, I would disagree since the claims are not so limited. During patent prosecution of the parent application, the applicant amended Element 9 to add the limitation that the claimed step of "randomly select" occurred "prior to the ball falling into an outcome position on the roulette wheel," demonstrating that the applicant knew how to limit certain claim steps to occurring in a specific order. The "determine a first payout" step of Element 10 was not similarly limited and therefore need not occur "prior to the ball falling into an outcome position on the roulette wheel."

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

'spin of the roulette wheel.'" But the claims do 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. Regardless, a POSITA would have also understood that the funds paid from a Prog bonus could be sourced from a single round of roulette (in other words, that it is possible for two progressive prizes to hit on back-to-back plays): For example, after awarding the prog bonus in a first round, this award would be reset and need to be built up again, starting in a next, second round. As described herein, Kido discloses reserving a "predetermined ratio" of the wager and accumulating that amount (i.e. a progressive prize). Kido at [0226]. Fig. 14 numeral A5. 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, since the accumulated prize from prior rounds had already been paid in that first round. Kido at Fig. 14 numeral A11. Further, Kido more generally describes awarding "a privilege and a payout" to players as a bonus in a current game round, without limiting such payouts to progressive payouts. Kido at [0112], [0114].

372. Therefore, Kido discloses this element.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

l. [Element 11] determine that the ball has fallen in the single first position for the spin of the roulette wheel; and

373. In step A7 of Kido's Figure 12 Prog bonus routine, the server control CPU 81 determines "the numbered pocket 23 into which the ball 27 is received." Kido at [0228]. Then, 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." Kido at [0229]. In determining whether a player's bet on a single first position is a winner at step A8, the CPU 81 necessarily determines whether the ball has fallen into the single first position. For a straight up bet on a single position, that is how a player wins—only if the ball falls into that position—meaning that Kido's system necessarily "determine[s] that the ball has fallen in the single first position," as claimed. *See also* Kido at [0108].

374. Further, Kido discloses steps of "stop the ball" and "win number determining process" for each of its routines, and that those routines are carried out by the controller or CPUs in the roulette gaming system. Kido at Figs. 1-3, Fig. 9 numerals B5 and B6, Fig. 11 numerals C5 and C6, Fig. 12 numerals A6 and A7, Fig. 13 numerals D5 and D6, Fig. 14 numerals E7 and E8, Fig. 15 numerals F6 and F7. Kido also discloses "determining, as a win mark, a mark corresponding to a stop position of the ball." *See, e.g.,* Kido at [0020], [0027], [0035], [0042], [0059].

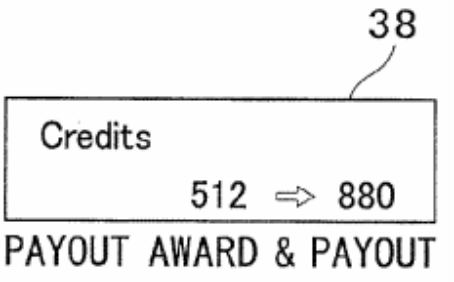
Moreover, the claimed ball is the same ball that was determined to "have been spun for the spin" in Element 8 as described above, so the determination that the same ball has fallen into a position is "for the spin of the roulette wheel." As explained above, the steps of Figure 12 (including A7 and A8) 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." Kido at [0233].

375. As described for Element 6, Kido discloses a player making a straight up bet on the claimed "single first position". Kido also discloses that bets may win (which is inherent in roulette wagers) and expressly provides base payout odds for straight up bets at 35:1. Kido at [0172] ("'odds' means a payout-number of credits for a win"), [0186], [0191]. The claimed determination "that the ball has fallen in the single first position" is therefore a determination that the first player's bet has won. Therefore, Kido discloses this element.

m. [Element 12] indicate that the first player is to be paid at the first payout for the spin of the roulette wheel.

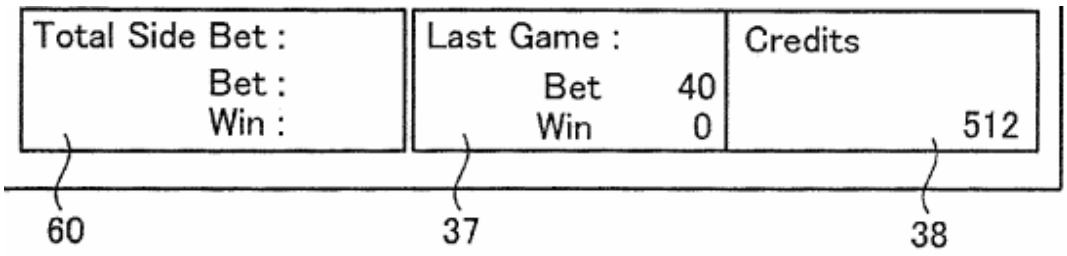
376. Kido discloses, after its payout calculating process, a game result transmitting process. Kido at Fig. 9 numerals B10 and B15, Fig. 11 numerals C10 and C11, Fig. 12, numerals A12 and A13, Fig. 13 numerals D10 and D15, Fig. 15 numerals F11 and F12. For example, step A13 comprises "transmitting to all the stations 4 a signal relating to a display change accompanying the payout of credits

based on the payout calculating process of A12." Kido at [0232]. Fig. 1 numeral 38 of Kido illustrates an increase in credits after a win.



Kido at Fig. 1, cropped

377. The credit-number indicator (credit meter) 38 depicted in Fig. 1 is shown in more detail on the BET screen 31 as depicted in Fig. 5, which is the same BET screen 31 used on the stations 4 in Fig. 3. Kido at [0175], [0179], [0185], [0186]. Further, Kido discloses cashout results indicator 37 including an indication of the credits bet and won on the last game, and that the cashout results are added to the credit number indicator 38. Kido at Fig. 5 numerals 37 and 38, [0178], [0179].



Kido at Fig. 5, cropped. *See also* Kido at [0232]. Kido also explains that the gaming machine may use "an image display device that displays a game result." Kido at ¶[0082]. A POSITA would understand that the "game result" on the game display recited in Kido would indicate the first payout.

378. Therefore, Kido discloses a cashout results indicator that indicates a win amount to be added (paid) to the player's credits as a result of any winnings "for the spin of the roulette wheel" that has just concluded, including that the player is to be paid at the claimed "first payout" when the first player wins a straight up bet on the star mark position as further described for Element 10. Therefore Kido discloses this element.

379. For the reasons herein, it is my opinion that Kido discloses each element of claim 1 of the '014 patent.

380. To the extent it is found that any element is not disclosed expressly or inherently, it is my opinion that Kido renders obvious such element for the reasons expressed herein.

2. Claim 2: The system of claim 1, further comprising a display adjacent to the roulette wheel that indicates the first selected position.

381. Kido discloses that the star mark 88 is displayed on the BET screen 31 displayed on the display device 8 at each player station. Kido at [0184]-[0188], Fig. 3 numerals 8, 31, Fig. 5 numeral 88. Specifically, Fig. 3 depicts a "display (numeral 8) adjacent to the roulette wheel (numeral 3)" and Fig. 5 depicts the "first selected position (numeral 88)." *See also* Kido at [0122], [0143]. Therefore, Kido discloses this element.

3. Claim 3: The system of claim 2, wherein the at least one hardware processor is further configured to cause a lightning visual effect to be presented in connection with indicating the first selected position.

382. I am informed by counsel that a "lightning visual effect (that is) presented in connection with indicating the first selected position" is non-limiting printed matter.

383. Regardless, in my opinion it would have been obvious to a POSITA to substitute a lightning visual effect for the star mark disclosed by Kido, or add a lightning visual effect to the disclosed star mark, for several reasons. One is that Kido discloses that "by generating the image information and the effect sound to notify a player of the privilege award information in this roulette game, it is possible to increase a player's expectation on the roulette game." Kido at [0188]. In addition, "[t]he roulette gaming device 1 has … an electric light indicator 5." Kido at [0126]. "[T]he server control CPU 81 is associated with the electric light indicator 5. The server control CPU 81 controls light emission of a light emitting member such as LED to perform an effect by an electric spectacular and to display predetermined letters on the electric light indicator 5." Kido at [0158].

384. Kido thus discloses that, when the number bet on by the player is the same as the special game value award mark, Kido's system generates both sound effects and visual effects "to perform an effect by an electric spectacular." Kido at [0158]. A POSITA would have understood that the specific visual nature of the

spectacular to be generated "in connection with indicating the first selected position" would have been an arbitrary design choice. In my view, a lightning visual effect would have been an obvious choice to a POSITA. Kido teaches the benefits of audiovisual effects, and a POSITA would have been well aware of numerous electronic games involving "lightning visual effects" imagery, including Aristocrat's popular "Lightning Link" series of games. First released in 2014, and exhibited at the G2E industry tradeshow in Las Vegas in October 2015, Lightning Link involves "lightning visual effects" in both the title and gameplay (as shown in the screenshots below). By 2018 Lightning Link games were some of the most popular electronic wagering games in the marketplace due to their popular "Hold & Spin" bonus feature. The title "Lightning Link" includes lightning bolt images for all three instances of the letter "I" and also features lightning effects around and behind the title. During the bonus round, the game animation presents a lightning visual effect in connection with indicating each prize position in a grid of up to 15 positions.



Screenshot from YouTube video published on October 21, 2015.[49]



Screenshot from YouTube video published September 9, 2015.[50]

[49] https://www.youtube.com/watch?v=h9A1ekq4DPY&ab_channel=RandomSlots
[50] https://www.youtube.com/watch?v=8gpp0KD04-E&ab_channel=Jarrydlawton

385. Additionally, WMS Gaming (now owned by Light & Wonder) filed for a trademark on its "Zeus" slot machine on May 16, 2012, a filing that included a specimen showing a raised fist holding a lightning bold (*i.e.*, a "lightning visual effect."[51]



Excerpt from specimen in U.S. Reg. Trademark 4,896,961

386. Lightning bolt imagery also appears in a specimen dated December 20, 2016 in a trademark filing by Aries Technology[52]:

[51] https://tsdr.uspto.gov/documentviewer?caseId=sn85626722&docId=SPE20120519071222&linkId=27#docIndex=26&page=1

[52] https://tsdr.uspto.gov/documentviewer?caseId=sn86254406&docId=SPE20161221174429&linkId=11#docIndex=10&page=1

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003



Excerpt from specimen in U.S. Reg. Trademark 5,146,998. *See also* Miltenberger at 11:19-45 ("bonus lighting" to indicate positions eligible for increased payouts); Hsu at 3:59-61 ("raised odds [displayed] by color change, luminosity increase or profile highlight").

387. Second, a POSITA with knowledge of visual imagery in prior electronic gaming machines would have found both lightning and stars to be imagery associated with winning or prizes, and substituting one such image for another would have been a simple matter of design choice with predictable results.

388. Therefore, a POSITA would have found it obvious to present such a popular visual effect as a lightning visual effect in connection with indicating the claimed first selected position.

4. Claim 5: The system of claim 1, wherein the at least one hardware processor is further configured to:

a. randomly select a second selected position on the roulette wheel; and

389. Kido discloses that an "object of the invention is to provide a roulette gaming device that awards a new game value to several numbers (including letters) serving as a figure letter including numbers such as numbers indicated on a wheel." Kido at [0008]. Kido discloses setting such a "star mark 88," so it is at least obvious that the object of Kido's invention can be satisfied by "awarding a new game value to several star marks."

390. Kido further discloses multiple privilege routines, each of which can randomly select a position of the star mark. Kido at [0249], [0282], Fig. 14. Kido also discloses that the privileges may be combined. Kido at [0282]. In the event of combining privileges, there are only two possibilities: either the same star mark is used to trigger both privileges, or two different star marks are used to trigger one privilege each. A POSITA would have understood that combining privileges triggered by the same star mark (same roulette number) would lead to higher mathematical variance than implementing two privileges with different star

positions each, and would have chosen either approach based on the mathematical design goals of the game (higher hit frequency vs. higher average winning payout). Therefore, it would have been at least obvious to combine two privilege routines by randomly selecting a position of a different star mark for each one, such that one privilege would be awarded on a first star mark and a second privilege would be awarded on a different mark. Therefore, Kido renders obvious "randomly select[ing] a second selected position on the roulette wheel" as claimed.

b. determine a payout for the second selected position that is different than the payout for the single first position.

391. In my opinion, once a POSITA had selected two different star marks in the system of Kido as described above, it is inherent that the determined payouts for a win on the first and second marks could only either be the same or different. Therefore, it is at least obvious that the payouts for winning on a first star mark vs. winning on a second star mark can be different. Doing so would also satisfy the "object of the invention [which] is to provide a roulette gaming device that awards a new game value to several numbers." Kido at [0008]. As described herein, a POSITA would understand that many other games provided different awards for different winning outcomes so it would have been obvious to do so in Kido. *See* Section IX.E.

392. 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." Kido at [0006]-[0008]. A POSITA would have recognized that using different payouts for the first and second randomly selected positions would add excitement for players, thus motivating the POSITA to select this option. Further, the random selection of multiple positions with different payouts was known in the art, which would have further motivated a POSITA to employ this technique in Kido. *See, e.g.*, de Raedt at Abstract.

5. Claim 6: The system of claim 1, wherein the at least one hardware processor is further configured to cause the ball and the roulette wheel to automatically spin.

393. In my opinion, Kido discloses this element for the reasons described for Claim 1, Element 8. As explained above, Kido discloses that the CPU 81 is configured to cause the roulette wheel and ball to spin automatically, without human intervention. Kido at [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* Kido at [0153], [0108], [0114], [0221], [0223], [0227].

6. Claim 7: The system of claim 1, wherein the first graphical user interface includes a roulette board and wherein the at least one hardware processor is further configured to highlight the first selected position in response to the first selected position being randomly selected.

394. Fig. 5 of Kido depicts a roulette board and a highlighted first selected position (00, shown with a star mark) in the first graphical user interface. For this reason, and the reasons described for Claim 1, Elements 4 and 9, Kido discloses this element. As explained above, 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. Kido at [0175], [0186]. Kido's betting board 30 displayed on the first graphical user interface is a "roulette board," as claimed. Further, in Kido, the at least one hardware processor is configured to highlight the first selected position in response to the first selected position being randomly selected. The randomly selected star mark 88 is displayed on the roulette wheel (Kido at Fig. 4, numeral 88) and on the betting board 30 of the bet screen 31. Kido at Fig. 5, numeral 88; [0068]. A POSITA would have understood that the display of the randomly selected star mark 88 serves as a type of highlighting, thereby disclosing this limitation.

7. Claim 9

a. [Preamble] A method for wagering, comprising:

395. As described for Claim 1, Kido discloses several methods for wagering, including several privilege routines. Therefore, to the extent the preamble is limiting, Kido discloses a method for wagering.

b. [Element 1] generating, using at least one hardware processor, a first graphical user interface for presentation on a first player device of a first player;

396. Kido discloses this element for the reasons described for Claim 1, Element 4.

c. [Element 2] generating, using the least one hardware processor, a second graphical user interface for presentation on a second player device of a second player;

397. Kido discloses this element for the reasons described for Claim 1, Element 5.

d. [Element 3] receiving, using the at least one hardware processor, first bet information for a first bet on a spin of the roulette wheel via the first graphical user interface, the first bet information corresponding to only a single first position on the roulette wheel;

398. Kido discloses this element for the reasons described for Claim 1, Element 6.

e. [Element 4] receiving, using the least one hardware processor, second bet information for a second bet on the spin of the roulette wheel via the second graphical user interface, the second bet information corresponding to only a single second position on the roulette wheel that is different from the single first position;

399. Kido discloses this element for the reasons described for Claim 1, Element 7.

f. [Element 5] determining, using the least one hardware processor, that the roulette wheel and the ball have been spun for the spin of the roulette wheel;

400. Kido discloses this element for the reasons described for Claim 1, Element 8.

g. [Element 6] randomly selecting, using the least one hardware processor, a first selected position on the roulette wheel for the spin of the roulette wheel prior to the ball falling into an outcome position on the roulette wheel, wherein the first selected position is the same as the single first position;

401. Kido discloses this element for the reasons described for Claim 1, Element 9.

h. [Element 7] determining, using the least one hardware processor, a first payout for the single first position and a second payout for the single second position for the spin of the roulette wheel, wherein the first payout is higher than the second payout;

402. Kido discloses this element for the reasons described for Claim 1, Element 10.

i. [Element 8] determining, using the least one hardware processor, that the ball has fallen in the single first position for the spin of the roulette wheel; and

403. Kido discloses this element for the reasons described for Claim 1, Element 11.

j. [Element 9] indicating, using the least one hardware processor, that the first player is to be paid at the first payout for the spin of the roulette wheel.

404. Kido discloses this element for the reasons described for Claim 1, Element 12.

8. Claim 10: The method of claim 9, further comprising indicating the first selected position on a display adjacent to the roulette wheel.

405. Kido discloses this element for the reasons described for Claim 2.

9. Claim 11: The method of claim 10, further comprising causing a lightning visual effect to be presented in connection with indicating the first selected position.

406. Kido discloses this element for the reasons described for Claim 3.

10. Claim 13: The method of claim 9, further comprising:

a. randomly selecting a second selected position on the roulette wheel; and

b. determining a payout for the second selected position that is different than the payout for the single first position.

407. Kido discloses these elements for the reasons described for Claim 5.

11. Claim 14: The method of claim 9, further comprising causing the ball and the roulette wheel to automatically spin.

408. Kido discloses this element for the reasons described for Claim 6.

12. Claim 15: The method of claim 9, wherein the first graphical user interface includes a roulette board and further comprising highlighting the first selected position in response to the first selected position being randomly selected.

409. Kido discloses this element for the reasons described for Claim 7.

13. Claim 17

a. [Preamble] 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, the method comprising:

410. As described for Claim 1, Kido discloses that its server and stations have control CPUs ("processors," respectively 81 and 91) that execute game processing programs ("computer executable instructions") that are stored in ROM 82 or RAM 83 (for the server) and in ROM 92 or RAM 93 (for the station). Kido at [0193]. Therefore, to the extent the preamble is limiting, Kido discloses this element.

b. [Element 1] generating a first graphical user interface for presentation on a first player device of a first player;

411. Kido discloses this element for the reasons described for Claim 1, Element 4.

c. [Element 2] generating a second graphical user interface for presentation on a second player device of a second player;

412. Kido discloses this element for the reasons described for Claim 1, Element 5.

d. [Element 3] receiving first bet information for a first bet on a spin of the roulette wheel via the first graphical user interface, the first bet information corresponding to only a single first position on the roulette wheel;

413. Kido discloses this element for the reasons described for Claim 1, Element 6.

e. [Element 4] receiving second bet information for a second bet on the spin of the roulette wheel via the second graphical user interface, the second bet information corresponding to only a single second position on the roulette wheel that is different from the single first position;

414. Kido discloses this element for the reasons described for Claim 1, Element 7.

f. [Element 5] determining that the roulette wheel and the ball have been spun for the spin of the roulette wheel;

415. Kido discloses this element for the reasons described for Claim 1, Element 8.

g. [Element 6] randomly selecting a first selected position on the roulette wheel for the spin of the roulette wheel prior to the ball falling into an outcome position on the roulette wheel, wherein the first selected position is the same as the single first position;

416. Kido discloses this element for the reasons described for Claim 1, Element 9.

h. [Element 7] determining a first payout for the single first position and a second payout for the single second position for the spin of the roulette wheel, wherein the first payout is higher than the second payout;

417. Kido discloses this element for the reasons described for Claim 1, Element 10.

i. [Element 8] determining that the ball has fallen in the single first position for the spin of the roulette wheel; and

418. Kido discloses this element for the reasons described for Claim 1, Element 11.

j. [Element 9] indicating that the first player is to be paid at the first payout for the spin of the roulette wheel.

419. Kido discloses this element for the reasons described for Claim 1, Element 12.

14. Claim 18: The non-transitory computer-readable medium of claim 17, wherein the method further comprises

indicating the first selected position on a display adjacent to the roulette wheel.

420. Kido discloses this element for the reasons described for Claim 2.

15. Claim 19: The non-transitory computer-readable medium of claim 18, wherein the method further comprises comprising causing a lightning visual effect to be presented in connection with indicating the first selected position.

421. Kido discloses this element for the reasons described for Claim 3.

16. Claim 21: The non-transitory computer-readable medium of claim 17, wherein the method further comprises:

a. randomly selecting a second selected position on the roulette wheel; and

b. determining a payout for the second selected position that is different than the payout for the single first position.

422. Kido discloses these elements for the reasons described for Claim 5.

17. Claim 22: The non-transitory computer-readable medium of claim 17, wherein the method further comprises causing the ball and the roulette wheel to automatically spin.

423. Kido discloses this element for the reasons described for Claim 6.

18. Claim 23: The non-transitory computer-readable medium of claim 17, wherein the first graphical user interface includes a roulette board and wherein the method further comprises highlighting the first selected position in response to the first selected position being randomly selected.

424. Kido discloses this element for the reasons described for Claim 7.

B. Ground 2: Kido and Yee

425. In my opinion, as set forth below, claims 8, 16, and 24 of the ’014 patent are unpatentable as obvious in view of the combined disclosures of Kido and Yee.

1. Motivation to Combine Kido and Yee

426. In my opinion, a POSITA would have looked to both Kido and Yee when considering roulette gaming machines. Both Kido and Yee are in the same field of endeavor: they are both directed toward roulette gaming machines and variations of roulette involving a comparison between a randomly generated number with a number generated by a spin of a roulette wheel. Kido and Yee Abstracts. A POSITA would have understood that a number generated by a spin of a roulette wheel *is* a randomly generated number, and in view of the numerous prior art embodiments of the purported innovation in the challenged patents (*see* Section X, *supra*), a POSITA would have naturally looked to other examples or variations of those embodiments when considering roulette gaming machines and variations of roulette. Kido and Yee also both teach the benefits of increasing a player’s desire to play, such as through increased payouts. Kido at [0007]-[0008], Yee at 1:21-26. Kido and Yee also both relate to computerized roulette systems having an enhanced payout feature that is based on a randomly selected number. In addition, a POSITA 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.

427. A POSITA would have been motivated, when considering Kido's teaching of awarding privilege awards (*e.g.*, Kido at Fig. 1, Abstract), to provide improvement by visually displaying a large numeric award, as taught by Yee. Further, both Kido and Yee disclose displaying special payouts or win multipliers Kido at [0129], Yee at 10:61-67. Kido describes an objective of providing a roulette gaming device with new features for avoiding "monotonous" play and "increasing a player's game desire." Kido at [0006]-[0008]. A POSITA would have recognized that displaying the payout enhancement (as taught in Yee) would add excitement for players, and a POSITA would have been motivated to use this feature in Kido for at least this reason.

2. Claim 8: The system of claim 1, wherein the at least one hardware processor is further configured to indicate "500×" at the first selected position on a roulette board in the first graphical user interface.

428. I am informed by counsel that an indication of "500x" at a position on a roulette board in a graphical user interface is non-limiting printed matter.

429. Nevertheless, both Kido and Yee disclose "indicating" payout amounts "at" respective positions on wagering layouts. For instance, Fig. 5 of Kido and Fig. 2 of Yee both indicate the traditional roulette payout multiplier "2 to 1" for each "column" wager "at" the position on the layout corresponding to the

relevant number(s). Kido at Fig. 5, Yee at Fig. 2, EX1032 at 12. Additionally, a POSITA would be aware of several other casino games that did so, e.g., craps and sic bo.

430. Yee also specifically discloses the claimed multiplier of 500x ("500 times"). Yee at 2:19, 8:17, 9:4-6, Fig. 2 numeral 122. Yee also discloses the multiplier of 500x is used to multiply the wager amount when "the randomly generated number" (e.g., the results of a physical roulette wheel spin) "is identical to a [different] randomly generated number." Yee at 2:20-30. Yee also discloses that randomly generating a number can be performed "by activating an electronic random number generator." Yee at 4:8. Therefore, Yee discloses that a computer-generated random number can be compared to the results of a roulette spin and, if they are identical, pay a 500x multiplier. A POSITA 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 and display a 500x multiplier in Kido, as disclosed in Yee.

431. Further, a POSITA would also have known that Yee was far from the first game to disclose using a 500x multiplier. For example, as illustrated in the background section, IGT's popular Wheel of Fortune slot machine displayed a 500x award on its bonus wheel. The literal text reads only 500, not "500x," but since the listed payout serves to multiply the credit value (which may be $1, $2,

$0.25, etc), a POSITA would have understood that the payout is in fact a multiplier. Further, IGT's Wheel of Fortune literally depicts multipliers with an "x" elsewhere in its symbol set.



Wheel of Fortune wheel, excerpt[53]

432. It would have been obvious to a POSITA that, once a random multiplier has been selected, it should be displayed to the player, otherwise the player would not know what it is. Yee also discloses displaying a multiplier (e.g., 500x or 1000x) adjacent to the number needed to win it. Yee at 14:23-34, Fig. 3 (showing "multiplier" x1000 next to "number to match" 24):

[53] https://www.youtube.com/watch?v=MthxLr6sobU&ab_channel=CerealMarshmallows

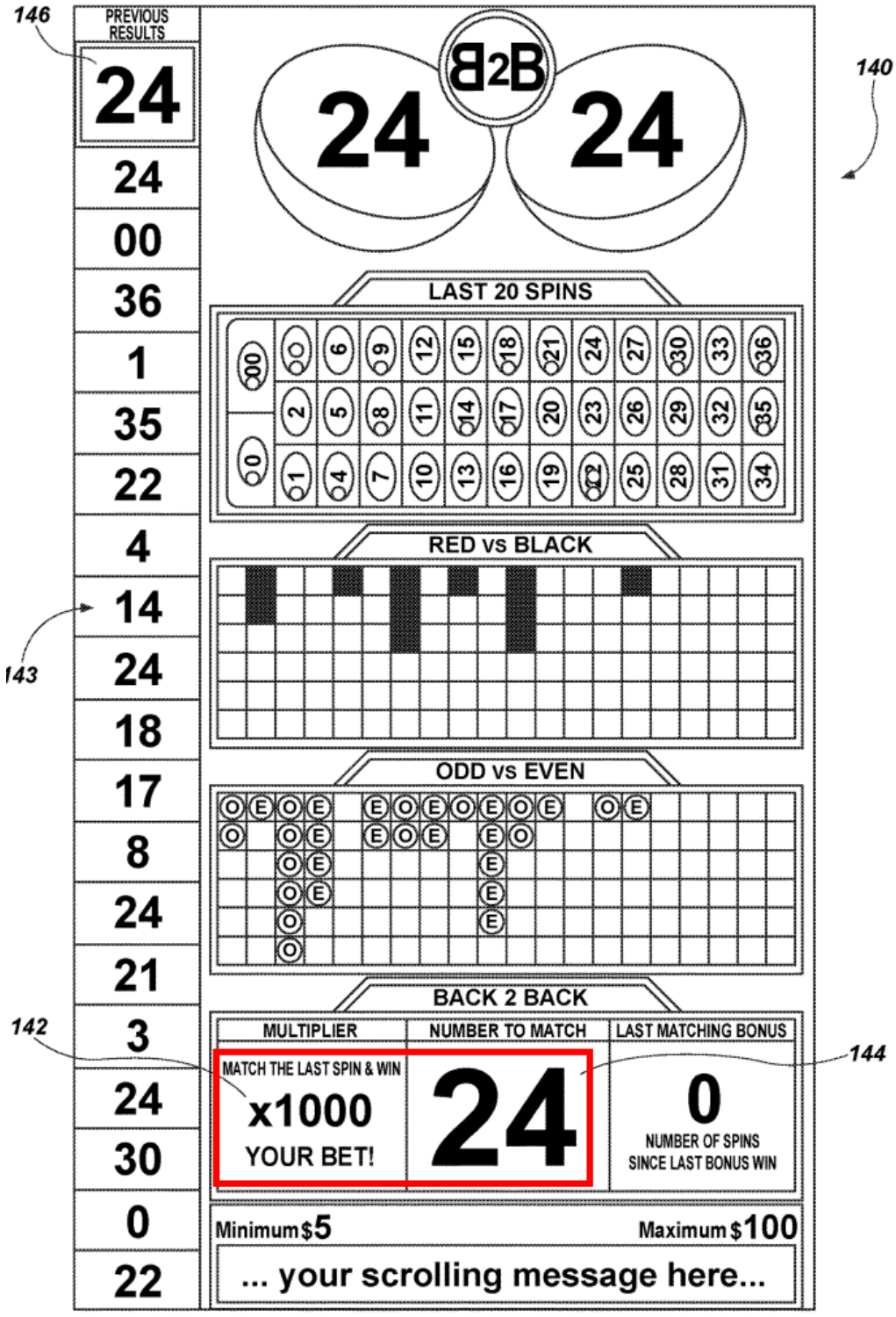


FIG. 3

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

Yee at Fig. 3 (highlighted). 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!" Yee at 13:52-56, Fig. 3.

433. I note that Yee discloses a multiplier of 1000 with the "x" before as well as after the number (e.g., "1,000x" vs. "x1000," indicating the equivalence of those written expressions. Yee at Fig. 2, numeral 126, *cf.* Yee at Fig. 3 numeral 142.

434. In view of Kido's disclosure of displaying the star mark on the roulette layout (Kido at Fig. 5 numeral 88), a POSITA would have thought it obvious to substitute or add Yee's disclosure of a multiplier 500x (Yee at Fig. 2 numeral 126, "500x") to arrive at the claimed indication. Doing so would serve two purposes: displaying to the player what the payout multiplier is, and what number is needed to win it.

435. Yee also discloses that the multiplier such as 500x may be displayed "on a common game display … in advance of displaying the game outcome [because it] adds anticipation and further enjoyment to the game." Yee at 10:61-67. Yee also discloses that "some embodiments may be implemented at locations that include a plurality of player stations [that] include an electronic display of game information" including "virtual chips [and] wagers made." Yee at 18:62-66. Yee also discloses that the game outcome in a virtual roulette game may be

"displayed at the individual player interfaces 416 or on a common display 430." Yee at 19:67-20:2. Therefore, in my opinion, a POSITA would have thought it obvious in a game with individual player interfaces to display the multiplier (such as 500x) on the individual player interface as well as, or instead of, a common game display, since doing so would similarly "add anticipation and further enjoyment to the game.

436. Yee discloses that a diagram of a playing surface 120 may be "a felt layout on a physical gaming table [] or an electronic representation on a video display … 416" Yee at 12:56-62, Figs. 2, 5A:

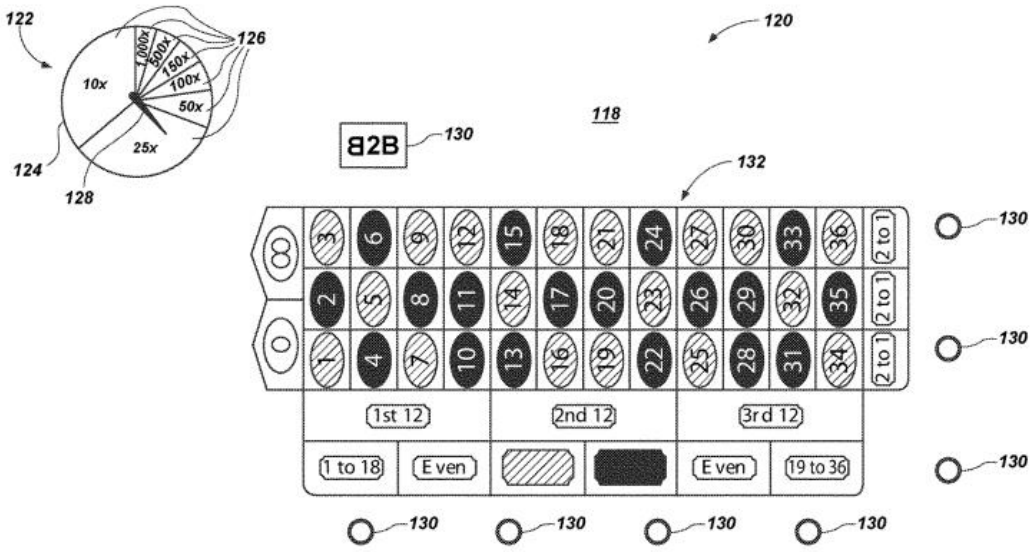


FIG. 2

Yee at Fig. 2, playing surface 120

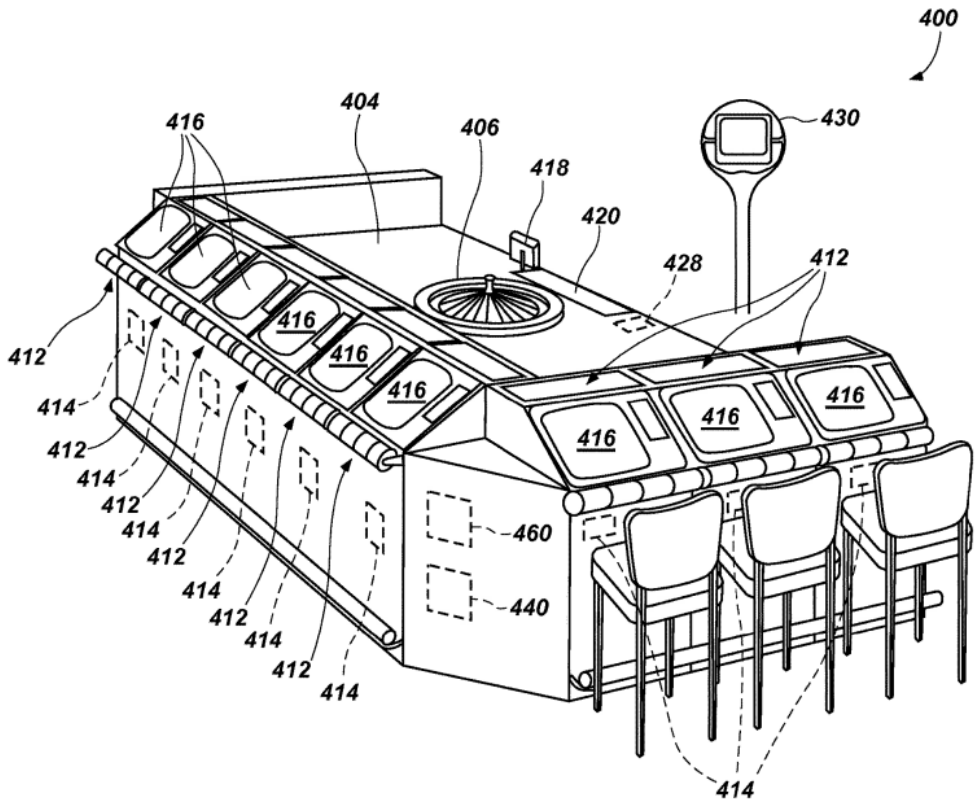


FIG. 5A

Yee at Fig. 5A, individual player interfaces numerals 416

437. When the layout 120 of Fig. 2 is displayed on an individual player interface such as 416 of Fig. 5A, a POSITA would also have found it obvious to display the multiplier on the individual player interface at the position on the layout corresponding to the target number. As described in the background section, several other casino games did the same (e.g., craps, where the payout of 30-1 is displayed at the position for the 12 (boxcars) outcome), and it would have been obvious to apply that same technique to a video version of roulette.

438. Also, Fig. 2 depicts a roulette wagering layout 120 (the claimed "roulette board") and a separate multiplier selection wheel 122, but a POSITA

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

would have appreciated that indicating the payout multiplier at the relevant position on the layout itself would enable the game designers to eliminate the separate multiplier selection wheel and thereby increase the overall size of the layout 120 on the screen, making it easier for the players to interact with the touchscreen to place wagers on that layout. For instance, this is shown in Kido Fig. 5 where the "table-type betting board 30" takes up the vast majority of the display screen.

439. Therefore, in my opinion, a POSITA would have found it obvious in view of the combination of Kido and Yee both to select and indicate a multiplier of 500x, and to indicate that multiplier at the first selected position on a roulette board in the first graphical user interface as was already known in the art. Therefore, in my opinion, the combination of Kido and Yee render this claim obvious.

3. Claim 16: The method of claim 9, further comprising indicating "500×" at the first selected position on a roulette board in the first graphical user interface.

440. In my opinion, Kido and Yee render this claim obvious for the reasons described for Claim 8.

4. Claim 24: The non-transitory computer-readable medium of claim 17, wherein the method further comprises indicating "500×" at the first selected position on a roulette board in the first graphical user interface.

441. In my opinion, Kido and Yee render this claim obvious for the reasons described for Claim 8.

C. Ground 3: Baron

442. In my opinion, as set forth below, claims 1-3, 5-7, 9-11, 13-15, 17-19, and 21-23 of the ’014 patent are unpatentable as being anticipated by Baron, or obvious in view of the disclosures of Baron.

1. Claim 1

a. [Preamble] A system for wagering, comprising

443. To the extent the preamble is limiting, Baron discloses a system for wagering. Baron discloses that “Fig. 6 is a perspective view of an illustrative table 400 configured for implementation of embodiments of wagering games according to the present disclosure.” Baron at [0078]. “The table 400 may include a plurality of player stations 412 (which) may include a separate player interface 416 (that) may be coupled respectively to its own local game processor 414.” Baron at [0080]. Further, “a central game processor 428 … 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.” Baron at [0080]. Therefore, Baron’s table 14 is a “system for wagering” as recited in the preamble of claim 1. In addition, the “memory” in Baron is a computer-readable

medium containing instructions to perform a method for wagering. Baron at [0080].

444. Baron also discloses "methods of administering wagering games for casinos and other gaming establishments, and related systems and apparatuses." Baron at [0001], *see also* Baron at Fig. 6, Fig. 9, Fig. 11, [0016], [0019]-[0020] (both "a schematic block diagram of a gaming system for implementing embodiments of wagering games"). Further, Baron at Fig. 1 is "a flowchart diagram of a method of administering a wagering game." Baron at [0011]. Baron is also titled "Methods of Administering Wagering Games of Roulette with Progressive Side Wagers." Baron at Title.

445. Therefore Baron discloses this element.

b. [Element 1] a roulette wheel;

446. Baron discloses "a roulette wheel 406 mounted into the surface 404" of the table 400. Baron at [0078], Fig. 6; *see also* Baron at [0027], [0040], Figs. 4, 7. Therefore, Baron discloses this element.

c. [Element 2] a ball configured to be used in the roulette wheel;

447. Baron also discloses "a spinning, physical roulette wheel 406 that may be configured to receive a ball or other indicator, which may come to rest in individual, separate sections with numbers and colors therein to generate a random outcome for a round of roulette." Baron at [0082], Fig. 6; *see also* Baron at [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]. Therefore, Baron discloses this element.

d. [Element 3] at least one hardware processor collectively configured to:

448. As described for the Preamble, Baron discloses that table 400 may include "a combination of individual local game processors 414 and the central game processor 428." Baron at [0080]. Baron explains that "[e]ach 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." Baron at [0080]. Baron also explains that certain embodiments use "a combination of individual local game processors 414 and the central game processor 428," and that "[e]ach 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." Baron at [0080]. The central game processor 428 and local game processors 414 disclose the claimed "at least one hardware processor." As discussed in more detail below, the game processors 414, 428 are collectively configured to implement each of the steps of this claim.

449. Baron further discloses that "Fig. 11 is a simplified block diagram showing elements of computing devices that may be used in systems and

apparatuses of this disclosure" and goes on to say that "the processors 642 may be configured as a general-purpose processor such as a microprocessor (or) any processor, controller, microcontroller, or state machine (and) may also be implemented as a combination of computing devices, such as a combination of a DSP and a microprocessor, a plurality of microprocessors, one or more microprocessors in conjunction with a DSP core, or any other such configuration." Baron at [0120]-[0122], Fig. 11 ("Processor(s) 642"). A "general-purpose processor," "microprocessor," and "microcontroller," as well as "processor(s)" depicted on a block diagram of elements of computing devices, are all disclosures of at least one "hardware processor." Therefore, Baron discloses this element.

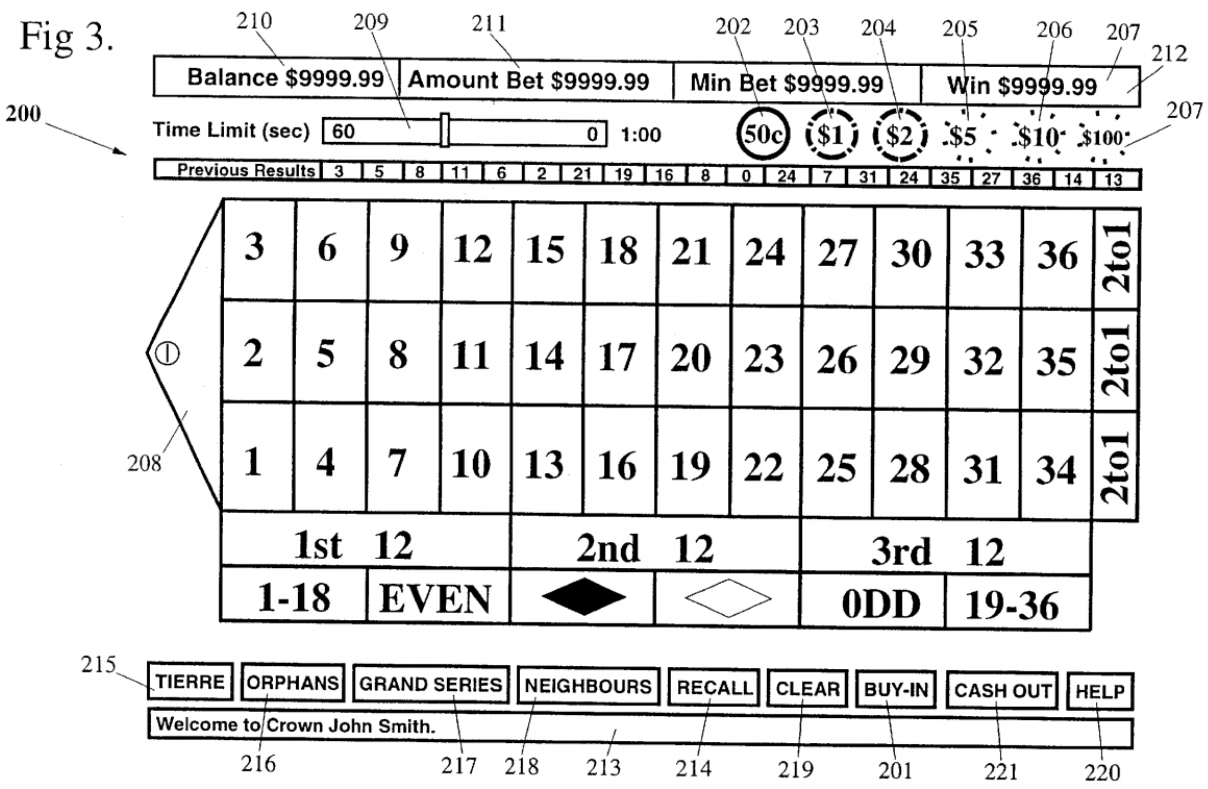
e. [Element 4] generate a first graphical user interface for presentation on a first player device of a first player;

450. Baron discloses multiple player stations 412, each of which "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." Baron at [0080]. A player interface that displays game information and includes a touchscreen is a "first graphical user interface for presentation on a first player

device of a first player." Each GUI is generated by the central game processor 428, a local game processor 414, or a combination thereof. Baron at [0080].

451. Baron further discloses that either a local game processor 414 or central game processor 428 (or both) may be coupled to the player interface, and also to "memory including one or more programs related to the rules of gameplay at the table 400." Baron at [0080].

452. Baron also cites to U.S. Pat. No. 6,659,866 to Frost and incorporates it by reference. Baron at [0084]. Fig. 3 of the Frost patent is "an example of a screen display of a player terminal of the present invention." Frost, 2:59-60:



U.S. Pat. No. 6,659,866, Fig. 3

453. Therefore, Baron discloses this element.

f. [Element 5] generate a second graphical user interface for presentation on a second player device of a second player;

454. Baron discloses that the table 400 of Fig. 6 "may include a plurality of player stations 412" each with a separate player interface. Baron at [0080], Fig. 6. Therefore, for the reasons described for Element 4, Baron discloses this element.

g. [Element 6] receive first bet information for a first bet on a spin of the roulette wheel via the first graphical user interface, the first bet information corresponding to only a single first position on the roulette wheel;

455. Baron discloses that the player interface 416 "may be used for accepting wagers." Baron at [0080]. Baron describes a method step of "accepting a wager from a player on a game of roulette and receiving indication of a predicted roulette outcome, as indicated at operation 102. … The predicted outcome may be, for example, a number from zero to thirty-six or from zero to thirty-six and double zero." Baron at [0028], Fig. 1 numeral 102. Therefore, Baron discloses that a player may make straight up bets on a roulette spin, i.e., bets on only a single first position on the roulette wheel.

456. The Frost reference, incorporated into Baron as described in Element 4, also discloses making straight up bets in roulette using a player graphical user interface. For example, Frost discloses that its "ORPHANS" bet is "a five piece wager with one piece each on: 1 straight up…" Frost at 6:22-24. Frost also

discloses that "two $5 chips, two $2 chips and a $1 chips are placed on a single location on the layout." Frost at 5:33-35. Therefore, Frost discloses that a player may choose to wager on a single position, such as 1 straight up, with one or more chips.

457. Both Baron and Frost disclose that the player's bet is "on a spin of the roulette wheel." Baron discloses that "the plurality of roulette outcomes (as indicated at operation 106 of Fig. 1) may be generated in a single round of the wagering game" and "may be generated by introducing a physical outcome identifier (e.g., a ball) into a physical spinning roulette wheel and permitting the outcome identifier to come to rest on a roulette outcome" or "may be generated utilizing a random number generator." Baron at [0039]-[0041]. Since the wager is resolved by "comparing each roulette outcome to the predicted roulette outcome" (Fig. 1, numeral 108) (i.e., the claimed single first position wagered upon), the wager is "on a spin of the roulette wheel" as claimed. *See also* Baron at [0042] ("The bonus wager may be resolved by comparing each roulette outcome to the predicted roulette outcome, as indicated at operation 108.") Similarly, Frost discloses "in roulette, players ***bet on*** where they think a ball, spun within a wheel divided into thirty seven regions marked from 0-36, will land.[54] After bets are placed, ***the wheel is spun*** and the ball is dropped onto the spinning wheel and is

[54] Frost is describing European roulette, without the 38th position numbered 00.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

allowed to move freely until coming to rest in one of the thirty seven regions of the wheel. Those players who ***bet on*** the correct number win, while those who did not, lose." Frost at 1:33-40, emphasis added.

458. Therefore, Baron discloses this element.

h. [Element 7] receive second bet information for a second bet on the spin of the roulette wheel via the second graphical user interface, the second bet information corresponding to only a single second position on the roulette wheel that is different from the single first position;

459. As described for Elements 5 and 6 above, Baron discloses multiple player stations, each with its own player GUI that players may use to make wagers including straight up bets. It is therefore inherent in the disclosure of Baron that two players can make their own different wagers, each via their own GUI, including different straight up bets (i.e., a single second position that is different from the bet placed on the single first position by the first player) on the same spin of the roulette wheel.

460. The Frost reference incorporated into Baron likewise discloses that one player can bet on the correct number and win, while another player can lose, on the same spin of the roulette wheel. Frost at 1:33-40. Therefore, Baron including Frost discloses that a second player may make a second straight up bet different from the first player's straight up bet, both bets on the same spin of the roulette wheel.

461. I understand that Patent Owner has suggested that Baron's disclosures are inapt because the player must place both a conventional and non-conventional wager. This is incorrect: Baron states that all of its wagers "may be optional." Baron at [0028], [0038]. There is no requirement in Baron that the player place both a conventional and non-conventional wager eligible for an increased payout.

462. Therefore, for the reasons described for Elements 5 and 6, Baron discloses this element.

i. [Element 8] determine that the roulette wheel and the ball have been spun for the spin of the roulette wheel;

463. As described for Elements 1 and 2, Baron discloses a roulette wheel and ball. As disclosed for Element 6, Baron discloses generating a roulette outcome using a wheel and ball. Baron at [0039]-[0040]. Baron also discloses that the roulette outcomes may be "automatically detected (e.g., using one or more sensors)." Baron at [0040]. The ability to automatically detect "roulette outcomes" as disclosed in Baron would include using the one or more processors (*i.e.*, central game processor 428, local game processors 414) to determine that the roulette wheel and the ball have been spun. The one or more processors would not be able to automatically detect where the ball lands on a spin if it had not already determined that the wheel and ball had been spun.

464. The '014 patent describes a "wheel sensor 104 [that] can detect the spinning of the wheel and the position in which the ball falls" and states that the

"sensor can be implemented in any suitable manner." '014 patent at 3:11-13. Since the sensor(s) in the '014 patent "can be implemented in any suitable manner," a POSITA would have understood the sensors in Baron as being able to determine that the wheel and ball have been spun.

465. Baron also discloses that "when an action related to … generating roulette outcomes … is described herein, and such description includes a player or croupier taking the action, … (and) the reception or detection of such an action in an electronic form where player and croupier choices, selections, or other actions are received at an electronic interface. … By way of a further example, if generating a roulette outcome is described herein, the description includes (but is not limited to) the following: introduction of a physical ball or other outcome identifier into a spinning, physical roulette wheel and permitting the ball to come to rest on a roulette outcome." Baron at [0027]. Thus, Baron discloses that when the croupier takes an action such as the action of introduction of a physical ball into a spinning roulette wheel, that action may be detected in an electronic form and received at an electronic interface by a processor.

466. Baron discloses several electronic interfaces, including player interface 416 and croupier interface 418, which are taught to include processors such as described for Element 3. Therefore Baron discloses that its processor(s) may determine that the roulette wheel and ball have been spun.

467. Baron also discloses "sensors in the physical roulette wheel 406 or [] imaging sensors configured to capture information from the physical roulette wheel." Baron also incorporates "known image extraction techniques" from U.S. Pat. No. 7,901,285 to Tran, which discloses using cameras to monitor a game, receive image information, and process that information to extract game event information. Tran at 2:16-34. Tran also discloses (and claims) "detecting by the computing device a start of a game within the game environment" and that its disclosure applies to roulette. Baron at [0111], Tran at 4:16-17 and claim 1. Since the start of a spin in roulette is when the ball has been introduced into the wheel, Baron including Tran discloses capturing this information using imaging sensors and therefore determining that the ball and wheel have been spun. Further, to the extent it is found that Baron including Tran does not disclose using an imaging sensor to determine that the ball and wheel have been spun, a POSITA would have been motivated in view of Baron including Tran to use the cameras disclosed by both references to perform multiple functions, including determining that a ball and wheel have been spun as well as determining the outcome, so as to eliminate system complexity and reduce costs. Baron at [0040].

468. The determination that the wheel and ball have been spun is "for the spin of the roulette wheel" as claimed. In the flowchart of Fig. 1, the ball and wheel are spun at step 106 (Baron at [0039]-[0041]), and the subsequent steps of

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

the process are then performed, including comparing the roulette outcomes to the predicted roulette outcome and making payouts to players. Baron at [0028], [0039], [0042]-[0045]. The processor's determination that the wheel and ball have been spun thus occurs for a spin of the wheel, as claimed.

469. Further, when players make wagers specifically ***on a spin*** of a roulette wheel as claimed (Element 6: "a first bet ***on a spin*** of the roulette wheel" and Element 7: "a second bet ***on the spin*** of the roulette wheel"), it is tautological that spinning the roulette wheel and ball to produce an outcome that resolves those wagers is done "for the spin of the roulette wheel."[55] This is confirmed by Frost, incorporated into Baron, as described for Element 6.

470. Therefore Baron discloses this element.

j. [Element 9] randomly select a first selected position on the roulette wheel for the spin of the roulette wheel prior to the ball falling into an outcome position on the roulette wheel, wherein the first selected position is the same as the single first position;

471. Baron discloses generating a plurality of roulette outcomes "in a single round of the wagering game," and that "each roulette outcome may be randomized independently from the other roulette outcomes." Baron at [0028], [0039]-[0041]. One of the roulette outcomes "may be generated by introducing a

[55] As described herein, some roulette wagers take more than one spin to resolve, therefore it is possible that a roulette number generated ***by*** an earlier spin of the wheel could also be used ***for*** a later spin as well.

physical outcome identifier (e.g., a ball) into a physical spinning roulette wheel and permitting the outcome identifier to come to rest on a roulette outcome" and another "may be generated utilizing a random number generator (e.g., operated by a control circuit)." Baron at [0039]-[0041]. These outcomes generated by the random number generator 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. Baron at [0041]. Figure 3 of Baron, which is a display layout for a "method of administering a wagering game," (Baron at [0013]), contains an outcome display area 124 that shows one primary outcome (24) and two ancillary outcomes (also 24), all three of which are for a position on the roulette wheel (24). Baron at Fig. 3. Baron thus discloses a processor electronically generating at least one roulette outcome using a random number generator, i.e., "randomly select[ing] a first selected position on the roulette wheel for the spin of the roulette wheel."

472. The randomly generated outcomes in Baron are for a spin of the roulette wheel. Baron explains that the plurality of roulette outcomes are "generated in a single round of the wagering game." Baron at [0039], [0028]. Baron's discussion of Figure 3 states that the "randomized roulette outcomes [are] for the current round of play." Baron at [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. Baron at Fig. 1. Therefore Baron discloses generating these roulette outcomes "for the spin of the roulette wheel."

473. It is inherent that if two roulette outcomes are generated in a single round, one using a computerized RNG and another using a physical ball and wheel, that the RNG-generated outcome is generated either before or after the ball being used to generate the physical outcome falls into an outcome position in the wheel. Therefore, Baron inherently discloses both possibilities.

474. Baron also discloses that a processor may automatically generate the roulette outcomes "randomly at the close of wagering or at the beginning of a new round of play." Baron at [0088]. As described herein, wagering can close at a physical roulette table after the ball has been released into the wheel, but before the ball has come to rest in a pocket (fallen into an outcome position). At the beginning of a new round of play is also before the ball has fallen into an outcome position. Therefore, Baron discloses a processor randomly generating a roulette outcome ("first selected position on the roulette wheel") prior to the ball falling into the outcome position.

475. Furthermore, a POSITA would have understood that a physical ball takes several seconds to revolve around and fall into an outcome position on a roulette wheel, while a computer takes mere milliseconds to generate a roulette outcome with an RNG. Therefore, whenever the process to generate both

outcomes starts at the same time (e.g., per Baron at [0039]-[0041] or [0088]), the RNG-generated number is necessarily selected by the processor before the ball falls into a position on the physical wheel.

476. Baron discloses that its randomly generated outcome, i.e., the claimed "first selected position," is the same as the predicted roulette outcome, i.e., the claimed "single first position." Specifically, Baron discloses "comparing each roulette outcome to the predicted roulette outcome" and paying a payout when "at least one roulette outcome is the same as the predicted roulette outcome." Baron at [0042]-[0043]. Since one of the roulette outcomes is the RNG-generated outcome described in this element (the "first selected position"), and the predicted roulette outcome is the position wagered upon in Element 6 (the "single first position"), Baron discloses that the first selected position is the same as the single first position. *See also* Baron at Fig. 3 (providing for increased payouts of 7:1, 100:1, and POT as the number of randomly generated roulette outcomes that match the predicted roulette outcome (bet) increase); Baron at [0045].

477. Baron's disclosure at [0088] cited for this element refers to table 470 (see Fig. 7), while the earlier-cited disclosures at [0080]-[0084] refer to table 400 (see Fig. 6), however Baron also teaches that its embodiments may be combined while still being within the scope of its disclosure. Baron at [0145]. To the extent it is argued that one specific embodiment in Baron does not disclose all the claim

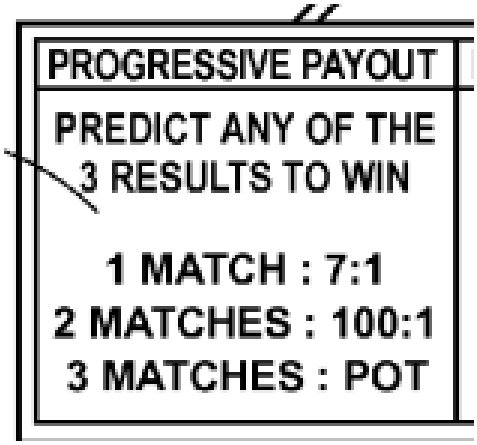
elements, it is nevertheless my opinion that it would have been obvious to a POSITA combine the disclosures of Baron with itself, since Baron expressly teaches as much. Further, to the extent a POSITA would need motivation to do so, Baron provides it. Baron at [0002]. (explaining "players are generally open to, and sometimes specifically seek out, new and more interesting ways to play roulette, particularly when the reward for a winning outcome at the end of a round of play … may be enhanced"). A POSITA would have understood that Baron's disclosures of (a) electronically generating random numbers at the close of wagering or at the beginning of a round of play, (b) comparing those electronically generated numbers to the number generated by a spin of a physical roulette wheel and ball, and (c) providing an enhanced reward when they match, is precisely the sort of "new and more interesting ways to play roulette" envisioned by Baron. Baron's approach as described herein adds an additional element of randomness to gameplay and variability in payouts compared to the rules of traditional roulette. A POSITA would have understood that new casino games tend to be more successful when they are exciting and interesting to players (as stated in Baron), and providing additional sources of award variability including the possibility of larger awards (such as 100:1 or a progressive jackpot in roulette when the largest payout in the traditional game is only 35:1) is a known way to achieve that success.

478. Therefore, Baron discloses this element.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

k. [Element 10] determine a first payout for the first single position and a second payout for the single second position for the spin of the roulette wheel, wherein the first payout is higher than the second payout;

479. As described for Element 9, Baron discloses that a roulette outcome may be generated by a random number generator as part of the process of generating the plurality of roulette outcomes in a single round of the wagering game, including "as a specific, nonlimiting example, the total number of roulette outcomes generated in a given round may be three." Baron at [0039]-[0041]. Baron explains that "an amount of the payout may increase nonlinearly as a number of roulette outcomes matching the predicted outcome increases, as further indicated at operation 110." Baron at [0045]. By way of example, Baron discloses that "the amount of the payout may be 7:1 when one of the plurality of generated outcomes is the same as one of the predicted outcomes" and "100:1 when (e.g., two roulette outcomes) are the same as one of the predicted outcomes." Baron at [0045], Fig. 3.



Baron at Fig. 3 (excerpt)

480. As described for Elements 6 and 7, two different players can make two different straight up bets in the system of Baron. Using Baron's example of three generated roulette outcomes and the payouts disclosed in Figure 3, where the first player's bet on a first single position matched three of the generated roulette outcomes, the second player's bet on a second, different single position necessarily matches none of the generated roulette outcomes (because there are only three in this specific example in Baron). Specifically, so as to put numbers on this example, Baron's Figure 3 inherently contemplates that three generated roulette outcomes may be (a) a physical wheel outcome of 24, (b) a first electronically-generated outcome of 24, and (c) a second electronically-generated outcome of 24. Thus, based on the paytable above, if the first player had wagered on 24 as the single first position, the first player's payout would be determined to be POT. Similarly, if the second player had wagered on 10 as the single second position, the second player's payout would be determined to be 0. POT is greater than (higher

than) 0, therefore Baron discloses "determine[ing] a first payout for the first single position and a second payout for the second single position … wherein the first payout is higher than the second payout."

481. As a second example, where the first player wagered on 24 and the second player wagered on 10, the system of Baron contemplates generating (a) a physical wheel outcome of 24, (b) a first electronically-generated outcome of 24, and (c) a second electronically generated outcome of 10. In that case, based on the paytable disclosed by Baron's Figure 3, the first player would win 100:1, a higher amount than the second player's winnings of 7:1. This too is an example of a first payout being higher than (greater than) the second payout.

482. Determining the first and second payouts in Baron is "for the spin of the roulette wheel." Baron discloses that a plurality of roulette outcomes can be generated "in a single round of the wagering game." Baron at [0028], [0039]. Those random numbers can be generated via a "a spinning, physical roulette wheel 406" that receives a ball in a numbered section as disclosed in table 400 in Figure 6 (Baron at [0082]), or they can be generated via a random number generator (Baron at [0041]). Regardless of which way they are generated, they are generated for a "single round" of roulette, (Baron at [0028], [0039]-[0040]) i.e., for the spin of the roulette wheel. These roulette outcomes are then compared to the player's predicted roulette outcome to determine whether the player wins, and if so, how

much. Baron at [0028], [0039], [0042], [0045]. Therefore, the first and second payout are for "[a] spin of the roulette wheel."

483. Furthermore, and as described for Element 3, Baron's table 400 relies on processors "operably coupled to memory including one or more programs related to the rules of game play at the table 400." Baron at [0080]. Baron also discloses that "the term 'wager' includes any form of wagering value, including … virtual representations of money in the form of electronic authorizations of a transfer of money … digital representations of chips, numerical quantities of money," etc. Baron at [0026]. Further, Baron discloses that "when an action related to … ***making payouts*** … is described herein … the results of the action may be computer generated." Baron at [0027], emphasis added. Taken together, Baron thus discloses that the claimed processor may evaluate wager outcomes based on the players' wagers as compared with the generated roulette outcomes and calculate ("determine") the payouts for the first and second players.

484. Alternatively, the first player's bet on a first single position may match two of the generated roulette outcomes and the second player's bet on a second, different single position may not match any (that is, the second player's bet loses). In the example above of three generated outcomes being 24, 24, and 10, if the first player had wagered on 24 and the second player wagered on 6, the payout

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

to the first player would be determined to be 100:1, greater than the payout to the second player of zero.

485. Therefore Baron discloses this element.

486. I understand that Patent Owner has suggested that Baron's disclosures are inapt because it discusses making a payout from a "progressive pot." This is incorrect. As a first matter, the applied teaching of Baron herein relates to fixed payouts (e.g., 100:1 and 7:1 are both fixed payouts), not progressive ones, and Baron does not require multiple spins to payout the progressive pot. Second, Baron expressly discloses that the house bank can cover the fixed payouts: "the progressive pot may be seeded from the rake account of the house" in an amount "at least as great as the maximum fixed odds payout awardable from the progressive pot for any winning scenario. For example, the amount seeded to the progressive pot may be greater than the number of participating players multiplied by the greatest fixed odds payout winnable from the progressive pot." Baron at [0047]. Thus, Baron discloses that the fixed payouts depicted in Fig. 3 can be banked by the house, just like every other traditional roulette wager. Third, the claim language does not recite or relate to progressive payouts or fixed payouts, only that a first payout is higher than a second payout, and Baron discloses that relationship. Fourth, nothing in the specification of the challenged patents discloses progressive payouts or relates to any purported distinction between

progressive and fixed payouts. Therefore, any suggestion that the challenged claims should be limited in this way is not supported by the specification.

l. [Element 11] determine that the ball has fallen in the single first position for the spin of the roulette wheel; and

487. As described for Elements 8, 9 and 10, Baron discloses generating roulette outcomes, including by using a physical ball and roulette wheel, in a single round of the wagering game. Specifically, Baron discloses "a physical outcome identifier (e.g., a ball)" and "the outcome identifier may come to rest on a roulette outcome, and the roulette outcome may be … automatically detected (e.g., using one or more sensors) and conveyed to a control circuit." Baron at [0040]. The roulette outcomes are generated "in a single round of the wagering game." Baron at [0028], [0039]. Therefore, Baron discloses a processor configured to determine that the ball has fallen into a position for the spin of the roulette wheel.

488. Baron also discloses "comparing each roulette outcome to the predicted roulette outcome" and "each roulette outcome generated in a given round of play may be compared to the roulette outcome or roulette outcomes predicted for that round … by electronically comparing detected (e.g., using sensors) or entered (e.g., utilizing a croupier interface) roulette outcomes stored in memory utilizing a control circuit." Baron at [0042]. As described for Element 6, Baron discloses a first player making a straight up bet on a single first position, which is a

predicted roulette outcome. Baron expressly discloses a scenario "when one generated roulette outcome matches one of the predicted roulette outcomes" and "when two generated roulette outcomes match each other and one of the predicted roulette outcomes." Baron at [0043]. Therefore, Baron discloses determining that the ball has fallen into the single first position (the position wagered upon/predicted by the first player) for the spin of the roulette wheel.

489. Therefore, Baron discloses this element.

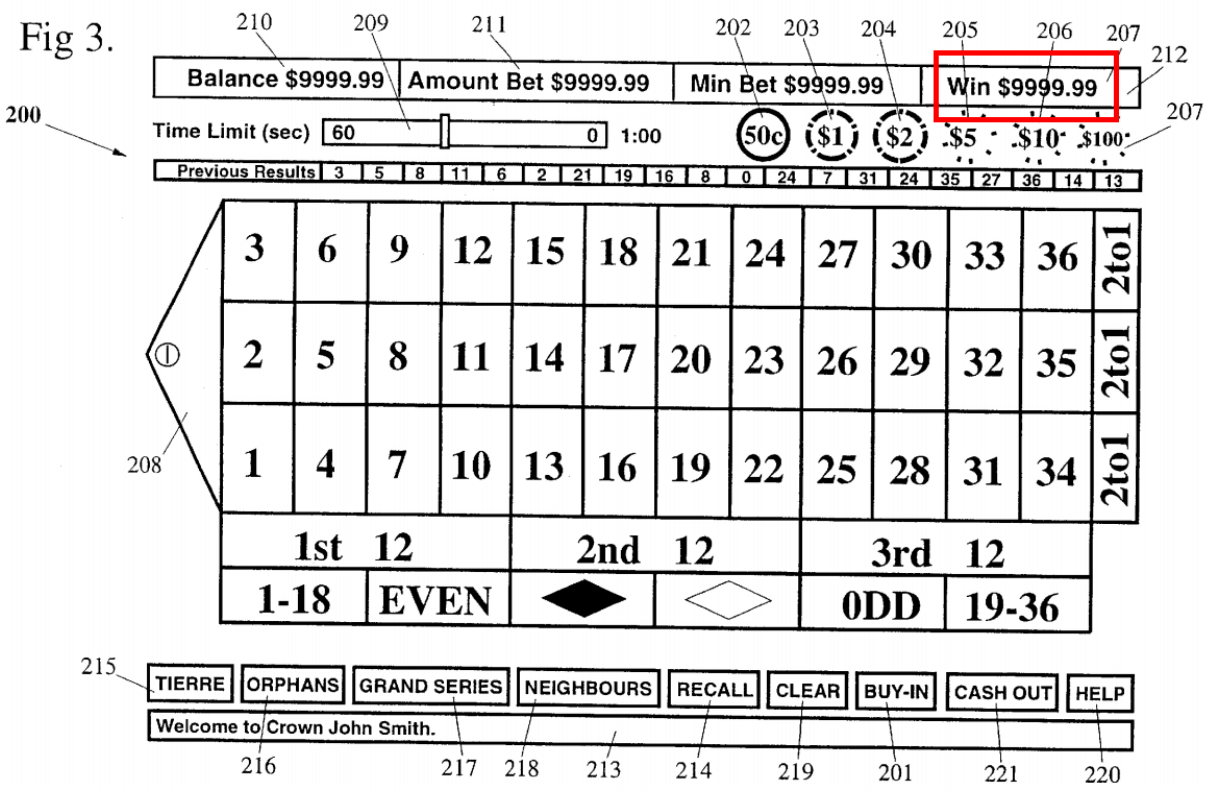
m. [Element 12] indicate that the first player is to be paid at the first payout for the spin of the roulette wheel.

490. Baron discloses an "electronic display" which can "include a progressive pay table area 122, which may be, for example, a section of a display electronically showing the potential payouts from the bonus wager." Baron at [0058], Figure 3; *see also* [0059], [0060], [0067], [0069]. Baron further states that the payout is made if the predicted roulette outcome matches at least one randomly generated roulette outcome, all of which are randomly generated in a single round of the game, i.e., for a spin of the roulette wheel. Baron at [0028], [0039], [0042], [0048]. Thus, Baron explains that the first player is to be paid at the first payout "for the spin of the roulette wheel."

491. Further, Baron discloses indicating the first payout by "crediting a player account with funds from the game pot" or where "wagers and balance adjustments during game play may be performed using virtual chips." Baron at

[0046], [0082]. Further, Baron discloses "the result of [an action related to making payouts] may be computer generated and may be displayed on a live or virtual table or electronic display." Baron at [0027]. Baron discloses that one such electronic display is "player interface 416, which may be used for accepting wagers and displaying game information (e.g., … game outcomes)." Baron at [0080]. Because Baron's player interface 416 is controlled by one or more processors, Baron discloses a processor configured to indicate that the first player is to be paid at the first payout for the spin of the roulette wheel.

492. Furthermore, as described for Element 4, the Frost reference incorporated into Baron discloses a player interface that displays win amounts, thereby indicating "that the first player is to be paid":



Frost, Fig. 3, highlighted

493. Therefore Baron discloses this element.

494. For the reasons herein, it is my opinion that Baron discloses each element of claim 1 of the ’014 patent.

495. To the extent it is found that any element is not disclosed expressly or inherently, it is my opinion that Baron renders obvious such element for the reasons expressed herein.

2. Claim 2: The system of claim 1, further comprising a display adjacent to the roulette wheel that indicates the first selected position.

496. Baron discloses an “electronic display” such as “separate display 430” that “may be used for display of … information regarding the wagering game

(including) current round information ... as described previously in connection with FIGS. 2 and 3." Baron at [0079], *see also* [0080], [0083], [0087]. Baron's Fig. 3 discloses a display that indicates the plurality of generated roulette outcomes, including a roulette outcome that corresponds to the first selected position of Element 9 in claim 1. Insofar as the "primary outcome" depicted in Fig. 3 is the outcome generated via physical ball and wheel, the other two outcomes (when selected by a computerized RNG) are examples of a first selected position:

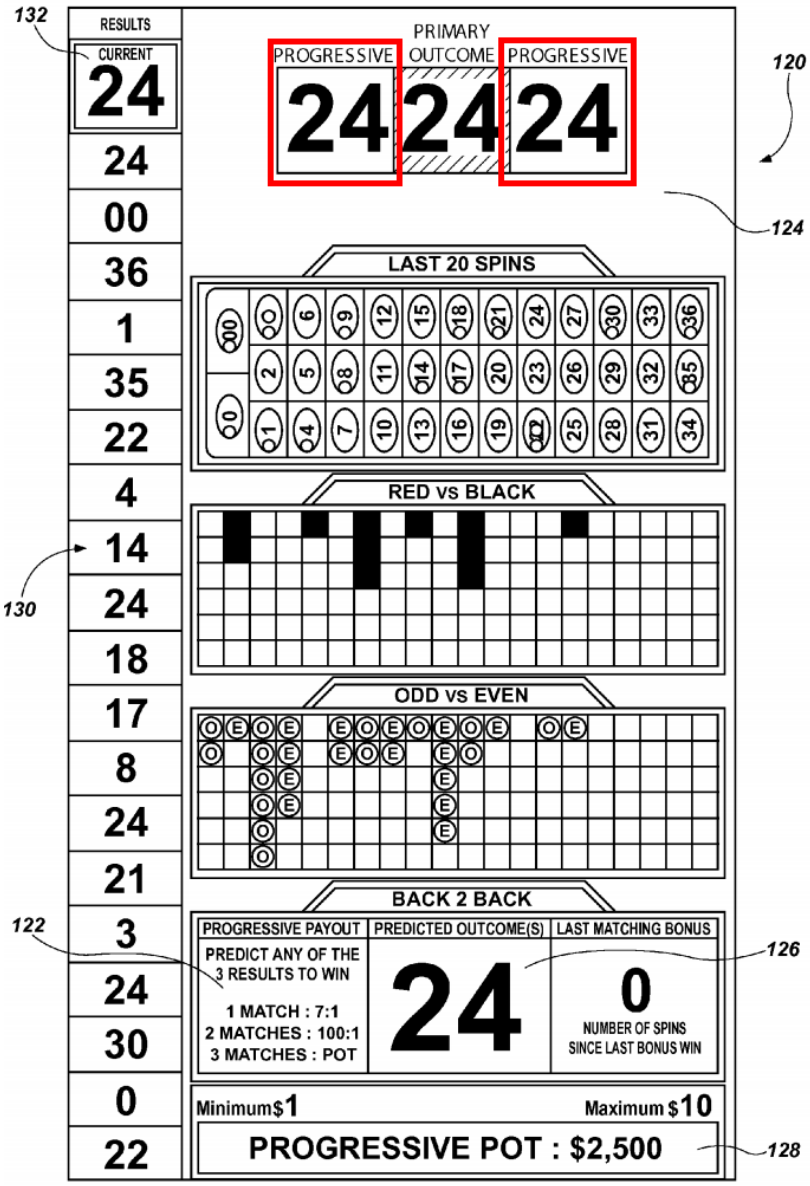


FIG. 3

Baron at Fig. 3, highlighted

497. Baron discloses that the display 430 is adjacent to the roulette wheel, as depicted in Figs. 6 and 7:

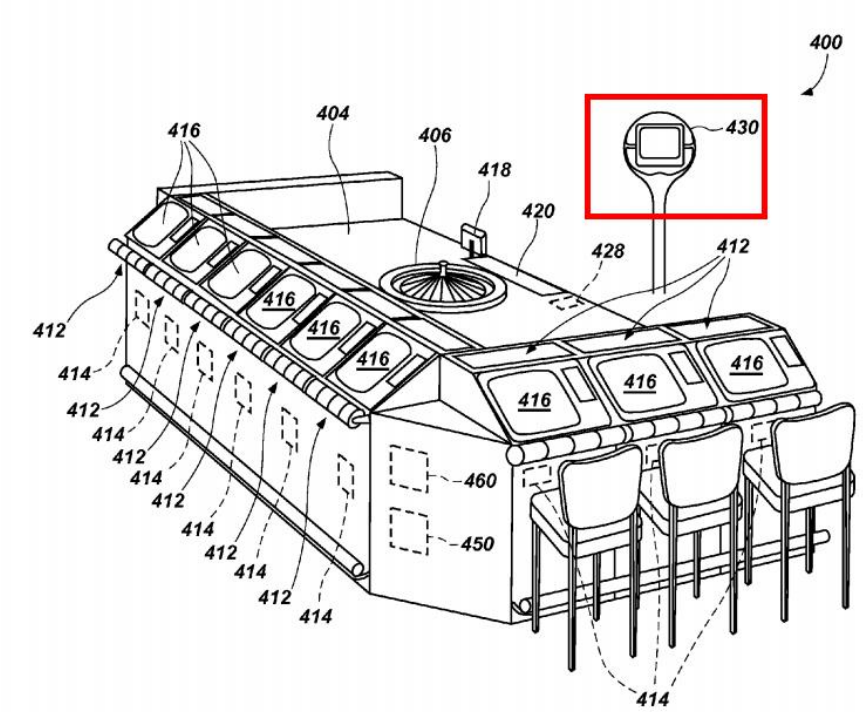


FIG. 6

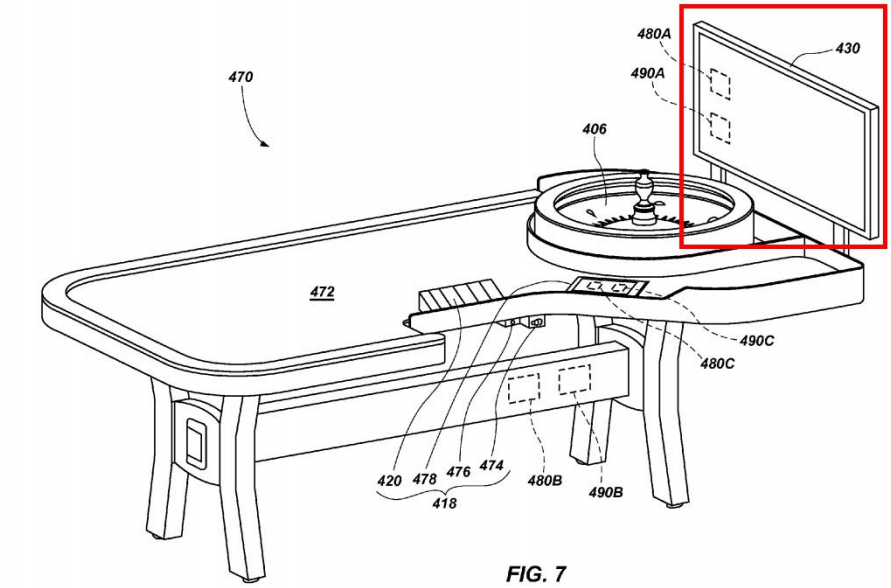


FIG. 7

Baron at Figs. 6 and 7, highlighted

498. Although the claim is not so limited, Baron discloses that a processor may both generate a random roulette outcome (the "first selected position") and

control the display of information on the video display 430, including winning game conditions associated with the random game outcomes (which necessarily includes indicating what those outcomes are). Baron at [0087], [0088].

499. Therefore Baron discloses this element.

3. Claim 3: The system of claim 2, wherein the at least one hardware processor is further configured to cause a lightning visual effect to be presented in connection with indicating the first selected position.

500. I am informed by counsel that a "lightning visual effect (that is) presented in connection with indicating the first selected position" is non-limiting printed matter.

501. Regardless, in my opinion it would have been obvious to a POSITA to add a lightning visual effect to the indication of the first selected position (randomly generated roulette outcome), for several reasons.

502. First, Baron discloses player interfaces 416 and the common display 430 that can display game information, which includes "a wide variety of other information considered useful to the players." Baron at [0080], [0083]. Baron also discloses and "outcome display area 124" where three, independently randomized roulette outcomes for the current round of play may be displayed." Baron Fig. 3, [0058]. To a POSITA, it would have been an obvious and elementary design choice to display a visual effect in conjunction with the displayed randomized

outcomes, including a lightning visual effect, because it would excite the player and induce them to continue playing roulette.

503. Second, Baron incorporates the disclosure of U.S. Pat. Appl. 13/631,598 to Baron and Haushalter by reference. Baron at [0042]. That reference, published April 3, 2014 as U.S. Pat. Pub No. 2014/0094244, names inventors Gabriel Baron (the same inventor as the "Baron" reference) and Todd Haushalter (the sole listed inventor on the challenged patents). The '244 publication discloses a "hot bet field" that displays a message to players, including information relating to a highest ranking roulette event, an animation or other appropriate graphics, or an "attract" message such as "money (bills, coins) falling from the sky, bricks of gold bullion stacking into a pyramid, a treasure chest opening and spilling gold coins, etc." '244 publication at [0045], [0054], [0056]. Further, displaying a message may "convey[] an urgency to players that 24 is currently the 'hot' number." '244 publication at [0055]. A POSITA would therefore have understood that Baron (including the '244 publication) discloses that messages displayed on a display can convey urgency, attraction, animation, and information about game events, or a combination thereof. Given this, a POSITA would have found it obvious to use an animation, such as a lightning visual effect, to indicate or attract a player's attention to information on a display, such as the selection of a first selected position as claimed.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

504. Third, the Frost reference incorporated by Baron discloses that its player terminal may cause a flashing visual effect to be presented in connection with indicating winning positions, and that its player terminals comprise "Pentium PCs" (a POSITA would have known that Pentium was a family of hardware processors sold by Intel). Frost at 4:62-5:3, 5:55-60. A POSITA would have found it obvious to apply a visual effect to the generated roulette numbers as well, to enhance the anticipation of the players.

505. Further, a POSITA would have known about lightning visual effects used in many prior art games, including the Lightning Link slot machine games, as described herein with respect to my analysis of Claim 3 for Ground 1. As described above for Claim 2, Baron discloses a display that indicates the first selected position, and a POSITA would have been motivated to add such a well-known lightning visual effect to the display of "the information described previously in connection with FIGS. 2 and 3 and any other information considered useful to the players, including acceptance of wagers, game outcomes, wager outcomes, payout multipliers, historical game outcome data, and other information, in real-time." Baron at [0085]. For example, a POSITA would have appreciated that adding the well-known lightning visual effect to a real-time display of a randomly generated game outcome such as depicted on Fig. 3 and displayed on display 430 would draw the players' attention to the information, and would serve

as an obvious substitute for (or addition to) a flashing visual effect such as disclosed by Frost, or a message or animation as disclosed by the '244 publication to Baron and Haushalter. Baron at [0083], Frost at 5:55-60, '244 publication at [0054]-[0056].

506. Therefore, in my opinion, Baron (including Frost) renders this element obvious.

4. Claim 5: The system of claim 1, wherein the at least one hardware processor is further configured to:

a. randomly select a second selected position on the roulette wheel; and

b. determine a payout for the second selected position that is different than the payout for the single first position.

507. As described for Elements 9 and 10 of claim 1, Baron discloses that a processor generates a plurality of roulette outcomes, which means Baron discloses randomly selecting a second selected position as well as a first selected position. Baron also discloses that a player whose prediction matches two outcomes (meaning two of the outcomes were the same) such as a first selected position of 24 has a higher payout (a payout of 100:1) than a player whose prediction matches only one of the outcomes such as a second selected position of 10 (a payout of 7:1). Baron at [0045], Fig. 3. The payout of 7:1 for the second selected position of 10 is different than the payout of 100:1 for the single first position.

508. Therefore, and for the reasons described for Elements 9 and 10 of claim 1, Baron discloses these elements.

509. To the extent Baron is found not to literally disclose these elements, in my opinion a POSITA would have found it obvious that payouts for different outcomes in a gambling game may be different, as such payout behavior was well-known in the prior art. *See* Section IX.E, *supra*.

5. Claim 6: The system of claim 1, wherein the at least one hardware processor is further configured to cause the ball and the roulette wheel to automatically spin.

510. 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." Baron at [0088]; *see also* Baron at [0068], [0027]. A POSITA would understand that "actions" to be performed automatically for administering a wagering game, as referenced in Baron, would include causing the ball and roulette wheel to spin, as that is a required step in any roulette game with a ball and wheel. Similarly, a POSITA would have recognized the benefits of using the hardware processors disclosed in Baron to achieve these automatic actions, and thus would have immediately envisioned using the processors in Baron in such a way.

511. Baron also discloses that a ball "may be automatically introduced into the roulette wheel." Baron at [0068]. The '244 publication to Baron and Haushalter, incorporated into Baron, further discloses that "a roulette wheel may include any one or combination of an actual physical roulette wheel, a roulette wheel implemented with computer software, or a roulette wheel implemented with an electric circuit. Also, a roulette wheel spin may include spinning an actual roulette wheel manually or automatically, launching a ball manually or automatically, or obtaining a spin result through a computer software or electric circuit implemented roulette spin." '244 publication at [0034].

512. Therefore Baron (including the '244 publication) discloses this element.

6. Claim 7: The system of claim 1, wherein the first graphical user interface includes a roulette board and wherein the at least one hardware processor is further configured to highlight the first selected position in response to the first selected position being randomly selected.

513. As described for claim 1, Element 4, Baron discloses (and incorporates the Frost reference that discloses) that the first graphical user interface includes a roulette board or "layout". Baron at [0066], [0054], Fig. 2 numeral 112,

514. Baron also discloses that "when an electronic display is provided … the display may include a touchscreen and be used for the 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)." Baron at [0079]. One such electronic display is the touchscreen described in the player interface 416. Baron at [0080].

515. Figure 2 in Baron 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 …. In some embodiments, the playing surface 112 may include an area for electronically showing the outcome of randomly generated roulette outcomes …." Baron at [0056]. 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." Baron at [0057].

516. The wagering area 118 of Figure 2—and the similar depiction of the "last 20 spins" section on the display layout 120 of Figure 3—is a "roulette board," as claimed. While Baron states that the roulette layout in Figure 2 may be implemented on an "electronic display," (Baron at [0054]), Baron does not explicitly state that it is presented on a player interface 416. However, a POSITA would have found it obvious to implement the roulette wagering layout in Figure 2 on the touchscreen of Baron's player interface since Baron discloses that the player interfaces 416 are "used for accepting wagers and displaying game information

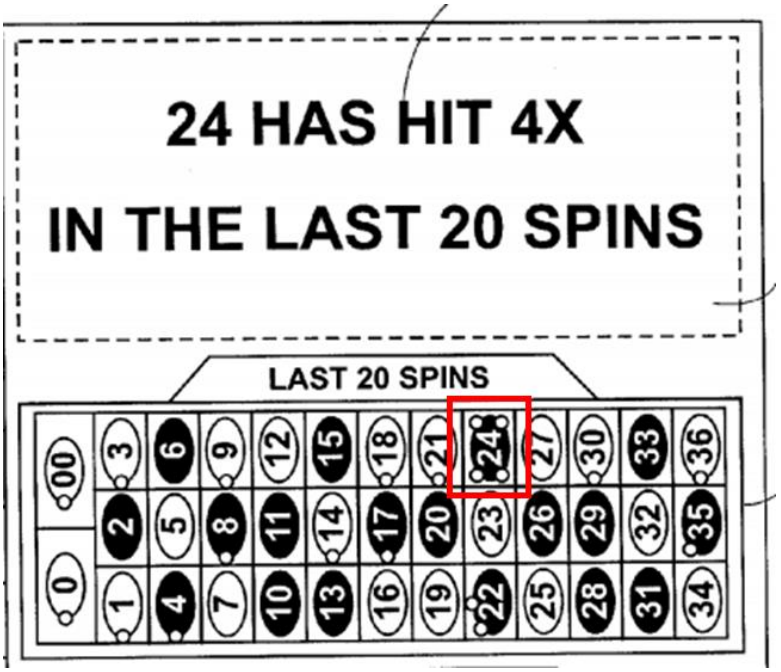
(e.g., game instructions, input options, wager information including virtual chips, game outcomes, etc.)," and the wagering area 118 is "configured for acceptance of … roulette bets." Baron at [0056], [0080].

517. In Baron, 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. Baron at [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 POSITA 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.

518. Additionally, as described for claim 2, Baron discloses that the generated roulette outcomes (including the first selected position) may be displayed in large numbers in "outcome display area 124" as depicted at the top of Fig. 3. Baron at [0058]. Baron therefore discloses displaying the first selected position in a prominent area (i.e., "highlighted") in response to the first selected position being randomly selected.

519. Further, the Frost reference discloses that "the player terminal will flash" certain locations on the betting layout, which is disclosure of "highlighting." Frost at 5:55-60. Further, the '244 reference to Baron and Haushalter discloses

indicating a recently-generated roulette outcome with a dot on the betting layout, for example indicating that "24 has hit 4x in the last 20 spins" with four dots on the betting position for 24 on the roulette layout. '244 reference at [0054], Fig. 3B:



'244 Reference at Fig. 3B

520. It would therefore at least have been obvious to a POSITA to indicate the plurality of generated numbers of Baron on the layout of its player interface as in Frost or the '244 reference.

7. Claim 9

a. [Preamble] A method for wagering, comprising:

521. As described for Claim 1, Baron discloses a method for wagering. Therefore, to the extent the preamble is limiting, Baron discloses this element.

b. [Element 1] generating, using at least one hardware processor, a first graphical user interface for presentation on a first player device of a first player;

522. Baron discloses this element for the reasons described for Claim 1, Element 4.

c. [Element 2] generating, using the least one hardware processor, a second graphical user interface for presentation on a second player device of a second player;

523. Baron discloses this element for the reasons described for Claim 1, Element 5.

d. [Element 3] receiving, using the at least one hardware processor, first bet information for a first bet on a spin of the roulette wheel via the first graphical user interface, the first bet information corresponding to only a single first position on the roulette wheel;

524. Baron discloses this element for the reasons described for Claim 1, Element 6.

e. [Element 4] receiving, using the least one hardware processor, second bet information for a second bet on the spin of the roulette wheel via the second graphical user interface, the second bet information corresponding to only a single second position on the roulette wheel that is different from the single first position;

525. Baron discloses this element for the reasons described for Claim 1, Element 7.

f. [Element 5] determining, using the least one hardware processor, that the roulette wheel and the ball have been spun for the spin of the roulette wheel;

526. Baron discloses this element for the reasons described for Claim 1, Element 8.

g. [Element 6] randomly selecting, using the least one hardware processor, a first selected position on the roulette wheel for the spin of the roulette wheel prior to the ball falling into an outcome position on the roulette wheel, wherein the first selected position is the same as the single first position;

527. Baron discloses this element for the reasons described for Claim 1, Element 9.

h. [Element 7] determining, using the least one hardware processor, a first payout for the single first position and a second payout for the single second position for the spin of the roulette wheel, wherein the first payout is higher than the second payout;

528. Baron discloses this element for the reasons described for Claim 1, Element 10.

i. [Element 8] determining, using the least one hardware processor, that the ball has fallen in the single first position for the spin of the roulette wheel; and

529. Baron discloses this element for the reasons described for Claim 1, Element 11.

j. [Element 9] indicating, using the least one hardware processor, that the first player is to be paid at the first payout for the spin of the roulette wheel.

530. Baron discloses this element for the reasons described for Claim 1, Element 12.

8. Claim 10: The method of claim 9, further comprising indicating the first selected position on a display adjacent to the roulette wheel.

531. Baron discloses this element for the reasons described for Claim 2.

9. Claim 11: The method of claim 10, further comprising causing a lightning visual effect to be presented in connection with indicating the first selected position.

532. Baron discloses this element for the reasons described for Claim 3.

10. Claim 13: The method of claim 9, further comprising:

a. randomly selecting a second selected position on the roulette wheel; and

b. determining a payout for the second selected position that is different than the payout for the single first position.

533. Baron discloses these elements for the reasons described for Claim 5.

11. Claim 14: The method of claim 9, further comprising causing the ball and the roulette wheel to automatically spin.

534. Baron discloses this element for the reasons described for Claim 6.

12. Claim 15: The method of claim 9, wherein the first graphical user interface includes a roulette board and further comprising highlighting the first selected position in

response to the first selected position being randomly selected.

535. Baron discloses this element for the reasons described for Claim 7.

13. Claim 17

a. [Preamble] 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, the method comprising:

536. Baron discloses this element for the reasons described for Claim 1, Preamble. The "memory including one or more programs related to the rules of game play" disclosed in Baron at [0080] is disclosure of this element. Further, Baron discloses "memory 646 [that] may be used to hold computing instructions, data, and other information for performing a wide variety of tasks including administering wagering games of the present disclosure" and may be any of a number of known types of computer memory including SRAM, DRAM, ROM, Flash, etc. Baron at [0124]. Baron also discloses that any feature from one disclosed embodiment (including this memory) may be combined with features with another disclosed embodiments, such as those described for Claims 1 or 9. Baron at [0145]. Therefore, to the extent the preamble is limiting, Baron discloses this element.

b. [Element 1] generating a first graphical user interface for presentation on a first player device of a first player;

537. Baron discloses this element for the reasons described for Claim 1, Element 4.

c. [Element 2] generating a second graphical user interface for presentation on a second player device of a second player;

538. Baron discloses this element for the reasons described for Claim 1, Element 5.

d. [Element 3] receiving first bet information for a first bet on a spin of the roulette wheel via the first graphical user interface, the first bet information corresponding to only a single first position on the roulette wheel;

539. Baron discloses this element for the reasons described for Claim 1, Element 6.

e. [Element 4] receiving second bet information for a second bet on the spin of the roulette wheel via the second graphical user interface, the second bet information corresponding to only a single second position on the roulette wheel that is different from the single first position;

540. Baron discloses this element for the reasons described for Claim 1, Element 7.

f. [Element 5] determining that the roulette wheel and the ball have been spun for the spin of the roulette wheel;

541. Baron discloses this element for the reasons described for Claim 1, Element 8.

g. [Element 6] randomly selecting a first selected position on the roulette wheel for the spin of the roulette wheel prior to the ball falling into an outcome position on the roulette wheel, wherein the first selected position is the same as the single first position;

542. Baron discloses this element for the reasons described for Claim 1, Element 9.

h. [Element 7] determining a first payout for the single first position and a second payout for the single second position for the spin of the roulette wheel, wherein the first payout is higher than the second payout;

543. Baron discloses this element for the reasons described for Claim 1, Element 10.

i. [Element 8] determining that the ball has fallen in the single first position for the spin of the roulette wheel; and

544. Baron discloses this element for the reasons described for Claim 1, Element 11.

j. [Element 9] indicating that the first player is to be paid at the first payout for the spin of the roulette wheel.

545. Baron discloses this element for the reasons described for Claim 1, Element 12.

14. Claim 18: The non-transitory computer-readable medium of claim 17, wherein the method further comprises indicating the first selected position on a display adjacent to the roulette wheel.

546. Baron discloses this element for the reasons described for Claim 2.

15. Claim 19: The non-transitory computer-readable medium of claim 18, wherein the method further comprises comprising causing a lightning visual effect to be presented in connection with indicating the first selected position.

547. Baron discloses this element for the reasons described for Claim 3.

16. Claim 21: The non-transitory computer-readable medium of claim 17, wherein the method further comprises:

a. randomly selecting a second selected position on the roulette wheel; and

b. determining a payout for the second selected position that is different than the payout for the single first position.

548. Baron discloses these elements for the reasons described for Claim 5.

17. Claim 22: The non-transitory computer-readable medium of claim 17, wherein the method further comprises causing the ball and the roulette wheel to automatically spin.

549. Baron discloses this element for the reasons described for Claim 6.

18. Claim 23: The non-transitory computer-readable medium of claim 17, wherein the first graphical user interface includes a roulette board and wherein the method further comprises highlighting the first selected position in response to the first selected position being randomly selected.

550. Baron discloses this element for the reasons described for Claim 7.

D. Ground 4: Baron and Yee

551. In my opinion, as set forth below, claims 8, 16, and 24 of the '014 patent are unpatentable as obvious in view of the combined disclosures of Baron and Yee.

1. Motivation to Combine Baron and Yee

552. In my opinion, a POSITA would have looked to both Baron and Yee when considering roulette gaming machines. Both Baron and Yee are in the same field of endeavor: they are both directed toward roulette gaming machines and variations of roulette involving a comparison between a randomly generated number with a number generated by a spin of a roulette wheel. Baron and Yee Abstracts. A POSITA would have understood that a number generated by a spin of a roulette wheel *is* a randomly generated number, and in view of the numerous prior art embodiments of the purported innovation in the challenged patents (*see* Section X, *supra*), a POSITA would have naturally looked to other examples or variations of those embodiments when considering roulette gaming machines and variations of roulette. Baron and Yee also both teach the benefits of increasing a

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

player's desire to play, such as through increased payouts. Baron at [0002], Yee at 1:21-26. Baron and Yee also both relate to computerized roulette systems having an increased payout feature that is based on a randomly selected number. In addition, a POSITA 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.

553. Furthermore, Baron and Yee were both filed by the same company, both depict several of the same or very similar figures (e.g., Baron Fig. 3 vs. Yee Fig. 3; Baron Fig. 6 vs. Yee Fig. 5A; Baron Fig. 5 vs. Yee Fig. 4; Baron Fig. 7 vs. Yee Fig. 5B; Baron Fig. 8 vs. Yee Fig. 6), and both describe "step 108" as a way to resolve their respective wagers by comparing roulette outcomes and by incorporating techniques disclosed in U.S. patent application 13/631,598 (which also names Gabriel Baron (inventor of the "Baron" reference) as an inventor). In short, Baron and Yee are two roulette gaming systems produced by the same casino game development organization and a POSITA would naturally have considered them together when reviewing the prior roulette-related art.

554. A POSITA would have been motivated, when considering Baron's disclosure of an increased payout (e.g., Baron at Fig. 3, [0045]), to provide improvement by visually displaying a large numeric award, as taught by Yee. Further, both Baron and Yee describe that "players are generally open to, and

sometimes specifically seek out, new and more interesting ways to play roulette." Baron at [0002]. Yee at 1:21-26. A POSITA would have recognized that displaying the payout enhancement (as taught in Yee) would add excitement for players, and a POSITA would have been motivated to use this feature in Baron for at least this reason.

2. Claim 8: The system of claim 1, wherein the at least one hardware processor is further configured to indicate "500×" at the first selected position on a roulette board in the first graphical user interface.

555. I am informed by counsel that an indication of "500x" at a position on a roulette board in a graphical user interface is non-limiting printed matter.

556. Nevertheless, both Baron and Yee disclose "indicating" payout amounts "at" respective positions on wagering layouts. For instance, Fig. 2 of Baron and Fig. 2 of Yee both indicate the traditional roulette payout multiplier "2 to 1" for each "column" wager "at" the position on the layout corresponding to the relevant number(s). Baron at Fig. 2; Yee at Fig. 2, EX1032 at 12.

557. Yee also specifically discloses the claimed multiplier of 500x ("500 times"). Yee at 2:19, 8:17, 9:4-6, Fig. 2 numeral 122. Yee also discloses the multiplier of 500x is used to multiply the wager amount when "the randomly generated number" (e.g., the results of a physical roulette wheel spin) "is identical to a [different] randomly generated number." Yee at 2:20-30. Yee also discloses that randomly generating a number can be performed "by activating an electronic

random number generator." Yee at 4:8. Therefore, Yee discloses that a computer-generated random number can be compared to the results of a roulette spin and, if they are identical, pay a 500x multiplier. A POSITA 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 and display a 500x multiplier in Baron, as disclosed in Yee.

558. A POSITA would also have known that Yee was far from the first game to disclose using a 500x multiplier. For example, as illustrated in the background section, IGT's popular Wheel of Fortune slot machine displayed a 500x award on its bonus wheel. The literal text reads only 500, not "500x," but since the listed payout serves to multiply the credit value (which may be $1, $2, $0.25, etc), a POSITA would have understood that the payout is in fact a multiplier. Further, IGT's Wheel of Fortune literally depicts multipliers with an "x" elsewhere in its symbol set.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003



Wheel of Fortune wheel, excerpt[56]

559. It would have been obvious to a POSITA that, once a random multiplier has been selected, it should be displayed to the player, otherwise the player would not know what it is. As described for Element 10 of claim 1, Baron discloses displaying multipliers of 7:1 or 100:1 adjacent to the number needed to win. Baron at Fig. 3 (showing 7:1 or 100:1 next to "predicted outcome" 24). Yee also discloses displaying a multiplier (e.g., 500x or 1000x) adjacent to the number needed to win it. Yee at 14:23-34, Fig. 3 (showing "multiplier" x1000 next to "number to match" 24):

[56] https://www.youtube.com/watch?v=MthxLr6sobU&ab_channel=CerealMarshmallows

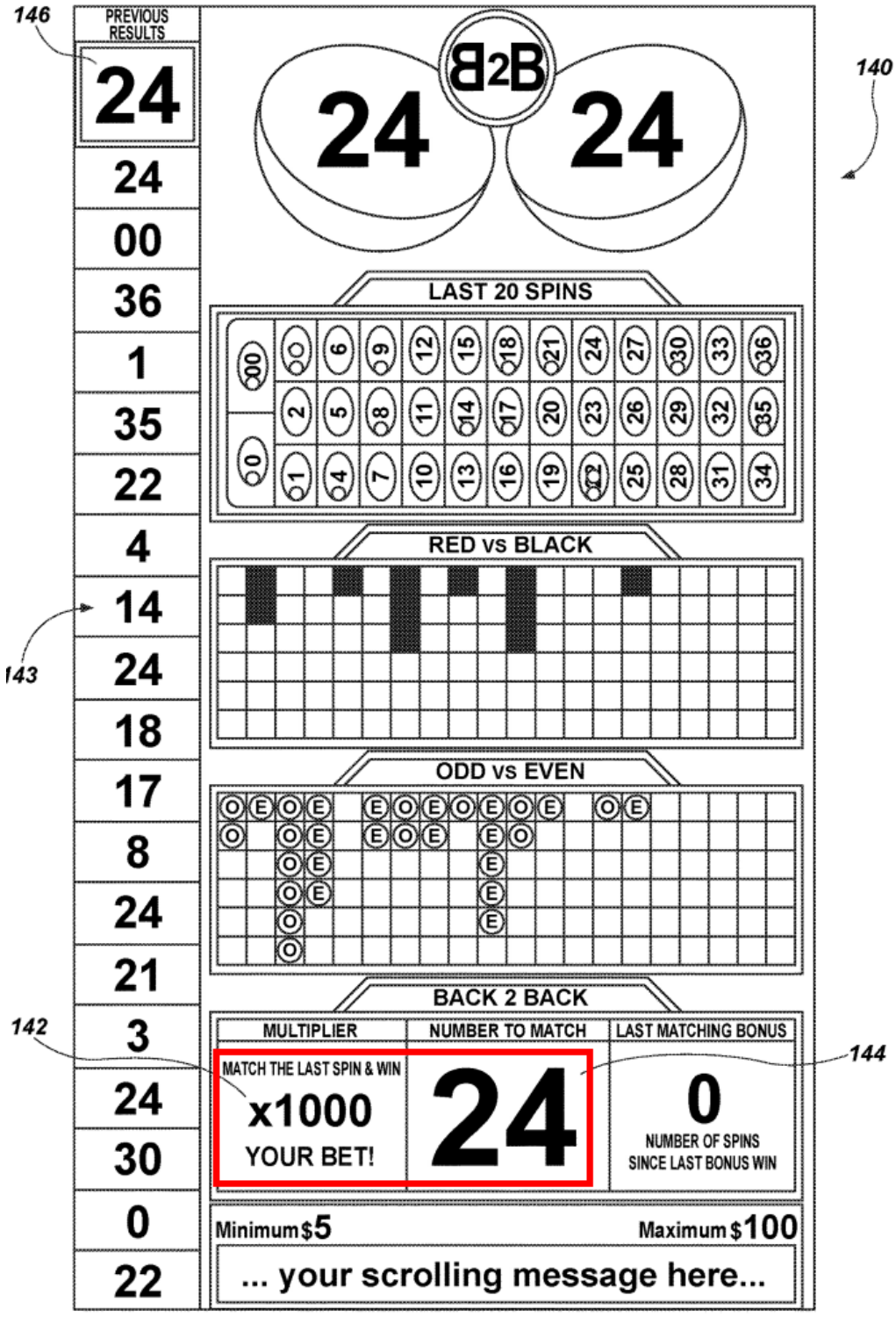


FIG. 3

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

Yee at Fig. 3 (highlighted). 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!" Yee at 13:52-56, Fig. 3.

560. I note that Yee discloses a multiplier of 1000 with the "x" before as well as after the number (e.g., "1,000x" vs. "x1000," indicating the equivalence of those written expressions. Yee at Fig. 2, numeral 126, *cf.* Yee at Fig. 3 numeral 142.

561. In view of Baron's disclosure (via the incorporated Frost reference) that the player terminal will "flash" locations on the betting layout (Frost at 5:55-60), or Baron's disclosure (via the incorporated Baron and Haushalter reference) that generated roulette outcomes may be indicated with dots at their locations on the betting layout ('244 reference at Fig. 3B, [0054]), a POSITA would have thought it obvious to substitute or add Yee's disclosure of a multiplier 500x (Yee at Fig. 2 numeral 126, "500x") displayed at those same locations to arrive at the claimed indication. Doing so would serve two purposes: displaying to the player what the payout multiplier is, and what number is needed to win it.

562. Yee also discloses that the multiplier such as 500x may be displayed "on a common game display … in advance of displaying the game outcome [because it] adds anticipation and further enjoyment to the game." Yee at 10:61-67. Yee also discloses that "some embodiments may be implemented at locations

that include a plurality of player stations [that] include an electronic display of game information" including "virtual chips [and] wagers made." Yee at 18:62-66. Yee also discloses that the game outcome in a virtual roulette game may be "displayed at the individual player interfaces 416 or on a common display 430." Yee at 19:67-20:2. Therefore, in my opinion, a POSITA would have thought it obvious in a game with individual player interfaces to display the multiplier (such as 500x) on the individual player interface as well as, or instead of, a common game display, since doing so would fulfill both inventors' (Baron and Yee) goal of providing "new and more interesting ways to play roulette, particularly when the reward for a winning outcome at the end of a round of play … may be enhanced." Baron at [0002], Yee at 1:21-26.

563. Yee discloses that a diagram of a playing surface 120 may be "a felt layout on a physical gaming table [] or an electronic representation on a video display … 416" Yee at 12:56-62, Figs. 2, 5A:

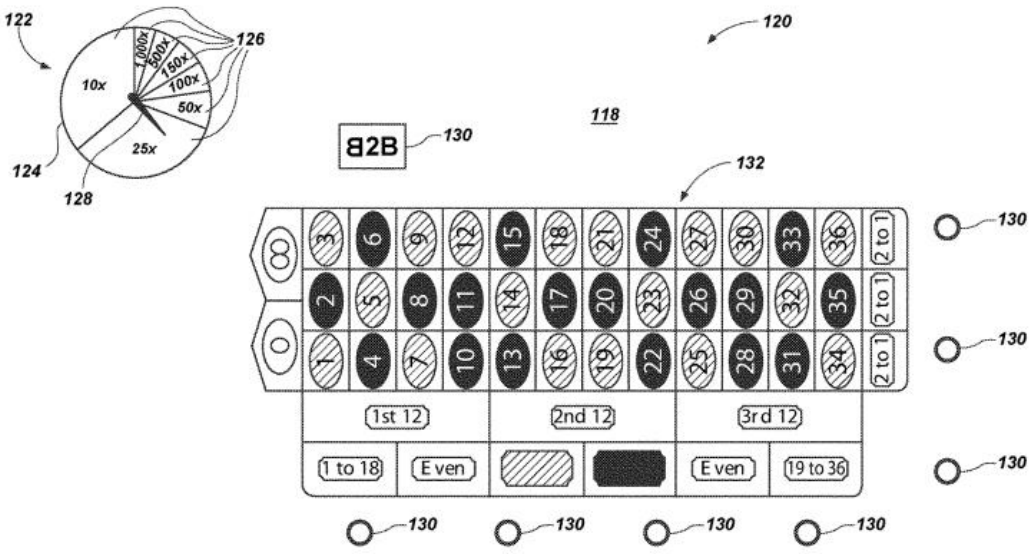


FIG. 2

Yee at Fig. 2, playing surface 120.

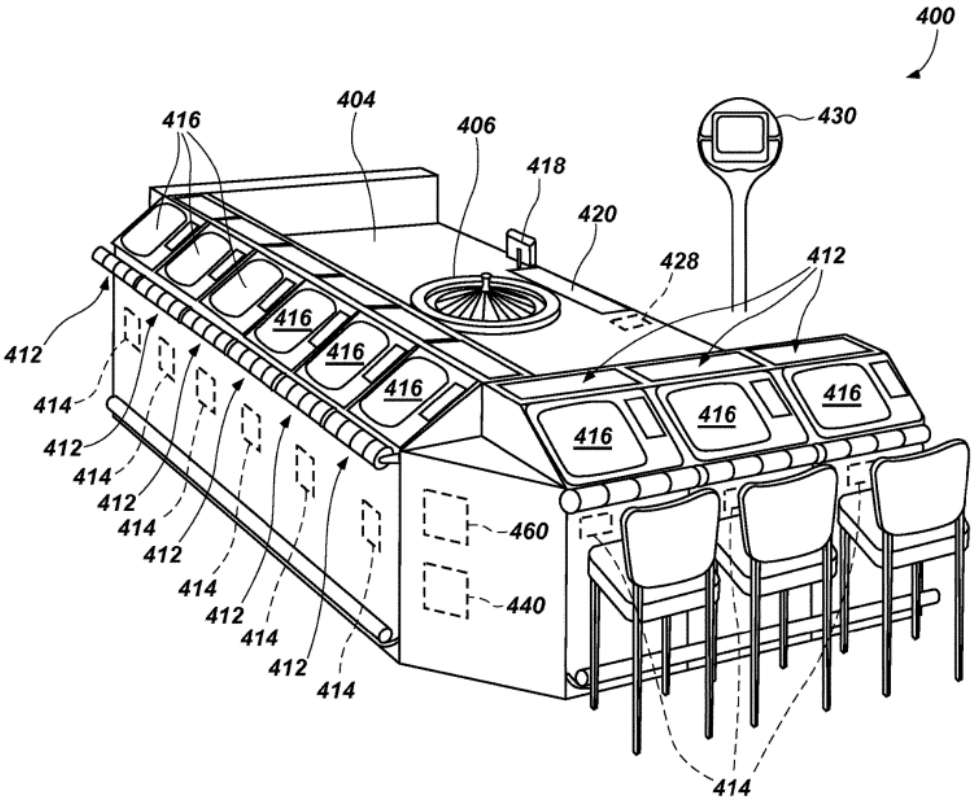


FIG. 5A

Yee at Fig. 5A, individual player interfaces numerals 416.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

564. When the layout 120 of Fig. 2 is displayed on an individual player interface such as 416 of Fig. 5A, a POSITA would also have found it obvious to display the multiplier on the individual player interface at the position on the layout corresponding to the target number. As described in the background section, several other casino games did the same (e.g., craps, where the payout of 30-1 is displayed at the position for the 12 (boxcars) outcome), and it would have been obvious to apply that same technique to a video version of roulette.

565. Therefore, in my opinion, a POSITA would have found it obvious in view of the combination of Baron and Yee both to select and indicate a multiplier of 500x, and to indicate that multiplier at the first selected position on a roulette board in the first graphical user interface as was already known in the art. Therefore, in my opinion, the combination of Baron and Yee render this claim obvious.

3. Claim 16: The method of claim 9, further comprising indicating "500×" at the first selected position on a roulette board in the first graphical user interface.

566. In my opinion, Baron and Yee render this claim obvious for the reasons described for Claim 8.

4. Claim 24: The non-transitory computer-readable medium of claim 17, wherein the method further comprises

indicating "500×" at the first selected position on a roulette board in the first graphical user interface.

567. In my opinion, Baron and Yee render this claim obvious for the reasons described for Claim 8.

XIV. ANALYSIS OF '371 PATENT

A. Ground 1: Kido

568. In my opinion, as set forth below, claims 1-2, 4-6, 10-12, 14-16, 19, 21-22, 24-26, and 30 of the '371 patent are unpatentable as being anticipated by, or obvious over, Kido.

1. Claim 1

a. [Preamble] A system for wagering, comprising:

569. To the extent the preamble is limiting, Kido discloses "a gaming machine including … a plurality of terminal devices, each of which receives a bet on the game and awards a payout." Kido at [0009], *see also* Kido at Fig. 2, Fig. 3, Fig. 6, Fig. 7, [0003], [0017], [0024], [0031], [0039], [0047], [0055]. Kido also discloses a "large-scaled multi-participant gaming system" which is a system for wagering. Kido at [0283].

570. A specific embodiment of a system for wagering is described with respect to Figure 3 of Kido, which depicts "a schematic structure of a roulette gaming device 1." Kido at [0126]. The roulette gaming device 1 of Figure 3 includes twelve stations 4 which "correspond to the terminal devices 103 of Fig. 2"

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

where each "station 4 serves as a bet unit for receiving a bet operation of a player and a payout unit for awarding a medal." Kido at [0127]. Therefore, Kido's roulette gaming device 1 is a "system for wagering" as recited in the preamble of claim 1. Therefore, Kido discloses this element.

b. [Element 1] a ball;

571. Kido discloses "a roulette unit including a wheel on which a ball is rolled at a time of executing a roulette game" [0017] and "to roll the ball and determining, as a win mark, a mark corresponding to a stop position of the ball" [0020].

572. In the embodiment of Figure 3, the roulette unit 3 of Kido's roulette gaming device 1 includes a frame 21 with "a ball insertion slot 35…. The ball insertion device is structured to insert the ball 27 from the ball insertion slot 36 onto the wheel 22." Kido at [0133], [0136]. Therefore, Kido discloses this element.

c. [Element 2] a roulette wheel having a plurality of positions into which the ball can land after a spin of the roulette wheel; and

573. Kido discloses "a roulette gaming device including: a roulette unit including a wheel on which a ball is rolled at a time of executing a roulette game, the wheel having thereon a plurality of marks." Kido at [0017].

574. In the embodiment of Figure 3, the roulette gaming device 1, includes a roulette unit 3 with a roulette wheel. Kido at [0132]-[0135]. Kido's roulette wheel has numbered pockets 23 into which the ball can land after a spin of the roulette wheel. Therefore, Kido discloses this element.

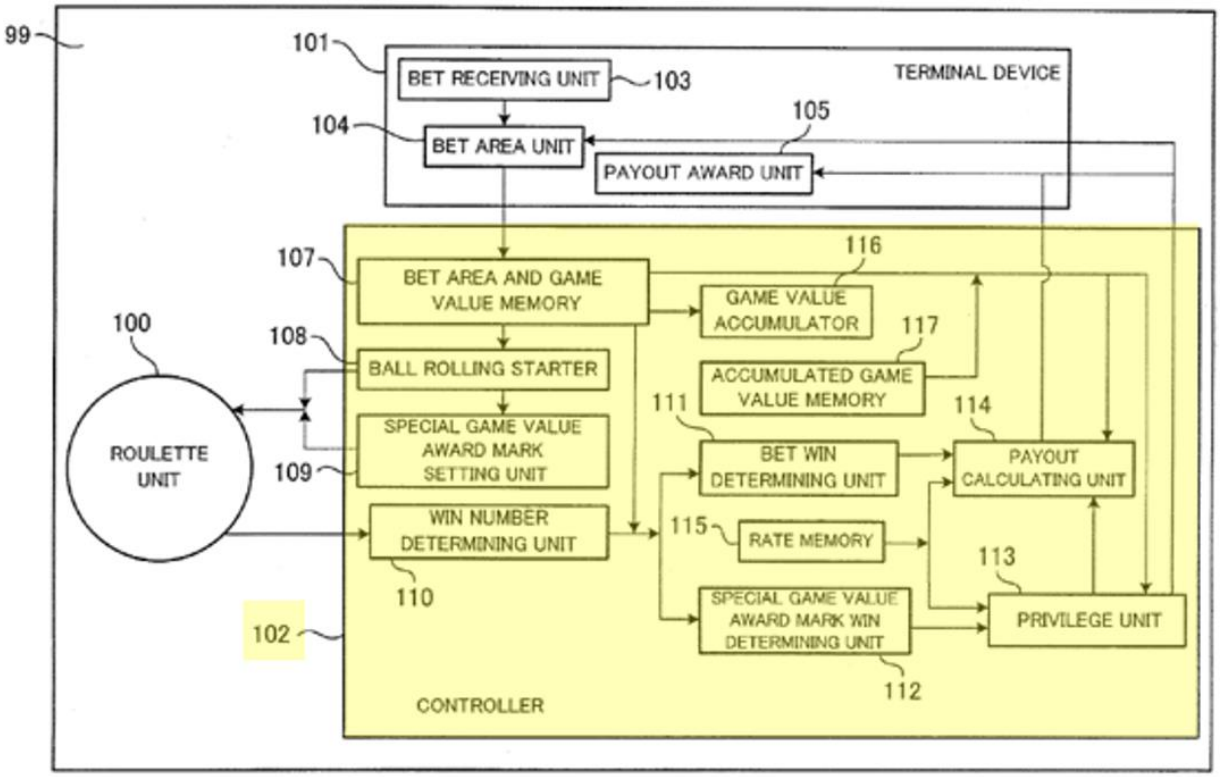
d. [Element 3] at least one hardware processor collectively configured to:

575. Kido discloses a "controller 102 is configured to execute a program." Kido at [0080]; *see generally* Kido at [0079]-[0119], Fig. 2. Kido also discloses that "the server 13 includes a server control CPU 81 serving as a calculation device performing an entire control and a control device." Kido at [0153]; *see generally* [0151]-[0160], Fig. 6. Kido further discloses that "the station control unit 90 includes a station control CPU 91." Kido at [0163]; *see generally* [0161]-[0170], Fig. 7.

576. Kido's server control CPU 81 and station control CPUs 91 disclose the claimed "a hardware processor," with the CPUs 81, 91 configured to perform each of the steps of claim 1 of the '024 patent, as explained below. Further, Kido's CPUs 81, 91 are "hardware processors," as referred to in the '024 patent. A POSITA would have understood the acronym "CPU" to stand for "central processing unit," a well-known type of hardware processor. Kido's CPUs 81, 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 "a hardware processor," as claimed.

577. Kido's disclosure of the claimed "a hardware processor" is further reflected in Figure 2, a block diagram of the roulette gaming device 1 depicted in Figure 3. Kido at [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, which includes the aforementioned server control CPU 81. Kido at [0105], [0130][57], [0153].



[57] Kido paragraph [0130] states "the server 13 corresponds to the controller 105 of Fig. 2," however, in Fig. 2, the controller is numeral 102, not 105. See also Kido paragraph [0111]. 105 appears to be a mistranscription; see the following footnote for further information.

Kido, Fig. 2

578. A POSITA 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 functional blocks of the controller 102 of Figure 2 (e.g., "special game value award mark setting unit" 109; see Fig. 14). 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. Kido at [0111] ("controller 102 may be embodied in hardware or software, as required").

579. The '024 patent recites that "hardware processor 602 can include any suitable hardware processor, such as a microprocessor, a micro-controller, digital signal processor(s), dedicated logic, and/or any other suitable circuitry for controlling the functioning of a general-purpose computer or a special-purpose computer in some embodiments." '024 patent at 6:41-46. A POSITA would have understood that the controller and CPUs disclosed by Kido are each disclosures of a "hardware processor" as that term is used in the '024 patent. Therefore, Kido discloses this element.

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;

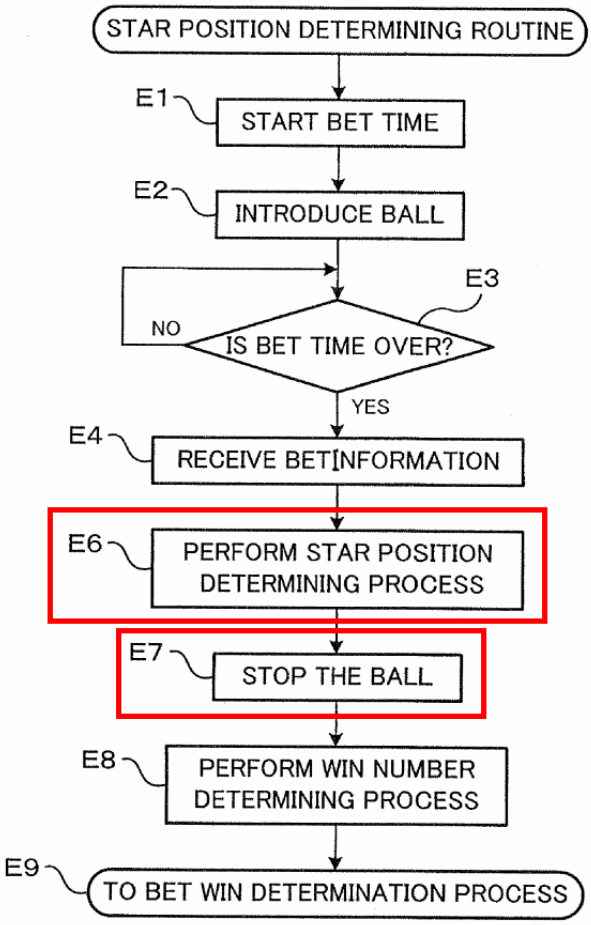
580. Kido discloses that "the roulette unit also has a function of randomly selecting a position of the star mark 88. … Fig. 14 is a flow chart of star position determining routine program of a roulette gaming device 1." Kido at [0249], Fig. 1, Fig. 3. Kido's star mark position is disclosure of a first selected position on the roulette wheel, and it is randomly selected. *See also* Kido at [0050]-[0052], [0099]-[0100], [0108], [0114].

581. Kido discloses that the randomly selected star mark is used to determine whether a privilege is won on a given spin of the wheel. Kido at [0063], [0185]-[0186], Figs. 1, 14. Kido's Figure 14 "is a flow chart of a star position determining routine program of [the] roulette gaming device 1," and this figure shows that the random selection of the star mark position at step E6 occurs prior to the ball landing into any of the plurality of positions on the roulette wheel for the spin. Kido at [0249], Fig. 14. At step E2, "the ball 27 [is introduced] to the wheel 22." Kido at [0250]. Then, while the ball and wheel are spinning and before the ball lands at step E7, the server control CPU 81 randomly selects the position for the star mark. Kido at [0112], [0250]. After the ball lands at step E7, steps E8 and E9 are performed to determine the win number for the spin (i.e., the position in

which the ball landed for the spin) and whether there was a winner for the spin. Kido at [0229]-[0230], [0250].

582. Kido also discloses that the Star Position Determining Process occurs before the ball is stopped (prior to falling into an outcome position on the roulette wheel). Fig. 14, numerals E6 and E7, [0250]:

FIG. 14



Kido at Fig. 14, steps E6 and E7 highlighted. *See also* Kido at [0114], [0265].

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

583. Kido discloses awarding a privilege when, among other things, "the mark bet is also the special game value award mark." Kido at [0053], [0100]. In this claim, Kido's star mark or special game value award corresponds to the claim term "the first selected position."

584. Kido discloses performing the Star Position Determining Routine of Fig. 14 in conjunction with the other disclosed routines, including transitioning from steps E8 and E9 in Fig. 14 to step A9 in the Prog routine. Kido at [0249]-[0250].[58] 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 POSITA would have understood both alternatives as being viable options for determining the star mark's position in the Prog bonus routine of Figure 12. Kido at [0221], [0249]-[0250], [0265]. In view of this Kido's disclosure, a POSITA 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.

585. Alternatively, Kido also discloses that the position of the star mark can be set in advance of the game. Kido at [0209], [0221], [0249]. In the event the

[58] I note two other typos in [0250], namely that Kido recites "a step of B6, 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." First, there is no step B6 in Fig. 14, and step B6 in Fig. 9 relates to the win number determining process; but step E6 in Fig. 14 is "Perform Star Position Determining Process." Second, in the description of possible selections for the star mark, "0" is duplicated while "00" is omitted. See [0050], [0134], and Fig. 4.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

randomly selected position of the star mark is set in advance of the game, the player can choose to bet on the position of the star mark, and therefore the first selected position would be the same as the player's wager. In this scenario, the star position would be randomly selected "prior to the ball falling into an outcome position on the roulette wheel," and also selected before the game begins. However, this randomly selected star position is nevertheless disclosure of "randomly selecting a first selected position on the roulette wheel for the spin of the roulette wheel." The claim language does not limit the claimed step of "randomly selecting" to occur after the wheel and ball have been spun, only "prior to the ball falling into an outcome position."

586. Kido's first selected position is randomly selected "for the spin of the roulette wheel," as claimed. Kido's Figure 14 (reproduced above) "is a flow chart of a star position determining routine program of [the] roulette gaming device 1," and this figure shows that the random selection of the star mark position at step E6 occurs for a spin of the roulette wheel. Kido at [0249], Fig. 14. Specifically, at step E2, "the ball 27 [is introduced] to the wheel 22." Kido at [0250]. Then, while the ball and wheel are spinning and before the ball lands at step E7, the server control CPU 81 randomly selects the position for the star mark. Kido at [0250]; *see also* [0112]. After the ball lands at step E7, steps E8 and E9 are performed to determine the win number for the spin (i.e., the position in which the ball landed

for the spin) and whether there was a winner for the spin. Kido at [0229]-[0230], [0250]. Accordingly, the position for the star mark randomly selected at step E6 is "for the spin of the roulette wheel," as claimed: In each round of roulette, the wheel is spun, and the position of the star mark is randomly selected for that spin of the wheel.

587. Kido's first selected position is randomly or pseudo-randomly selected "to have a first increased payout for the spin of the roulette wheel." Step A9 in Kido's Fig. 12 discloses checking for a winner and if yes, determining whether the win occurred in the star mark. Kido at Fig. 12 numerals A9, A10, [0230]. If the win did not occur in the star mark, the payout for the winner "is calculated using the base odds" according to Fig. 8 (e.g., 35:1 for a straight up bet.) Kido at [0231]. However, if the win occurred in the star mark, the payout also includes a progressive or "Prog" bonus, that is "accumulated game value" accumulated from a predetermined ratio of a portion of the chips bet from prior games where the win did not occur in the star mark. Kido at [0226], [0230], Fig. 12 steps A5 and A11. A POSITA would recognize Kido's description of the Prog bonus to reflect the commonplace process for accumulating and paying out a progressive jackpot prize.

588. Therefore, the accumulated game value or progressive prize in step A11 is added to the base odds payout from step A12 when the win occurs in a star

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

mark ("first selected position to have a first increased payout"), but not when a win occurs on any other number, so it is an increased payout.

589. Therefore Kido discloses this element.

f. [Element 5] determine that the ball has landed into the first selected position for the spin; and

590. In step A7 of Kido's Figure 12 Prog bonus routine, the server control CPU 81 determines "the numbered pocket 23 into which the ball 27 is received." Kido at [0228]. Then, 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." Kido at [0229]. 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. 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." Kido at [0108].

591. Further, the CPU 81's determination occurs "for the spin": As explained above, the steps of Figure 12 (including step A7, when the CPU 81 determines "the numbered pocket 23 into which the ball 27 is received" (Kido at [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." Kido at [0233].

592. Further, Kido discloses steps of "stop the ball" and "win number determining process" for each of its routines, and that those routines are carried out by the controller or CPUs in the roulette gaming system. Kido at Figs. 1-3, Fig. 9 numerals B5 and B6, Fig. 11 numerals C5 and C6, Fig. 12 numerals A6 and A7, Fig. 13 numerals D5 and D6, Fig. 14 numerals E7 and E8, Fig. 15 numerals F6 and F7. Kido also discloses "determining, as a win mark, a mark corresponding to a stop position of the ball." *See, e.g.*, Kido at [0020], [0027], [0035], [0042], [0059].

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.

593. 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. 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. Kido at [0167]; *see also* [0127], [0177].

594. Kido's CPU 81 "determine[s] that the first increased payout is applicable to a first bet made on the first selected position." As detailed 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. Kido at [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 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. Kido at [0233].

595. 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. As explained above for Element 4, 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." Kido at [0114], [0221]. By contrast, had the first selected position not been randomly selected, the player would only be eligible for the basic payout. Therefore, the

accumulated game value or progressive prize in step A11 is added to the base odds payout from step A12 when the win occurs in a star mark ("first selected position to have a first increased payout"), but not when a win occurs on any other number ("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"), and therefore the amount won from a star mark win ("first increased payout") is greater than a non-star mark win ("first non-selected payout"). Therefore Kido discloses this element.

2. Claim 2: The system of claim 1, further comprising a display that identifies the first selected position.

596. Kido discloses that the star mark 88 is displayed on the BET screen 31 displayed on the display device 8 at each player station. Kido at [0184]-[0188], Fig. 3 numerals 8, 31, Fig. 5 numeral 88. Specifically, Fig. 3 depicts a "display (numeral 8) adjacent to the roulette wheel (numeral 3)" and Fig. 5 depicts the "first selected position (numeral 88)." See also Kido at [0122], [0143]. Therefore, Kido discloses this element.

3. Claim 4: The system of claim 1, wherein the at least one hardware processor is further collectively configured to:

a. 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 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.

597. Kido discloses that an "object of the invention is to provide a roulette gaming device that awards a new game value to several numbers (including letters) serving as a figure letter including numbers such as numbers indicated on a wheel." Kido at [0008]. Kido discloses setting such a "star mark 88," so it is at least obvious that the object of Kido's invention can be satisfied by "awarding a new game value to several star marks."

598. Kido further discloses multiple privilege routines, each of which can randomly select a position of the star mark. Kido at [0249], [0282], Fig. 14. Kido also discloses that the privileges may be combined. Kido at [0282]. In the event of combining privileges, there are only two possibilities: either the same star mark is used to trigger both privileges, or two different star marks are used to trigger one

privilege each. A POSITA would have understood that combining privileges triggered by the same star mark (same roulette number) would lead to higher mathematical variance than implementing two privileges with different star positions each, and would have chosen either approach based on the mathematical design goals of the game (higher hit frequency vs. higher average winning payout). Therefore, it would have been at least obvious to combine two privilege routines by randomly selecting a position of a different star mark for each one, such that one privilege would be awarded on a first star mark and a second privilege would be awarded on a different mark. Therefore, Kido renders obvious "randomly select[ing] a second selected position on the roulette wheel" as claimed.

599. In my opinion, once a POSITA had selected two different star marks in the system of Kido as described above, it is inherent that the determined payouts for a win on the first and second marks could only either be the same or different. Therefore, it is at least obvious that the payouts for winning on a first star mark vs. winning on a second star mark can be different. Doing so would also satisfy the "object of the invention [which] is to provide a roulette gaming device that awards a new game value to several numbers." Kido at [0008]. As described herein, a POSITA would understand that many other games provided different awards for different winning outcomes so it would have been obvious to do so in Kido.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

600. 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." Kido at [0006]-[0008]. A POSITA would have recognized that using different payouts for the first and second randomly selected positions would add excitement for players, thus motivating the POSITA to select this option. Further, the random selection of multiple positions with different payouts was known in the art, which would have further motivated a POSITA to employ this technique in Kido. *See, e.g.*, EX1018 (Raedt) at Abstract.

601. 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 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." Kido at [0114], [0221]. By contrast, had the second selected position not been randomly selected, the player would only be eligible for the lesser, basic payout.

4. Claim 5: The system of claim 1, wherein the at least one hardware processor is further collectively configured to cause the ball and the roulette wheel to automatically spin.

602. Kido discloses that the CPU 81 is configured to cause the roulette wheel and ball to spin automatically, without human intervention. Kido at [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 Kido at [0153], [0108], [0114], [0221], [0223], [0227].

5. Claim 6: The system of claim 1, 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.

603. Fig. 5 of Kido depicts a roulette board and a highlighted first selected position (00, shown with a star mark) in the first graphical user interface. For this reason, and the reasons described above, Kido discloses this element. As explained above, 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. Kido at [0175], [0186]. Kido's betting board 30 displayed on the first graphical user interface is a "roulette board," as claimed. Further, in Kido, the at least one hardware processor is configured to highlight the first selected position in response to the first selected position being randomly selected. The randomly selected star mark 88 is displayed on the roulette wheel (Kido at Fig. 4, element 88) and on the

betting board 30 of the bet screen 31. Kido at Fig. 5, element 88; [0068]. A POSITA would have understood that the display of the randomly selected star mark 88 serves as a type of highlighting, thereby disclosing this limitation.

6. Claim 10: The system of claim 1, wherein the first bet is a bet on a single position on the roulette wheel.

604. Kido discloses "As shown in Fig. 5, the chip mark 41 of "7", which is put on the grid of "18", indicates that 7 chips are bet on the number "18". Like this, the bet type in which a bet is made on one number only is referred to as a "Straight Up."" Kido at [0190]; see also [0172], [0182]. Kido also discloses the well-known and typical payouts for roulette including the "straight up" (single number) bet paying at 35-to-1. Kido at Fig. 8, "base odds" column, cf. EX1032 at p. 403, EX1046 at p. 2.

7. Claim 11

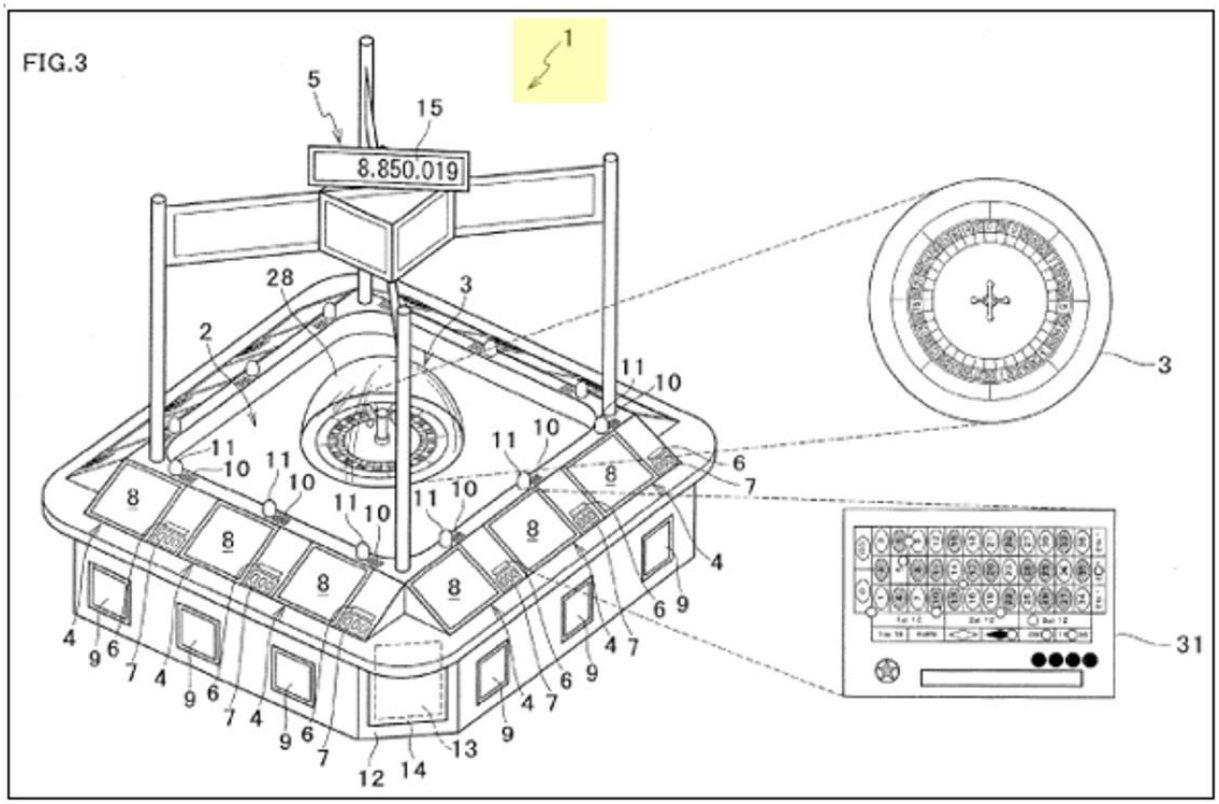
a. [Preamble] A method for wagering, comprising:

605. As described for Claim 1, Kido discloses several methods for wagering, including several privilege routines. Therefore, to the extent the preamble is limiting, Kido discloses a method for wagering.

b. [Element 1] 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;

606. Kido discloses multiple player stations or terminal devices (e.g., twelve), each of which is used by a player to place bets based on a bet area displayed on an image display device. Kido at [0085], [0122], [0127]. Kido discloses that each station has a station control CPU that is "associated with an image display device 8 through a liquid crystal driving circuit 95. With regard to this, the liquid crystal driving circuit includes a program ROM [that] stores an image control program for display on the image display device 8, a variety of selection tables and the like." Kido at [0165]-[0166], Fig. 7, Fig. 1. One of the displays that can be displayed on the image display device is "BET screen 31" (sometimes "BET screen 61").[59] Kido at [0175], Fig. 1, Fig. 5. In the embodiment of Figure 3, the stations 4 of the roulette gaming device 1 disclose the claimed "first player device of a first player":

[59] I note that "BET screen 61" appears to be a typo, the figures depict numeral 31 with the label "BET SCREEN," not numeral 61. Paragraph [0177] also contains typos related to numerals 36 vs. 66. Compare Paragraph [0177] with Fig. 5. The foreign priority application for Kido was originally written in Japanese and these typos appear to be mistranscriptions: the machine translation of the Japanese priority patent is consistent in using numerals 31 or 36 and does not contain references to 61 or 66. See https://patents.google.com/patent/JP2008253402A/ (automatically machine-translated into English).



Kido, Fig. 3

607. Therefore, Kido discloses a first player device of a first player.

608. The BET screen uses a touch panel that allows the player to select bet areas on the Bet screen using their finger. Kido at [0167], [0176]-[0177], [0183]. In Fig. 5, bet areas are depicted as numeral 42, placed wagers are depicted as numeral 41, and bet amount selection buttons are depicted as 36A-36D. Kido at [0182], [0183]; *see also* [0127], [0143], [0147]

609. Accordingly, 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, and therefore Kido discloses that it

"generate[s] a first graphical user interface for presentation on a first player device of a first player," as claimed. Therefore, Kido's BET screen is a graphical user interface, so Kido discloses this element. Kido's graphical user interfaces are generated by the CPUs 81, 91 (*i.e.*, the "at least one hardware processor"). Kido at [0161]-[0170], [0188], [0193].

610. Fig. 5 of Kido depicts a roulette board and a highlighted first selected position (00, shown with a star mark) in the first graphical user interface. For this reason, and the reasons described for Claim 1, Element 4, Kido discloses this element. As explained above, 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. Kido at [0175], [0186]. Kido's betting board 30 displayed on the first graphical user interface is a "roulette board," as claimed. Further, in Kido, the at least one hardware processor is configured to highlight the first selected position in response to the first selected position being randomly selected. The randomly selected star mark 88 is displayed on the roulette wheel (Kido at Fig. 4, element 88) and on the betting board 30 of the bet screen 31. Kido at Fig. 5, element 88; [0068].

c. [Element 2] randomly or pseudo-randomly selecting a first selected position of a plurality of positions on a roulette wheel to have a first increased payout for a spin of the roulette wheel prior to a ball landing into any of the plurality of positions on the roulette wheel for the spin;

611. Kido discloses this element for the reasons described for Claim 1, Element 4.

d. [Element 3] determining that the ball has landed into the first selected position for the spin; and

612. Kido discloses this element for the reasons described for Claim 1, Element 5.

e. [Element 4] 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 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.

613. Kido discloses this element for the reasons described for Claim 1, Element 6.

8. Claim 12: The method of claim 11, further comprising causing the first selected position to be identified on a display.

614. Kido discloses this element for the reasons described for Claim 2.

9. Claim 14: The method of claim 11, further comprising:

a. randomly or pseudo-randomly selecting 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 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 position for the spin, and wherein the second increased payout is different than the first increased payout.

615. Kido discloses this element for the reasons described for Claim 4.

10. Claim 15: The method of claim 11, further comprising causing the ball and the roulette wheel to automatically spin.

616. Kido discloses this element for the reasons described for Claim 5.

11. Claim 16: The method of claim 11, wherein the first selected position is highlighted in the roulette board.

617. Kido discloses this element for the reasons described for Claim 6.

12. Claim 19: The method of claim 11, wherein the first bet is a bet on a single position on the roulette wheel.

618. Kido discloses this element for the reasons described for Claim 10.

13. Claim 21

a. [Preamble] A non-transitory computer-readable medium containing computer executable instructions that, when executed by a processor, cause the processor to perform a method for wagering, the method comprising:

619. As described for Claim 1, Kido discloses that its server and stations have control CPUs ("processors," respectively 81 and 91) that execute game processing programs ("computer executable instructions") that are stored in ROM 82 or RAM 83 (for the server) and in ROM 92 or RAM 93 (for the station). Kido at [0193]. Therefore, to the extent the preamble is limiting, Kido discloses this element.

b. [Element 1] randomly or pseudo-randomly selecting a first selected position of a plurality of positions on a roulette wheel to have a first increased payout for a spin of the roulette wheel prior to a ball landing into any of the plurality of positions on the roulette wheel for the spin;

620. Kido discloses this element for the reasons described for Claim 1, Element 4.

c. [Element 2] determining that the ball has landed into the first selected position for the spin; and

621. Kido discloses this element for the reasons described for Claim 1, Element 5.

d. [Element 3] 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 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.

622. Kido discloses this element for the reasons described for Claim 1, Element 6.

14. Claim 22: The non-transitory computer-readable medium of claim 21, wherein the method further comprises causing the first selected position to be identified on a display.

623. Kido discloses this element for the reasons described for Claim 2.

15. Claim 24: The non-transitory computer-readable medium of claim 21, wherein the method further comprises:

a. randomly or pseudo-randomly selecting 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 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.

624. Kido discloses this element for the reasons described for Claim 4.

16. Claim 25: The non-transitory computer-readable medium of claim 21, wherein the method further comprises causing the ball and the roulette wheel to automatically spin.

625. Kido discloses this element for the reasons described for Claim 5.

17. Claim 26: The non-transitory computer-readable medium of claim 21, wherein the method further comprises causing 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.

626. Kido discloses this element for the reasons described for Claim 6.

18. Claim 30: The non-transitory computer readable medium of claim 21, wherein the first bet is a bet on a single position on the roulette wheel.

627. Kido discloses this element for the reasons described for Claim 10.

B. Ground 2: Kido and Yee

628. In my opinion, as set forth below, claims 7-9, 17-18, 20, and 27-29 of the ’371 patent are unpatentable as obvious in view of the combined disclosures of Kido and Yee.

1. Motivation to combine Kido and Yee

629. In my opinion, a POSITA would have looked to both Kido and Yee when considering roulette gaming machines. Both Kido and Yee are in the same field of endeavor: they are both directed toward roulette gaming machines and variations of roulette involving a comparison between a randomly generated number with a number generated by a spin of a roulette wheel. Kido and Yee Abstracts. A POSITA would have understood that a number generated by a spin of

a roulette wheel *is* a randomly generated number, and in view of the numerous prior art embodiments of the purported innovation in the challenged patents (*see* Section X, *supra*), a POSITA would have naturally looked to other examples or variations of those embodiments when considering roulette gaming machines and variations of roulette. Kido and Yee also both teach the benefits of increasing a player's desire to play, such as through increased payouts. Kido at [0007]-[0008], Yee at 1:21-26. Kido and Yee also both relate to computerized roulette systems having an enhanced payout feature that is based on a randomly selected number. In addition, a POSITA 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.

630. A POSITA would have been motivated, when considering Kido's teaching of awarding privilege awards (*e.g.*, Kido at Fig. 1, Abstract), to provide improvement by visually displaying a large numeric award, as taught by Yee. Further, both Kido and Yee disclose displaying special payouts or win multipliers. Kido at [0129], Yee at 10:61-67. Kido describes an objective of providing a roulette gaming device with new features for avoiding "monotonous" play and "increasing a player's game desire." Kido at [0006]-[0008]. A POSITA would have recognized that displaying the payout enhancement (as taught in Yee) would

add excitement for players, and a POSITA would have been motivated to use this feature in Kido for at least this reason.

2. Claim 7: The system of claim 6, wherein the at least one hardware processor is further configured to indicate "500×" at the first selected position on the roulette board in the first graphical user interface.

631. I am informed by counsel that an indication of "500x" at a position on a roulette board in a graphical user interface is non-limiting printed matter.

632. Nevertheless, both Kido and Yee disclose "indicating" payout amounts "at" respective positions on wagering layouts. For instance, Fig. 5 of Kido and Fig. 2 of Yee both indicate the traditional roulette payout multiplier "2 to 1" for each "column" wager "at" the position on the layout corresponding to the relevant number(s). Kido at Fig. 5, Yee at Fig. 2, Ex. 1 at 404. Additionally, a POSITA would be aware of several other casino games that did so, e.g., craps and sic bo.

633. Yee also specifically discloses the claimed multiplier of 500x ("500 times"). Yee at 2:19, 8:17, 9:4-6, Fig. 2 numeral 122. Yee also discloses the multiplier of 500x is used to multiply the wager amount when "the randomly generated number" (e.g., the results of a physical roulette wheel spin) "is identical to a [different] randomly generated number." Yee at 2:20-30. Yee also discloses that randomly generating a number can be performed "by activating an electronic random number generator." Yee at 4:8. Therefore, Yee discloses that a computer-

generated random number can be compared to the results of a roulette spin and, if they are identical, pay a 500x multiplier. A POSITA 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 and display a 500x multiplier in Kido, as disclosed in Yee.

634. Further, a POSITA would also have known that Yee was far from the first game to disclose using a 500x multiplier. For example, as illustrated in the background section, IGT's popular Wheel of Fortune slot machine displayed a 500x award on its bonus wheel. The literal text reads only 500, not "500x," but since the listed payout serves to multiply the credit value (which may be $1, $2, $0.25, etc), a POSITA would have understood that the payout is in fact a multiplier. Further, IGT's Wheel of Fortune literally depicts multipliers with an "x" elsewhere in its symbol set.



Wheel of Fortune wheel, excerpt[60]

635. It would have been obvious to a POSITA that, once a random multiplier has been selected, it should be displayed to the player, otherwise the player would not know what it is. Yee also discloses displaying a multiplier (e.g., 500x or 1000x) adjacent to the number needed to win it. Yee at 14:23-34, Fig. 3 (showing "multiplier" x1000 next to "number to match" 24):

[60] https://www.youtube.com/watch?v=MthxLr6sobU&ab_channel=CerealMarshmallows

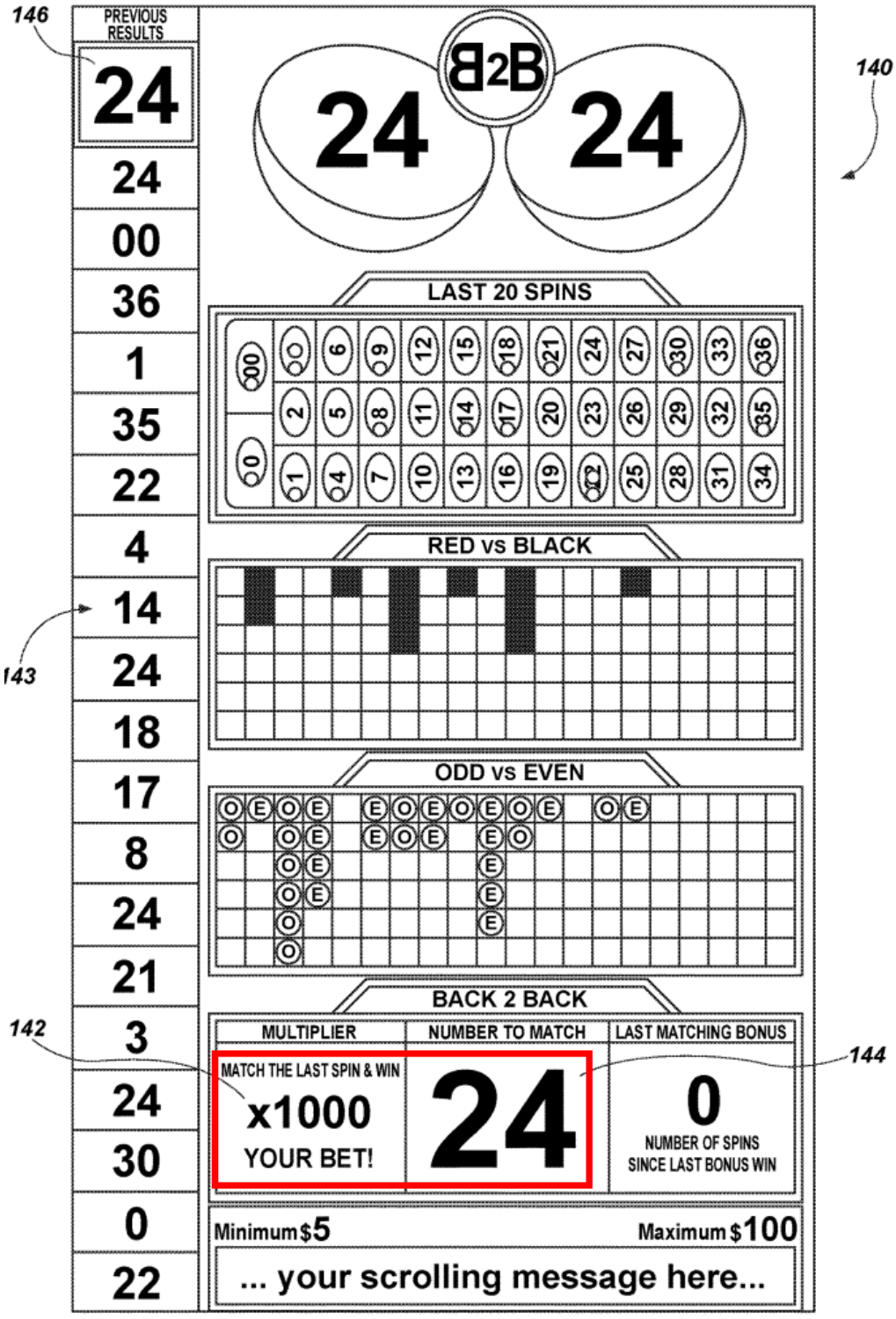


FIG. 3

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

Yee at Fig. 3 (highlighted). 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!" Yee at 13:52-56, Fig. 3.

636. I note that Yee discloses a multiplier of 1000 with the "x" before as well as after the number (e.g., "1,000x" vs. "x1000," indicating the equivalence of those written expressions. Yee at Fig. 2, numeral 126, *cf.* Yee at Fig. 3 numeral 142.

637. In view of Kido's disclosure of displaying the star mark on the roulette layout (Kido at Fig. 5 numeral 88), a POSITA would have thought it obvious to substitute or add Yee's disclosure of a multiplier 500x (Yee at Fig. 2 numeral 126, "500x") to arrive at the claimed indication. Doing so would serve two purposes: displaying to the player what the payout multiplier is, and what number is needed to win it.

638. Yee also discloses that the multiplier such as 500x may be displayed "on a common game display … in advance of displaying the game outcome [because it] adds anticipation and further enjoyment to the game." Yee at 10:61-67. Yee also discloses that "some embodiments may be implemented at locations that include a plurality of player stations [that] include an electronic display of game information" including "virtual chips [and] wagers made." Yee at 18:62-66. Yee also discloses that the game outcome in a virtual roulette game may be

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

"displayed at the individual player interfaces 416 or on a common display 430." Yee at 19:67-20:2. Therefore, in my opinion, a POSITA would have thought it obvious in a game with individual player interfaces to display the multiplier (such as 500x) on the individual player interface as well as, or instead of, a common game display, since doing so would similarly "add anticipation and further enjoyment to the game.

639. Yee discloses that a diagram of a playing surface 120 may be "a felt layout on a physical gaming table [] or an electronic representation on a video display … 416" Yee at 12:56-62, Figs. 2, 5A:

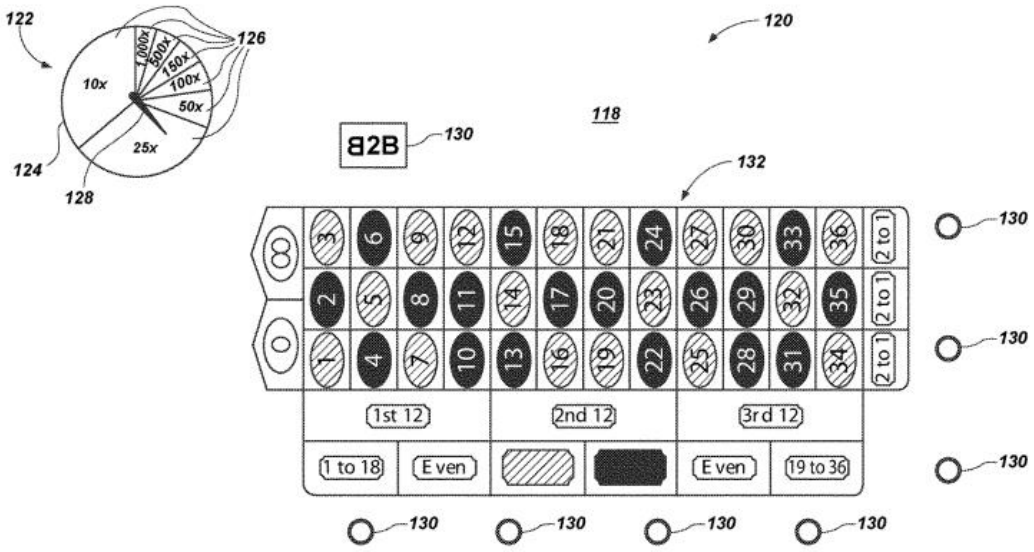


FIG. 2

Yee at Fig. 2, playing surface 120

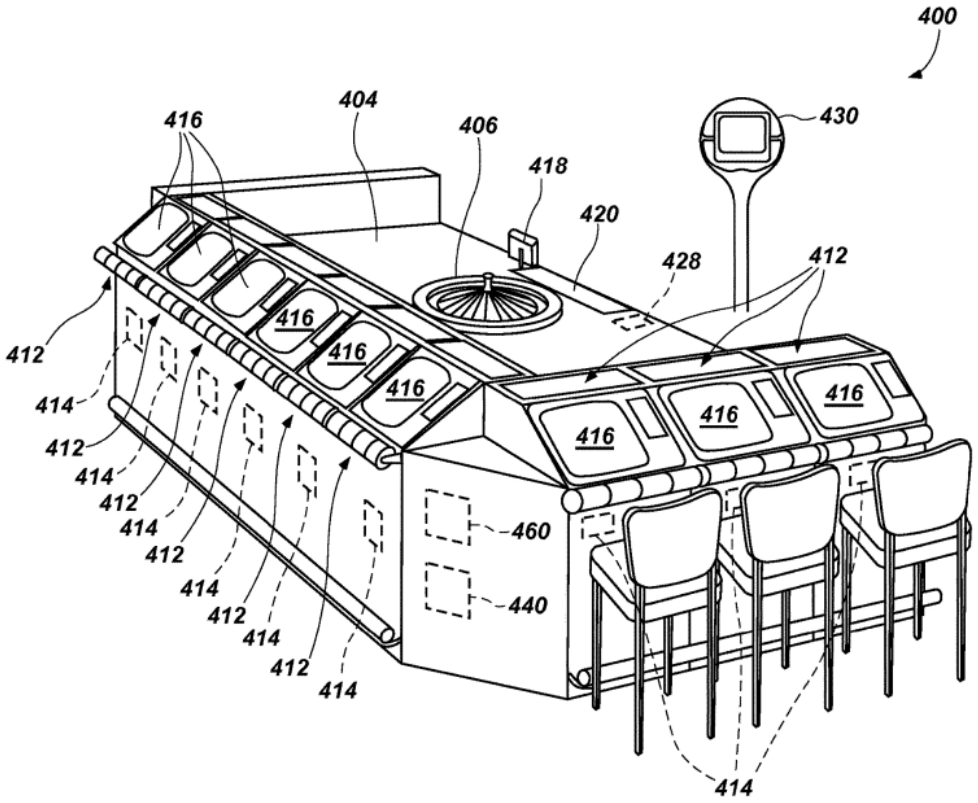


FIG. 5A

Yee at Fig. 5A, individual player interfaces numerals 416

640. When the layout 120 of Fig. 2 is displayed on an individual player interface such as 416 of Fig. 5A, a POSITA would also have found it obvious to display the multiplier on the individual player interface at the position on the layout corresponding to the target number. As described in the background section, several other casino games did the same (e.g., craps, where the payout of 30-1 is displayed at the position for the 12 (boxcars) outcome), and it would have been obvious to apply that same technique to a video version of roulette.

641. Also, Fig. 2 depicts a roulette wagering layout 120 (the claimed "roulette board") and a separate multiplier selection wheel 122, but a POSITA

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

would have appreciated that indicating the payout multiplier at the relevant position on the layout itself would enable the game designers to eliminate the separate multiplier selection wheel and thereby increase the overall size of the layout 120 on the screen, making it easier for the players to interact with the touchscreen to place wagers on that layout. For instance, this is shown in Kido Fig. 5 where the "table-type betting board 30" takes up the vast majority of the display screen.

642. Therefore, in my opinion, a POSITA would have found it obvious in view of the combination of Kido and Yee both to select and indicate a multiplier of 500x, and to indicate that multiplier at the first selected position on a roulette board in the first graphical user interface as was already known in the art. Therefore, in my opinion, the combination of Kido and Yee render this claim obvious.

3. Claim 8: The system of claim 1, wherein the first increased payout is 49:1.

643. Yee discloses that "a random multiplier selection apparatus may be used to randomly select a multiplier from a group of fixed multipliers for a payout on the wager" and "an amount of the payout being equal to an amount of the wager multiplied by the randomly selected multiplier." Yee at 1:63-2:9. Therefore, Yee discloses a payout of "N for 1" since the original wager is returned as part of the disclosed payout. Yee discloses several examples of fixed multipliers, including "50 times" or "50x." Yee at 2:16-19, Fig. 2 numeral 126. Therefore, Yee

discloses a 50 for 1 payout. As described in the background section, a payout of 50 for 1 is equivalent to a payout of 49 to 1 or 49:1. Therefore Yee inherently discloses this element. Further, a POSITA 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 and display a 49:1 multiplier in Kido, as disclosed in Yee.

644. If it is found that Yee does not disclose 49:1 (for example, because the phrase "49:1" is not literally present in Yee), it would have been obvious to a POSITA that Yee's total payout of 50x was equivalent to a payout of 49:1, for the reasons described in the background section.

645. More generally, even if Yee did not disclose or render obvious a payout of 49:1, Kido literally discloses payouts of 1:1, 2:1, 3:1, 5:1, 6:1, 8:1, 11:1, 13:1, 17:1, 23:1, 35:1, and 71:1. Kido at Fig. 8. In view of their common general knowledge, a POSITA would have found it obvious that a payout for a particular game event could be any of those payouts, or any other payout, so long as the overall house edge of the game remained suitable. In other words, a POSITA would understand that the process of casino game design includes setting payouts to achieve a desired overall house edge. If nothing else, Kido's disclosure that an increased payout for a "star bonus" could be 71:1 or 35:1 per Fig. 8 would suggest to a POSITA that a payout could be anything within that range, including 49:1.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

646. Furthermore, a payout of 49:1 or 50 for 1 is known in the art, for instance, as depicted in the exemplary image of IGT's Wheel of Fortune bonus wheel from the background section:



Wheel of Fortune wheel, excerpt[61]

647. Therefore Kido and Yee, in combination with a POSITA's common general knowledge, render obvious this element.

4. Claim 9: The system of claim 8, wherein the first non-selected payout is 29:1.

648. As described in the background section, a POSITA would have understood that in a game such as roulette where the probability of each outcome is equal and constant, if some game payouts increase and the goal is to maintain (or approximately maintain) the house edge, other game payouts would necessarily need to decrease to compensate or, to use the phrase in the challenged patents,

[61] https://www.youtube.com/watch?v=MthxLr6sobU&ab_channel=CerealMarshmallows

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

"account for" the increased game payouts. A POSITA 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. There are only a limited number of possibilities for payouts less than 35:1, including simply returning the player's money (a "push"), and each one of those payout amounts including 29:1 would have been obvious in view of a POSITA's common general knowledge.

649. Further, the choice of a particular payout in a game is often dictated by mathematics and the practical realities of game design, including the need to maintain a suitable house edge. In my opinion, a payout of 29:1 is a simple matter of design choice, and the challenged patents do not disclose any rationale or unexpected results for the specific selection of 29:1 (as opposed to any other decreased payout). For instance, a prior art reference for casino game mathematics including roulette, the *Wizard of Odds,* described the impact of "short pays" on roulette games, where "roulette games don't pay the full 35 to 1 on single-number bets." EX1046 at 4. It presents a table illustrating the additional house edge when a straight up (single-number) bet pays less than 35 to 1. EX1046 at 4-5. A POSITA would have understood that adjusting roulette by making such short pays would provide additional theoretical money (measured as a percentage of the

wager) to the house, which may either be kept or given back in another part of the game by increasing pays elsewhere.

650. Further, a POSITA would have stumbled across a payout of 29:1 during the course of ordinary exploration of game design possibilities, even if they did not ultimately select it. For instance, Yee discloses payouts of 50x, 100x, and 150x, which is disclosure that one payout (150x) can be the sum of two others (50x and 100x). Yee also discloses payouts of 250x (250 for 1) and casino craps discloses a payout of 7-to-1 (8 for 1), so it is obvious that another payout could be 258 for 1. Kido discloses selecting a specific position for a star bonus. A POSITA would have understood that if a specific position on the roulette wheel paid 258 for 1 as suggested by Kido and/or Yee, and the overall house edge were to be maintained unchanged (at 5.26%) then each other non-selected number would need to have a decreased payout of 30 for 1 (i.e., 29:1) to compensate. More generally, payouts such as 49:1 and 29:1 (i.e., 50 for 1 and 30 for 1) are design choices made by game designers during the ordinary course of their work, and there is no teaching or suggestion in the challenged patents that the particular choices of 49:1 or 29:1 solve any particular problem or lead to any unexpected result. In my opinion, a POSITA would have been readily be able to predict and understand the impact of using any particular payout value, since game design was (and is) often done using spreadsheets and evaluating the mathematical impact of a particular

payout value like 29:1 is as simple as typing it into the appropriate cell in a spreadsheet.

651. Furthermore, a payout of 29:1 or 30 for 1 is known in the art, for instance, as depicted in the exemplary image of IGT's Wheel of Fortune bonus wheel from the background section:



Wheel of Fortune wheel, excerpt[62]

652. Therefore Kido and Yee, in combination with a POSITA's common general knowledge, render obvious this element.

5. Claim 17: The method of claim 16, further comprising indicating "500×" at the first selected position on the roulette board in the first graphical user interface.

653. In my opinion, Kido and Yee render this claim obvious for the reasons described for Claim 7.

[62] https://www.youtube.com/watch?v=MthxLr6sobU&ab_channel=CerealMarshmallows

6. Claim 18: The method of claim 11, wherein the first increased payout is 49:1.

654. In my opinion, Kido and Yee render this claim obvious for the reasons described for Claim 8.

7. Claim 20: The method of claim 18, wherein the first non-selected payout is 29:1.

655. In my opinion, Kido and Yee render this claim obvious for the reasons described for Claim 9.

8. Claim 27: The non-transitory computer-readable medium of claim 26, wherein the method further comprises indicating "500×" at the first selected position on the roulette board in the first graphical user interface.

656. In my opinion, Kido and Yee render this claim obvious for the reasons described for Claim 7.

9. Claim 28: The non-transitory computer-readable medium of claim 21, wherein the first increased payout is 49:1.

657. In my opinion, Kido and Yee render this claim obvious for the reasons described for Claim 8.

10. Claim 29: The non-transitory computer-readable medium of claim 28, wherein the first non-selected payout is 29:1.

658. In my opinion, Kido and Yee render this claim obvious for the reasons described for Claim 9.

C. Ground 3: Baron

659. In my opinion, as set forth below, claims 1-2, 4-6, 10-12, 14-16, 19, 21-22, 24-26, and 30 of the '371 patent are unpatentable as being anticipated by Baron, or obvious in view of the disclosures of Baron.

1. Claim 1

a. [Preamble] A system for wagering, comprising:

660. To the extent the preamble is limiting, Baron discloses a system for wagering. Baron discloses that "Fig. 6 is a perspective view of an illustrative table 400 configured for implementation of embodiments of wagering games according to the present disclosure." Baron at [0078]. "The table 400 may include a plurality of player stations 412 (which) may include a separate player interface 416 (that) may be coupled respectively to its own local game processor 414." Baron at [0080]. Further, "a central game processor 428 … 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." Baron at [0080]. Therefore, Baron's table 14 is a "system for wagering" as recited in the preamble of claim 1. In addition, the "memory" in Baron is a computer-readable medium containing instructions to perform a method for wagering. Baron at

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

[0080]. Therefore, Baron discloses a "non-transitory computer-readable medium" as recited in the preamble of claim 21.

661. Baron also discloses "methods of administering wagering games for casinos and other gaming establishments, and related systems and apparatuses." Baron at [0001], *see also* Baron at Fig. 6, Fig. 9, Fig. 11, [0016], [0019]-[0020] (both "a schematic block diagram of a gaming system for implementing embodiments of wagering games"). Further, Baron at Fig. 1 is "a flowchart diagram of a method of administering a wagering game." Baron at [0011]. Baron is also titled "Methods of Administering Wagering Games of Roulette with Progressive Side Wagers." (Baron at Title)

662. Therefore Baron discloses this element.

b. [Element 1] a ball;

663. Baron also discloses "a spinning, physical roulette wheel 406 that may be configured to receive a ball or other indicator, which may come to rest in individual, separate sections with numbers and colors therein to generate a random outcome for a round of roulette." Baron at [0082], Fig. 6; *see also* Baron at [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]. Therefore, Baron discloses this element.

c. [Element 2] a roulette wheel having a plurality of positions into which the ball can land after a spin of the roulette wheel; and

664. Baron also discloses "a spinning, physical roulette wheel 406 that may be configured to receive a ball or other indicator, which may come to rest in individual, separate sections with numbers and colors therein to generate a random outcome for a round of roulette." Baron at [0082], Fig. 6; *see also* Baron at [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]. Therefore, Baron discloses this element.

d. [Element 3] at least one hardware processor collectively configured to:

665. As described for the Preamble, Baron discloses that table 400 may include "a combination of individual local game processors 414 and the central game processor 428." Baron at [0080]. Baron explains that "[e]ach 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." Baron at [0080]. Baron also explains that certain embodiments use "a combination of individual local game processors 414 and the central game processor 428," and that "[e]ach 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." Baron at [0080]. The central game processor 428 and local game processors 414 disclose the claimed "at least one hardware processor." As discussed in more detail below, the game processors 414, 428 are collectively configured to implement each of the steps of claims 1, 11, and 21.

666. Baron further discloses that "Fig. 11 is a simplified block diagram showing elements of computing devices that may be used in systems and apparatuses of this disclosure" and goes on to say that "the processors 642 may be configured as a general-purpose processor such as a microprocessor (or) any processor, controller, microcontroller, or state machine (and) may also be implemented as a combination of computing devices, such as a combination of a DSP and a microprocessor, a plurality of microprocessors, one or more microprocessors in conjunction with a DSP core, or any other such configuration." Baron at [0120]-[0122], Fig. 11 ("Processor(s) 642"). A "general-purpose processor," "microprocessor," and "microcontroller," as well as "processor(s)" depicted on a block diagram of elements of computing devices, are all disclosures of at least one "hardware processor." Therefore, Baron discloses this element.

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;

667. Baron discloses generating a plurality of roulette outcomes "in a single round of the wagering game," and that "each roulette outcome may be randomized independently from the other roulette outcomes." Baron at [0028], [0039]-[0041]. One of the roulette outcomes, such as a primary roulette outcome, "may be generated by introducing a physical outcome identifier (e.g., a ball) into a physical spinning roulette wheel and permitting the outcome identifier to come to rest on a roulette outcome" and another "may be generated utilizing a random number generator (e.g., operated by a control circuit)." Baron at [0039]-[0041]. These outcomes generated by the random number generator 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. Baron at [0041]. Figure 3 of Baron, which is a display layout for a "method of administering a wagering game," (Baron at [0013]), contains an outcome display area 124 that shows one primary outcome (24) and two ancillary outcomes (also 24), all three of which are for a position on the roulette wheel (24). Baron at Fig. 3. Baron thus discloses a processor electronically generating at least one roulette outcome using a random number

generator, i.e., "randomly or pseudo-randomly select[ing] a first selected position of the plurality of positions on the roulette wheel."

668. Baron discloses that the "randomly or pseudo-randomly . . . first selected position" has an increased payout. For example, Figure 3 of Baron discloses three randomly generated roulette outcomes, one of which is a primary outcome (24) and two of which ancillary outcomes (also 24). Baron at Fig. 3. When the player's bet (the "predicted roulette outcome" in Baron) matches two of the three randomly generated roulette outcomes, the player receives a payout of 100:1. Baron at Fig. 3, [0045]. When the player's bet matches all three randomly generated roulette outcomes, the player receives a payout of "POT." Baron at Fig. 3, [0045]. In these two situations, the player receives an increased payout when compared to the normal roulette payout of 35:1. Thus, Baron discloses that the "randomly or pseudo-randomly . . . first selected position" has an increased payout.

669. In Baron, the randomly generated outcomes and their associated increased payouts are for a spin of the roulette wheel. Baron explains that the plurality of roulette outcomes are "generated in a single round of the wagering game." Baron at [0039], [0028]. Baron's detailed discussion of Figure 3 states that the "randomized roulette outcomes [are] for the current round of play." Baron at [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. Baron at Fig. 1. Therefore Baron discloses generating these roulette outcomes, and their associated increased payouts, are "for the spin of the roulette wheel."

670. It is inherent that if two roulette outcomes are generated in a single round, one using a computerized RNG and another using a physical ball and wheel, that the RNG-generated outcome is generated either before or after the ball being used to generate the physical outcome falls into an outcome position in the wheel. Therefore, Baron inherently discloses both possibilities.

671. Baron also discloses that a processor may automatically generate the roulette outcomes "randomly at the close of wagering or at the beginning of a new round of play." Baron at [0088]. As described herein, wagering can close at a physical roulette table after the ball has been released into the wheel, but before the ball has come to rest in a pocket (fallen into an outcome position). At the beginning of a new round of play is also before the ball has fallen into an outcome position. Therefore, Baron discloses a processor randomly generating a roulette outcome ("first selected position on the roulette wheel") prior to the ball falling into the outcome position.

672. Furthermore, a POSITA would have understood that a physical ball takes several seconds to revolve around and fall into an outcome position on a roulette wheel, while a computer takes mere milliseconds to generate a roulette

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

outcome with an RNG. Therefore, whenever the process to generate both outcomes starts at the same time (e.g., per Baron at [0039]-[0041] or [0088]), the RNG-generated number is necessarily selected by the processor before the ball falls into a position on the physical wheel.

673. Baron discloses that its randomly generated outcome, i.e., the claimed "first selected position," is the same as the predicted roulette outcome chosen by the player. Specifically, Baron discloses "comparing each roulette outcome to the predicted roulette outcome" and paying a payout when "at least one roulette outcome is the same as the predicted roulette outcome." Baron at [0042]-[0043]. Since one of the roulette outcomes is the RNG-generated outcome described in this element (the "first selected position"), and the predicted roulette outcome is the position wagered upon, Baron discloses that the first selected position is the same as position on which the player wagered. *See also* Baron at Fig. 3 (providing for increased payouts of 7:1, 100:1, and POT as the number of randomly generated roulette outcomes that match the predicted roulette outcome (bet) increase); Baron at [0045].

674. Baron's disclosure at [0088] cited for this element refers to table 470 (see Fig. 7), while the earlier-cited disclosures at [0080]-[0084] refer to table 400 (see Fig. 6), however Baron also teaches that its embodiments may be combined while still being within the scope of its disclosure. Baron at [0145]. To the extent

it is argued that one specific embodiment in Baron does not disclose all the claim elements, it is nevertheless my opinion that it would have been obvious to a POSITA combine the disclosures of Baron with itself, since Baron expressly teaches as much. Further, to the extent a POSITA would need motivation to do so, Baron provides it. Baron at [0002].

675. Therefore, Baron discloses this element.

f. [Element 5] determine that the ball has landed into the first selected position for the spin; and

676. Baron discloses generating roulette outcomes, including by using a physical ball and roulette wheel, in a single round of the wagering game. Specifically, Baron discloses "a physical outcome identifier (e.g., a ball)" and "the outcome identifier may come to rest on a roulette outcome, and the roulette outcome may be … automatically detected (e.g., using one or more sensors) and conveyed to a control circuit." Baron at [0040]. The roulette outcomes are generated "in a single round of the wagering game." Baron at [0028], [0039]. Therefore, Baron discloses at least one hardware processor collectively configured to determine that the ball has landed into a position "for the spin [of the roulette wheel]."

677. Baron also discloses "comparing each roulette outcome to the predicted roulette outcome" and "each roulette outcome generated in a given round of play may be compared to the roulette outcome or roulette outcomes predicted

for that round … by electronically comparing detected (e.g., using sensors) or entered (e.g., utilizing a croupier interface) roulette outcomes stored in memory utilizing a control circuit." Baron at [0042].

678. Baron discloses a first player making a straight up bet on a first position, which is a predicted roulette outcome. Baron at [0028], [0038]. Baron also discloses payout scenarios "when one generated roulette outcome matches one of the predicted roulette outcomes" and "when two generated roulette outcomes match each other and one of the predicted roulette outcomes." Baron at [0043]. Therefore, Baron discloses determining that the ball has landed into the first selected position (the position wagered upon/predicted by the first player) for the spin (of the roulette wheel).

679. Therefore, Baron discloses this element.

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.

680. 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 "each player station 412 may include a separate player interface 416,

which may be used for accepting wagers[.]" Baron at [0080]. Baron also discloses that the "player interfaces 416 may include, for example, a display screen in the form of a touchscreen." Baron at [0080]. Baron thus describes touchscreens, *i.e.*, GUIs, which players use to place bets on numbers on a roulette wheel.

681. As Baron explains, the first increased payout of 100:1 is applicable when the player's first bet (predicted roulette outcome) matches the number into which the ball has fallen and also one of the randomly generated plurality of roulette outcomes. Baron at [0041], [0045], Fig 3. These roulette outcomes are generated in "a single round of the wagering game," (Baron at [0028], [0039]) 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.

682. 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 above, when the player bets on a number and that number matches one of a plurality of randomly generated roulette outcomes and also 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. Baron at [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." Therefore Baron discloses this element.

2. Claim 2: The system of claim 1, further comprising a display that identifies the first selected position.

683. Baron discloses an "electronic display" such as "separate display 430" that "may be used for display of … information regarding the wagering game (including) current round information ... as described previously in connection with FIGS. 2 and 3." Baron at [0079], *see also* [0080], [0083], [0087]. Baron's Fig. 3 discloses a display that indicates the plurality of generated roulette outcomes, including a roulette outcome that corresponds to the first selected position of Element 4 in claim 1. Insofar as the "primary outcome" depicted in Fig. 3 is the outcome generated via physical ball and wheel, the other two outcomes (when selected by a computerized RNG) are examples of a first selected position:

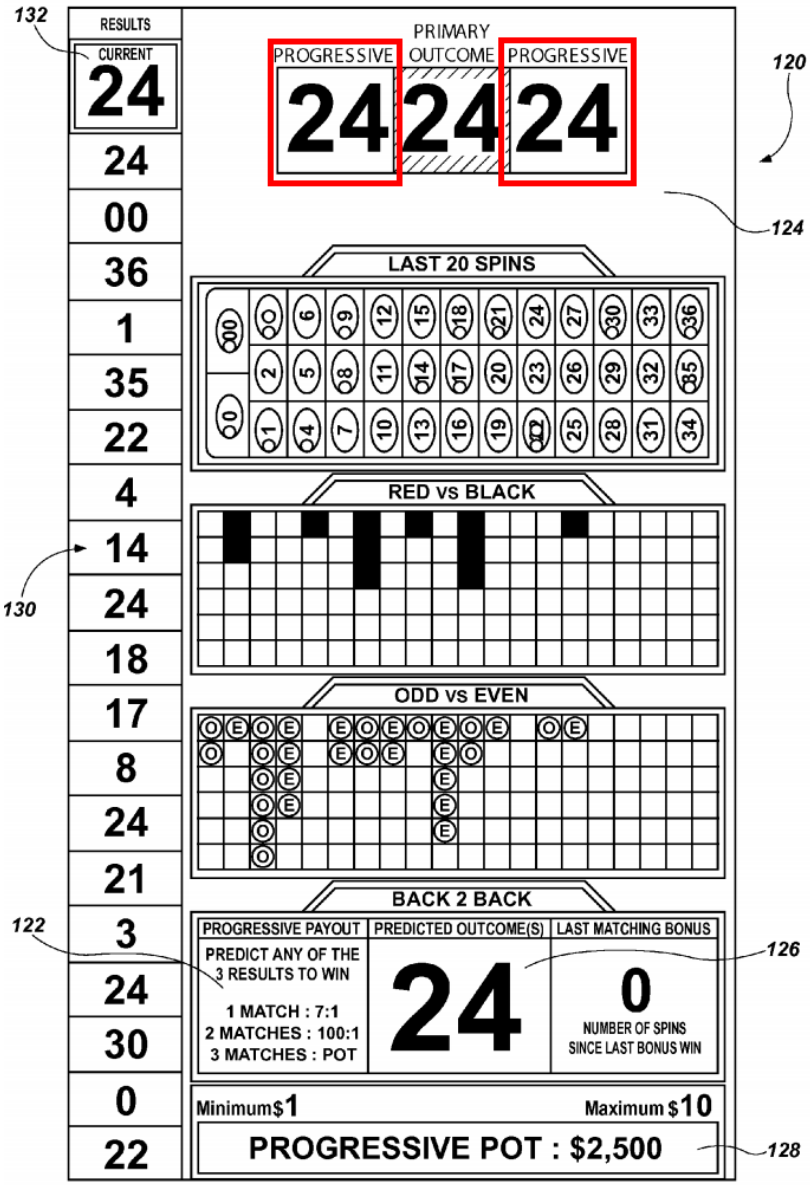


FIG. 3

Baron at Fig. 3, highlighted

684. Baron discloses that the display 430 is adjacent to the roulette wheel, as depicted in Figs. 6 and 7:

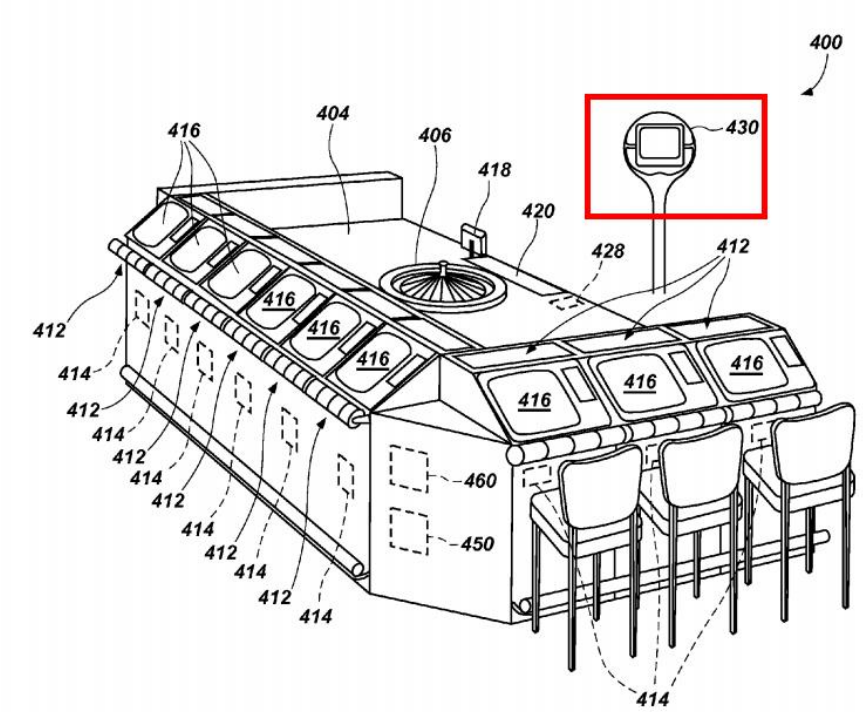


FIG. 6

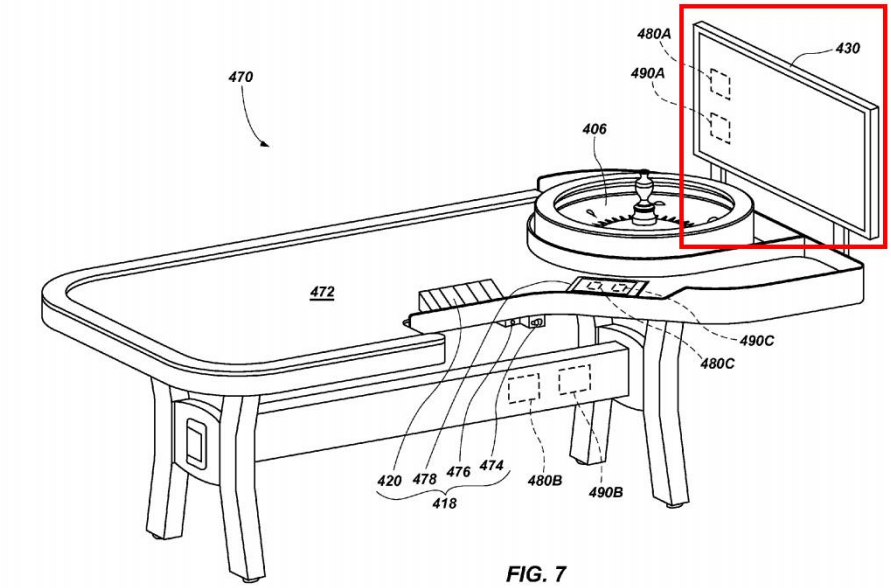


FIG. 7

Baron at Figs. 6 and 7, highlighted

685. Although the claim is not so limited, Baron discloses that a processor may both generate a random roulette outcome (the "first selected position") and

control the display of information on the video display 430, including winning game conditions associated with the random game outcomes (which necessarily includes indicating what those outcomes are). Baron at [0087], [0088].

686. Therefore Baron discloses this element.

3. Claim 4: The system of claim 1, wherein the at least one hardware processor is further collectively configured to:

a. 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 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.

687. Baron discloses randomly generating a plurality of roulette outcomes "in a single round of the wagering game," and that "each roulette outcome may be randomized independently from the other roulette outcomes." Baron at [0028], [0039]-[0041]. Outcomes generated by the random number generator 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. Baron at [0041]. Figure 3 of Baron, which is a display layout for a "method of administering a wagering game," (Baron

at [0013]), contains an outcome display area 124 that shows one primary outcome (24) and two ancillary outcomes (also 24). Baron at Fig. 3. Baron thus discloses a processor randomly or pseudo-randomly generating more than one roulette outcome using a random number generator, i.e., "randomly or pseudo-randomly select[ing] a second selected position of the plurality of positions on the roulette wheel."

688. Baron discloses that the second selected position has a second increased payout that is different than the first increased payout. Baron discloses that the number of roulette outcomes generated may be greater than four, (Baron at [0039]), and that the payout amount increases as the number of roulette outcomes matching the bet increases (Baron at [0045]). *See also* Baron at Fig. 3. In view of this disclosure in Baron, a POSITA 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. In this example, where the primary outcome and one of 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.

689. The second increased payout is for the spin of the roulette wheel. Baron explains that the plurality of roulette outcomes are "generated in a single round of the wagering game." Baron at [0039], [0028]. Baron's detailed discussion of Figure 3 states that the "randomized roulette outcomes [are] for the current round of play." Baron at [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. Baron at Fig. 1. Therefore Baron discloses generating these roulette outcomes "for the spin of the roulette wheel."

690. The random or pseudo-random selection of the second selected position is prior to the ball landing into any of the plurality of positions on the roulette wheel for the spin. It is inherent that if two roulette outcomes are generated in a single round, one using a computerized RNG and another using a physical ball and wheel, that the RNG-generated outcome is generated either before or after the ball being used to generate the physical outcome falls into an outcome position in the wheel. Therefore, Baron inherently discloses both possibilities.

691. Baron also discloses that a processor may automatically generate the roulette outcomes "randomly at the close of wagering or at the beginning of a new round of play." Baron at [0088]. As described herein, wagering can close at a physical roulette table after the ball has been released into the wheel, but before the ball has come to rest in a pocket (fallen into an outcome position). At the beginning of a new round of play is also before the ball has fallen into an outcome position.

692. Furthermore, a POSITA would have understood that a physical ball takes several seconds to revolve around and fall into an outcome position on a roulette wheel, while a computer takes mere milliseconds to generate a roulette outcome with an RNG. Therefore, whenever the process to generate both outcomes starts at the same time (e.g., per Baron at [0039]-[0041] or [0088]), the RNG-generated number is necessarily selected by the processor before the ball falls into a position on the physical wheel. Therefore, Baron discloses a processor randomly generating more than one roulette outcome ("randomly or pseudo-randomly selecting[ing] a second selected position") prior to the ball landing into any of the plurality of positions on the roulette wheel.

4. Claim 5: The system of claim 1, wherein the at least one hardware processor is further collectively configured to cause the ball and the roulette wheel to automatically spin.

693. 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." Baron at [0088]; *see also* Baron at [0068]. A POSITA would understand that "actions" to be performed automatically for administering a wagering game, as referenced in Baron, would include causing the ball and roulette wheel to spin, as that is a required step in any roulette game. Similarly, a POSITA would have recognized the benefits of using the hardware processors disclosed in Baron to achieve these automatic actions, and thus would have immediately envisioned using the processors in Baron in such a way.

694. Baron also discloses that a ball "may be automatically introduced into the roulette wheel." Baron at [0068]. The '244 publication to Baron and Haushalter, incorporated into Baron, further discloses that "a roulette wheel may include any one or combination of an actual physical roulette wheel, a roulette wheel implemented with computer software, or a roulette wheel implemented with an electric circuit. Also, a roulette wheel spin may include spinning an actual roulette wheel manually or automatically, launching a ball manually or

automatically, or obtaining a spin result through a computer software or electric circuit implemented roulette spin." '244 publication at [0034].

695. Therefore Baron (including the '244 publication) discloses this element.

5. Claim 6: The system of claim 1, 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.

696. Figure 6 of Baron discloses a table 400 with player stations 412. Baron explains that "[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.). 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." Baron at [0080]. Thus, Baron discloses that each player station 412 includes a player interface 416 that may include "a display screen in the form of a touchscreen." Baron at [0080].

697. 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)." Baron at [0079].

698. Figure 2 of Baron 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 …." Baron at [0056].

699. 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." Baron at [0057].

700. The wagering area 118 of Figure 2—and the similar description of the "last 20 spins" section on the display layout 120 of Figure 3—is a "roulette board." While Baron states that the roulette layout in Figure 2 may be implemented on an "electronic display" (Baron at [0054]), Baron does not explicitly state that it is presented on a player interface 416. However, a POSITA would have found it obvious to implement the roulette wagering layout in Figure 2 on the touchscreen of Baron's player interface since 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 virtual chips, game outcomes, etc.)," and the wagering area 118 is "configured for acceptance of … roulette bets." Baron at [0056], [0080].

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

6. Claim 10: The system of claim 1, wherein the first bet is a bet on a single position on the roulette wheel.

702. Baron discloses multiple player stations 412, each of which includes a player interface 416 though which a player can place wagers via a touchscreen, including wagers on only a single position of the roulette wheel. Baron at [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." Baron at [0011], [0028].

703. Therefore Baron discloses this element.

7. Claim 11

a. [Preamble] A method for wagering, comprising:

704. As described for Claim 1, Baron discloses a method for wagering. Therefore, to the extent the preamble is limiting, Baron discloses this element.

b. [Element 1] 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;

705. Baron discloses these elements for the reasons described for Claim 6 above.

c. [Element 2] randomly or pseudo-randomly selecting a first selected position of a plurality of positions on a roulette wheel to have a first increased payout for a spin of the roulette wheel prior to a ball landing into any of the plurality of positions on the roulette wheel for the spin;

706. Baron discloses these elements for the reasons described for Claim 1, Element 4.

d. [Element 3] determining that the ball has landed into the first selected position for the spin; and

707. Baron discloses this element for the reasons described for Claim 1, Element 5.

e. [Element 4] 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 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.

708. Baron discloses these elements for the reasons described for Claim 1, Element 6.

8. Claim 12: The method of claim 11, further comprising causing the first selected position to be identified on a display.

709. Baron discloses this element for the reasons described for Claim 2.

9. Claim 14: The method of claim 11, further comprising:

a. randomly or pseudo-randomly selecting 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 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 position for the spin, and wherein the second increased payout is different than the first increased payout.

710. Baron discloses these elements for the reasons described for Claim 4.

10. Claim 15: The method of claim 11, further comprising causing the ball and the roulette wheel to automatically spin.

711. Baron discloses this element for the reasons described for Claim 5.

11. Claim 16: The method of claim 11, wherein the first selected position is highlighted in the roulette board.

712. Baron discloses this element for the reasons described for Claim 6.

12. Claim 19: The method of claim 11, wherein the first bet is a bet on a single position on the roulette wheel.

713. Baron discloses this element for the reasons described for Claim 10.

13. Claim 21

a. [Preamble] A non-transitory computer-readable medium containing computer executable instructions that, when executed by a processor, cause the processor to perform a method for wagering, the method comprising:

714. Baron discloses this element for the reasons described for Claim 1, Preamble. The "memory including one or more programs related to the rules of game play" disclosed in Baron at [0080] is disclosure of this element. Further, Baron discloses "memory 646 [that] may be used to hold computing instructions, data, and other information for performing a wide variety of tasks including administering wagering games of the present disclosure" and may be any of a number of known types of computer memory including SRAM, DRAM, ROM, Flash, etc. Baron at [0124]. Baron also discloses that any feature from one disclosed embodiment (including this memory) may be combined with features

with another disclosed embodiments, such as those described for Claim 1. Baron at [0145]. Therefore, to the extent the preamble is limiting, Baron discloses this element.

b. [Element 1] randomly or pseudo-randomly selecting a first selected position of a plurality of positions on a roulette wheel to have a first increased payout for a spin of the roulette wheel prior to a ball landing into any of the plurality of positions on the roulette wheel for the spin;

715. Baron discloses these elements for the reasons described for Claim 1, Element 4.

c. [Element 2] determining that the ball has landed into the first selected position for the spin; and

716. Baron discloses this element for the reasons described for Claim 1, Element 5.

d. [Element 3] 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 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.

717. Baron discloses these elements for the reasons described for Claim 1, Element 6.

14. Claim 22: The non-transitory computer-readable medium of claim 21, wherein the method further comprises causing the first selected position to be identified on a display.

718. Baron discloses this element for the reasons described for Claim 2.

15. Claim 24: The non-transitory computer-readable medium of claim 21, wherein the method further comprises:

a. randomly or pseudo-randomly selecting 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 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.

719. Baron discloses this element for the reasons described for Claim 4.

16. Claim 25: The non-transitory computer-readable medium of claim 21, wherein the method further comprises causing the ball and the roulette wheel to automatically spin.

720. Baron discloses this element for the reasons described for Claim 5.

17. Claim 26: The non-transitory computer-readable medium of claim 21, wherein the method further comprises causing 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.

721. Baron discloses this element for the reasons described for Claim 6.

18. Claim 30: The non-transitory computer readable medium of claim 21, wherein the first bet is a bet on a single position on the roulette wheel.

722. Baron discloses this element for the reasons described for Claim 10.

D. Ground 4: Baron and Yee

723. In my opinion, as set forth below, claims 7-9, 17-18, 20, and 27-29 of the ’371 patent are unpatentable as obvious in view of the combined disclosures of Baron and Yee.

1. Motivation to Combine Baron and Yee

724. In my opinion, a POSITA would have looked to both Baron and Yee when considering roulette gaming machines. Both Baron and Yee are in the same field of endeavor: they are both directed toward roulette gaming machines and variations of roulette involving a comparison between a randomly generated number with a number generated by a spin of a roulette wheel. Baron and Yee Abstracts. A POSITA would have understood that a number generated by a spin of a roulette wheel *is* a randomly generated number, and in view of the numerous prior art embodiments of the purported innovation in the challenged patents (*see* Section X, *supra*), a POSITA would have naturally looked to other examples or variations of those embodiments when considering roulette gaming machines and variations of roulette. Baron and Yee also both teach the benefits of increasing a player’s desire to play, such as through increased payouts. Baron at [0002], Yee at

1:21-26. Baron and Yee also both relate to computerized roulette systems having an increased payout feature that is based on a randomly selected number. In addition, a POSITA 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.

725. Furthermore, Baron and Yee were both filed by the same company, both depict several of the same or very similar figures (e.g., Baron Fig. 3 vs. Yee Fig. 3; Baron Fig. 6 vs. Yee Fig. 5A; Baron Fig. 5 vs. Yee Fig. 4; Baron Fig. 7 vs. Yee Fig. 5B; Baron Fig. 8 vs. Yee Fig. 6), and both describe "step 108" as a way to resolve their respective wagers by comparing roulette outcomes and by incorporating techniques disclosed in U.S. patent application 13/631,598 (which also names Gabriel Baron (inventor of the "Baron" reference) as an inventor). In short, Baron and Yee are two roulette gaming systems produced by the same casino game development organization and a POSITA would naturally have considered them together when reviewing the prior roulette-related art.

A POSITA would have been motivated, when considering Baron's disclosure of an increased payout (e.g., Baron at Fig. 3, [0045]), to provide improvement by visually displaying a large numeric award, as taught by Yee. Further, Baron describes that "players are generally open to, and sometimes specifically seek out, new and more interesting ways to play roulette." Baron at

[0002]. A POSITA would have recognized that displaying the payout enhancement (as taught in Yee) would add excitement for players, and a POSITA would have been motivated to use this feature in Baron for at least this reason.

2. Claim 7: The system of claim 6, wherein the at least one hardware processor is further configured to indicate "500×" at the first selected position on the roulette board in the first graphical user interface.

726. I am informed by counsel that an indication of "500x" at a position on a roulette board in a graphical user interface is non-limiting printed matter.

727. Nevertheless, both Baron and Yee disclose "indicating" payout amounts "at" respective positions on wagering layouts. For instance, Fig. 2 of Baron and Fig. 2 of Yee both indicate the traditional roulette payout multiplier "2 to 1" for each "column" wager "at" the position on the layout corresponding to the relevant number(s). Baron at Fig. 2; Yee at Fig. 2, EX1032 at 12.

728. Yee also specifically discloses the claimed multiplier of 500x ("500 times"). Yee at 2:19, 8:17, 9:4-6, Fig. 2 numeral 122. Yee also discloses the multiplier of 500x is used to multiply the wager amount when "the randomly generated number" (e.g., the results of a physical roulette wheel spin) "is identical to a [different] randomly generated number." Yee at 2:20-30. Yee also discloses that randomly generating a number can be performed "by activating an electronic random number generator." Yee at 4:8. Therefore, Yee discloses that a computer-generated random number can be compared to the results of a roulette spin and, if

they are identical, pay a 500x multiplier. A POSITA 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 and display a 500x multiplier in Baron, as disclosed in Yee.

729. Further, a POSITA would also have known that Yee was far from the first game to disclose using a 500x multiplier. For example, as illustrated in the background section, IGT's popular Wheel of Fortune slot machine displayed a 500x award on its bonus wheel. The literal text reads only 500, not "500x," but since the listed payout serves to multiply the credit value (which may be $1, $2, $0.25, etc), a POSITA would have understood that the payout is in fact a multiplier. Further, IGT's Wheel of Fortune literally depicts multipliers with an "x" elsewhere in its symbol set.



Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

Wheel of Fortune wheel, excerpt[63]

730. It would have been obvious to a POSITA that, once a random multiplier has been selected, it should be displayed to the player, otherwise the player would not know what it is. As described for Element 6 of claim 1, Baron discloses displaying multipliers of 7:1 or 100:1 adjacent to the number needed to win. Baron at Fig. 3 (showing 7:1 or 100:1 next to "predicted outcome" 24). Yee also discloses displaying a multiplier (e.g., 500x or 1000x) adjacent to the number needed to win it. Yee at 14:23-34, Fig. 3 (showing "multiplier" x1000 next to "number to match" 24):

[63] https://www.youtube.com/watch?v=MthxLr6sobU&ab_channel=CerealMarshmallows

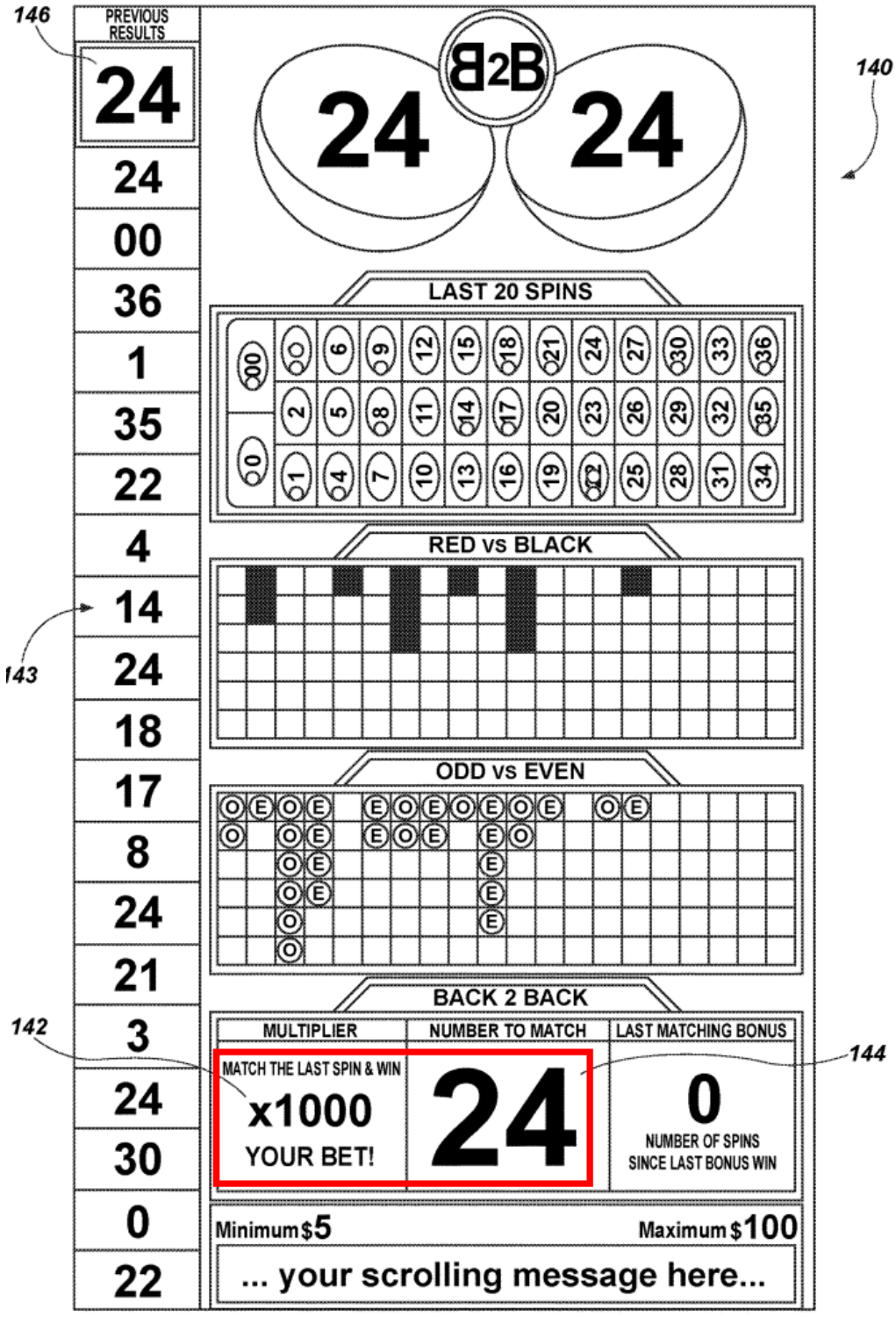


FIG. 3

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

Yee at Fig. 3 (highlighted). 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!" Yee at 13:52-56, Fig. 3.

731. I note that Yee discloses a multiplier of 1000 with the "x" before as well as after the number (e.g., "1,000x" vs. "x1000," indicating the equivalence of those written expressions. Yee at Fig. 2, numeral 126, *cf.* Yee at Fig. 3 numeral 142.

732. In view of Baron's disclosure (via the incorporated Frost reference) that the player terminal will "flash" locations on the betting layout (Frost at 5:55-60), or Baron's disclosure (via the incorporated Baron and Haushalter reference) that generated roulette outcomes may be indicated with dots at their locations on the betting layout ('244 reference at Fig. 3B, [0054]), a POSITA would have thought it obvious to substitute or add Yee's disclosure of a multiplier 500x (Yee at Fig. 2 numeral 126, "500x") displayed at those same locations to arrive at the claimed indication. Doing so would serve two purposes: displaying to the player what the payout multiplier is, and what number is needed to win it.

733. Yee also discloses that the multiplier such as 500x may be displayed "on a common game display … in advance of displaying the game outcome [because it] adds anticipation and further enjoyment to the game." Yee at 10:61-67. Yee also discloses that "some embodiments may be implemented at locations

that include a plurality of player stations [that] include an electronic display of game information" including "virtual chips [and] wagers made." Yee at 18:62-66. Yee also discloses that the game outcome in a virtual roulette game may be "displayed at the individual player interfaces 416 or on a common display 430." Yee at 19:67-20:2. Therefore, in my opinion, a POSITA would have thought it obvious in a game with individual player interfaces to display the multiplier (such as 500x) on the individual player interface as well as, or instead of, a common game display, since doing so would fulfill both inventors' (Baron and Yee) goal of providing "new and more interesting ways to play roulette, particularly when the reward for a winning outcome at the end of a round of play … may be enhanced." Baron at [0002].

734. Yee discloses that a diagram of a playing surface 120 may be "a felt layout on a physical gaming table [] or an electronic representation on a video display … 416" Yee at 12:56-62, Figs. 2, 5A:

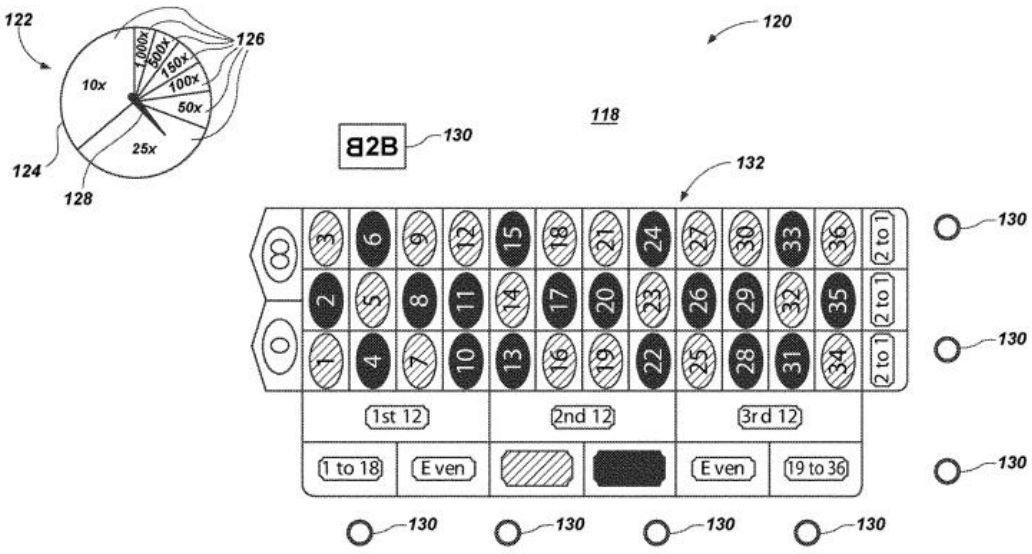


FIG. 2

Yee at Fig. 2, playing surface 120.

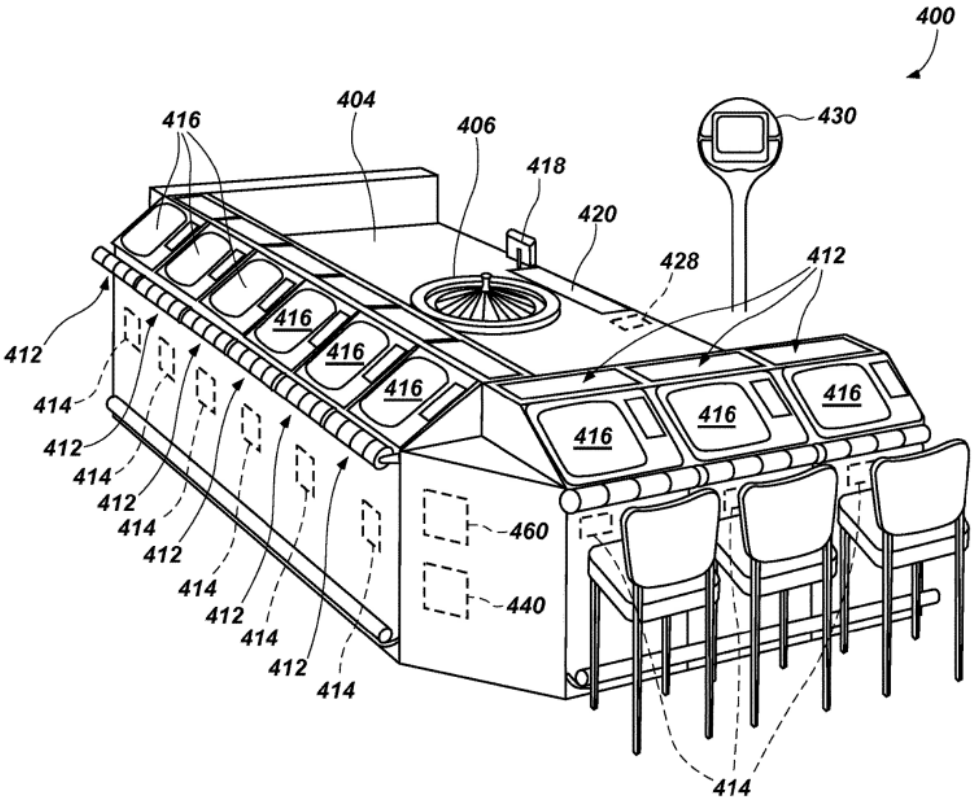


FIG. 5A

Yee at Fig. 5A, individual player interfaces numerals 416.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

735. When the layout 120 of Fig. 2 is displayed on an individual player interface such as 416 of Fig. 5A, a POSITA would also have found it obvious to display the multiplier on the individual player interface at the position on the layout corresponding to the target number. As described in the background section, several other casino games did the same (e.g., craps, where the payout of 30-1 is displayed at the position for the 12 (boxcars) outcome), and it would have been obvious to apply that same technique to a video version of roulette.

736. Therefore, in my opinion, a POSITA would have found it obvious in view of the combination of Baron and Yee both to select and indicate a multiplier of 500x, and to indicate that multiplier at the first selected position on a roulette board in the first graphical user interface as was already known in the art. Therefore, in my opinion, the combination of Baron and Yee render this claim obvious.

3. Claim 8: The system of claim 1, wherein the first increased payout is 49:1.

737. Yee discloses that "a random multiplier selection apparatus may be used to randomly select a multiplier from a group of fixed multipliers for a payout on the wager" and "an amount of the payout being equal to an amount of the wager multiplied by the randomly selected multiplier." Yee at 1:63-2:9. Therefore, Yee discloses a payout of "N for 1" since the original wager is returned as part of the disclosed payout. Yee discloses several examples of fixed multipliers, including

"50 times" or "50x." Yee at 2:16-19, Fig. 2 numeral 126. Therefore, Yee discloses a 50 for 1 payout. As described in the background section, a payout of 50 for 1 is equivalent to a payout of 49 to 1 or 49:1. Therefore Yee inherently discloses this element.

738. If it is found that Yee does not disclose 49:1 (for example, because the phrase "49:1" is not literally present in Yee), it would have been obvious to a POSITA that Yee's total payout of 50x was equivalent to a payout of 49:1, for the reasons described in the background section.

739. More generally, even if Yee did not disclose or render obvious a payout of 49:1, Baron literally discloses payouts of 7:1 and 100:1. Baron at Fig. 3. In view of their common general knowledge, a POSITA would have found it obvious that a payout for a particular game event could be any of those payouts, or any other payout, so long as the overall house edge of the game remained suitable. In other words, a POSITA would understand that the process of casino game design includes setting payouts to achieve a desired overall house edge. If nothing else, Baron's disclosure that a payout for a number of "matches" could be 7:1 or 100:1 per Fig. 8 would suggest to a POSITA that a payout could be anything within that range, including 49:1.

740. Furthermore, a payout of 49:1 or 50 for 1 is known in the art, for instance, as depicted in the exemplary image of IGT's Wheel of Fortune bonus wheel from the background section:



Wheel of Fortune wheel, excerpt[64]

741. Therefore Baron and Yee, in combination with a POSITA's common general knowledge, render obvious this element.

4. Claim 9: The system of claim 8, wherein the first non-selected payout is 29:1.

742. As described in the background section, a POSITA would have understood that in a game such as roulette where the probability of each outcome is equal and constant, if some game payouts increase and the goal is to maintain (or approximately maintain) the house edge, other game payouts would necessarily need to decrease to compensate or, to use the phrase in the challenged patents,

[64] https://www.youtube.com/watch?v=MthxLr6sobU&ab_channel=CerealMarshmallows

"account for" the increased game payouts. A POSITA 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. There are only a limited number of possibilities for payouts less than 35:1, including simply returning the player's money (a "push"), and each one of those payout amounts including 29:1 would have been obvious in view of a POSITA's common general knowledge.

743. Further, the choice of a particular payout in a game is often dictated by mathematics and the practical realities of game design, including the need to maintain a suitable house edge. In my opinion, a payout of 29:1 is a simple matter of design choice, and the challenged patents do not disclose any rationale or unexpected results for the specific selection of 29:1 (as opposed to any other decreased payout). For instance, a prior art reference for casino game mathematics including roulette, the *Wizard of Odds,* described the impact of "short pays" on roulette games, where "roulette games don't pay the full 35 to 1 on single-number bets." EX1046 at 4. It presents a table illustrating the additional house edge when a straight up (single-number) bet pays less than 35 to 1. EX1046 at 4-5. A POSITA would have understood that adjusting roulette by making such short pays would provide additional theoretical money (measured as a percentage of the

wager) to the house, which may either be kept or given back in another part of the game by increasing pays elsewhere.

744. Further, a POSITA would have stumbled across a payout of 29:1 during the course of ordinary exploration of game design possibilities, even if they did not ultimately select it. For instance, Yee discloses payouts of 50x, 100x, and 150x, which is disclosure that one payout (150x) can be the sum of two others (50x and 100x). Yee also discloses payouts of 250x (250 for 1) and Baron discloses a payout of 7:1 (8 for 1), so it is obvious that another payout could be 258 for 1. Baron discloses selecting a specific position for a match payout. A POSITA would have understood that if a specific position on the roulette wheel paid 258 for 1 as suggested by Baron and/or Yee, and the overall house edge were to be maintained unchanged (at 5.26%) then each other non-selected number would need to have a decreased payout of 30 for 1 (i.e., 29:1) to compensate. More generally, payouts such as 49:1 and 29:1 (i.e., 50 for 1 and 30 for 1) are design choices made by game designers during the ordinary course of their work, and there is no teaching or suggestion in the challenged patents that the particular choices of 49:1 or 29:1 solve any particular problem or lead to any unexpected result. In my opinion, a POSITA would have been readily be able to predict and understand the impact of using any particular payout value, since game design was (and is) often done using

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

spreadsheets and evaluating the mathematical impact of a particular payout value like 29:1 is as simple as typing it into the appropriate cell in a spreadsheet.

745. Furthermore, a payout of 29:1 or 30 for 1 is known in the art, for instance, as depicted in the exemplary image of IGT's Wheel of Fortune bonus wheel from the background section:



Wheel of Fortune wheel, excerpt[65]

746. Therefore Baron and Yee, in combination with a POSITA's common general knowledge, render obvious this element.

5. Claim 17: The method of claim 16, further comprising indicating "500×" at the first selected position on the roulette board in the first graphical user interface.

747. In my opinion, Baron and Yee render this claim obvious for the reasons described for Claim 7.

[65] https://www.youtube.com/watch?v=MthxLr6sobU&ab_channel=CerealMarshmallows

6. Claim 18: The method of claim 11, wherein the first increased payout is 49:1.

748. In my opinion, Baron and Yee render this claim obvious for the reasons described for Claim 8.

7. Claim 20: The method of claim 18, wherein the first non-selected payout is 29:1.

749. In my opinion, Baron and Yee render this claim obvious for the reasons described for Claim 9.

8. Claim 27: The non-transitory computer-readable medium of claim 26, wherein the method further comprises indicating "500×" at the first selected position on the roulette board in the first graphical user interface.

750. In my opinion, Baron and Yee render this claim obvious for the reasons described for Claim 7.

9. Claim 28: The non-transitory computer-readable medium of claim 21, wherein the first increased payout is 49:1.

751. In my opinion, Baron and Yee render this claim obvious for the reasons described for Claim 8.

10. Claim 29: The non-transitory computer-readable medium of claim 28, wherein the first non-selected payout is 29:1.

752. In my opinion, Baron and Yee render this claim obvious for the reasons described for Claim 9.

XV. CONCLUSION

753. Based on the foregoing analysis, it is my opinion that the above described claims of the challenged patents are anticipated and/or obvious over the applied prior art as described herein.

XVI. RESERVATION OF RIGHTS

754. This declaration presents my opinions to date. As additional data, information, testimony, or expert reports from the various defendants become available to me or are provided to me, I may consider this information and I may find it appropriate to revise or supplement my analysis, opinions, and conclusions. Thus, I reserve the right to modify or supplement this declaration and the opinions contained herein.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001; and further that such willful false statements may jeopardize the validity of the application or any patent issued thereon. I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on May 29, 2025.

Stacy Friedman

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

APPENDIX A

APPENDIX A

MATERIALS REVIEWED

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Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

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27. https://www.youtube.com/watch?v=wrQIBAKuVSY&ab_channel=livedealercasinoorg
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Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

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Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

APPENDIX B

STACY A. FRIEDMAN

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SUMMARY

Creative technology product consultant with over 25 years' experience in product design, development, and IP strategy across several industry sectors, including enterprise software, mobile and online gaming, and casino gambling. Harvard degree in computer science, *magna cum laude*. Key product design resource for several small technology companies leading to over $500M in total M&A activity.

Named inventor on over 30 U.S. Patents. Managing an IP portfolio of several dozen assets including patents and trademarks. *Pro se* and counsel-assisted patent prosecution including initial specification/claims drafting, office action responses, and appeal brief drafting. Successfully negotiated several IP transactions.

Subject matter expert consulting and expert witness testimony in over 65 disputes or litigations in US and internationally (Canada, UK, Australia, Costa Rica). Matters include patent infringement, trade secret misappropriation, USPTO proceedings (IPR, CBM, PGR, *ex parte* reexamination), breach of contract, criminal proceedings, and pre-litigation analysis. Over 100 written expert reports or declarations. More than 40 appearances at deposition, hearing or trial, including sworn appearances in U.S. district courts, U.S. state courts, and patent courts in UK and Canada.

Expert analysis tasks included: patent acquisition advice, software source code analysis, review of specialty hardware (regulated gaming equipment), game mathematics analysis, technical systems analysis, prior art search/analysis, regulatory/legal compliance analysis, patent claim construction, patent validity and infringement, trade secret analysis, trade secret reverse engineering, gaming operations data, analysis of other experts' opinions.

EXPERT CONSULTANT EXPERIENCE

IPRs, networked gaming technology
Client: counsel for petitioner. Analysis: validity. 2025-ongoing.

Patent infringement and trade secret misappropriation, gaming technology
Client: confidential. 2024-ongoing.

Statutory question (arbitration), social casino products
Client: counsel for defendant. Analysis: state gaming statutes, product testing. Confidential settlement. 2024-2025.

Statutory question, gaming machines
Client: confidential. Analysis: state gaming statutes, gaming machine testing. 2024-ongoing.

Statutory question (arbitration), social casino products
Client: counsel for defendant. Analysis: Kentucky gaming statutes, product testing. Testimony: deposition. Favorable settlement shortly after my deposition. 2024.

Patent infringement, electronic gaming systems
Client: counsel for defendant. Analysis: claim construction, infringement, validity. 2024-ongoing.

Consumer protection action, online gaming products
Client: counsel for defendant. Analysis: parties' documentation, product testing. 2024-ongoing.

Patent infringement, gaming products
Client: counsel for defendant. Analysis: claim construction, infringement, validity. 2024-ongoing.

Consumer protection action, networked computing technology
Client: counsel for defendant. Analysis: parties' documentation. 2024-ongoing

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

Internet Sports Int'l v Amelco, contract and trade secret dispute, retail sports betting terminals
Client: Fennemore Craig for defendant. Analysis: parties' documentation and products, hardware and source code. Testimony: deposition. 2024-ongoing.

Pre-litigation patent infringement analysis, online gaming systems and methods
Client: counsel for potential defendant. Analysis: preliminary infringement analysis. Litigation averted. 2023-2024.

Breach of contract, gaming products
Client: counsel for defendant. Analysis: parties' documentation and products. 2023-ongoing.

Intuit v Samesurf, IPRs, synchronized web browsing technology
Client: McKool Smith for patent owner. Analysis: claim construction, validity. Testimony: declarations, deposition. Two patents invalidated, one not shown unpatentable. 2023-2024.

Samesurf v Intuit, patent infringement, synchronized web browsing technology
Client: McKool Smith for plaintiff. Analyses: claim construction, infringement, source code, product testing. Testimony: declaration. 2023-ongoing.

Blackhawk Network v SL Card, breach of contract, lottery products
Client: Baker Hostetler for plaintiff. Analysis: parties' documentation and products. Testimony: deposition, trial. 2023-ongoing.

TNT Amusements v Torch Electronics, unfair competition and civil RICO, gaming machines
Client: Bryan Cave for plaintiff. Analysis: hardware and source code, gaming machine functionality in view of state law. Testimony: depositions, hearing. 2023-ongoing.

Fremin et al. v Boyd Racing et al., constitutional question, historical horse racing (HHR)
Client: Breazeale, Sachse & Wilson for plaintiffs. Analysis: HHR machine functionality in view of Louisiana state constitution and other state laws. Testimony: affidavit. Summary judgment that law approving HHR without a vote was unconstitutional. 2023-2024.

Patent infringement, gaming technology
Client: counsel for defendant. Analyses: infringement, source code. Patent claims invalidated. 2022-2023.

Patent infringement, wagering systems and methods
Client: counsel for defendant. Analyses: claim construction, validity. Confidential settlement. 2022-2023.

Patent infringement, casino management systems
Client: counsel for defendant. Dismissed. 2022-2023.

Acres 4.0 v IGT, patent infringement, casino management systems
Client: Baker Hostetler for defendant. Analyses: infringement, practicing product, source code. Testimony: declaration. Confidential settlement. 2022-2024.

IGT v Zynga, patent infringement, networked gaming systems
Client: Baker Hostetler for plaintiff. Analyses: validity, infringement, source code. Testimony: declaration, deposition, jury trial. Jury verdict for defendant. 2022-2023.

Zynga v IGT, IPR, gaming systems and methods
Client: Baker Hostetler for patent owner. Analyses: claim construction, validity. Testimony: declaration, deposition. Claims found unpatentable. 2022-2023.

Acquisition consultation, networked gaming patents
Client: patent acquisition/monetization firm. Analyses: infringement claim charts, validity in view of same. 2022.

Schuster v. Wynn Resorts, unfair business practices and breach of contract, TITO ticket redemptions
Client: Garick Law for plaintiff. Analyses: contracts, documentary evidence, financial data. Testimony: declaration, deposition. Case dismissed. 2022-2023.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

Fortunet v. Playbook Publishing, misappropriation of trade secrets, proprietary wagering methods
Client: Hartwell Thalacker for plaintiff. Analysis: comparison of both parties' wagering methods. Testimony: bench trial. 2022-2023.

Epic Tech LLC v. Pen-Tech LLC, patent infringement, networked gaming systems/methods
Client: Fisher Broyles for defendant. Analyses: claim construction, validity, infringement. Testimony: declarations, deposition, hearing. Asserted patent found ineligible. 2021-2024.

Zenergy Systems, LLC v. Everi Payments, Inc., breach of contract, casino charitable donation systems
Client: Pisanelli Bice for defendant. Analyses: contracts, documentary evidence, prior art, source code. Testimony: deposition. 2021-ongoing.

Pre-litigation analysis, networked gaming technology
Client: counsel for potential defendant. Analyses: validity, infringement. 2021.

Big Run Studios v AviaGames, copyright infringement, mobile gaming systems
Client: Perkins Coie for defendant. Analyses: comparison of parties' products. Confidential settlement. 2022-2024.

Skillz Platform v AviaGames, patent infringement and IPR, networked gaming systems/methods
Client: Perkins Coie for defendant/IPR petitioner AviaGames. Analyses: claim construction, validity, infringement, source code. Testimony: declaration. Confidential settlement. 2021-2024.

Interactive Communications Int'l, Inc. v. Blackhawk Network, Inc., PGR, lottery system
Client: Cooley for patent owner. Analyses: claim construction, validity. Testimony: declaration, deposition. Challenged claims found unpatentable. 2021-2022.

Playtika Ltd. v. NEXRF Corp., IPRs, networked gaming systems/methods
Client: Finnegan, Henderson for petitioner. Analysis: validity. Testimony: declarations, deposition. Patent found ineligible, case terminated after appeals waived. 2021-2022.

MQ Gaming v. LEGO Systems, patent infringement and IPR, networked gaming systems/methods
Client: Finnegan, Henderson for plaintiff/patent owner MQ Gaming. Analyses: validity, infringement, source code. Confidential settlement. 2020-2021.

GREE v. Supercell Oy, patent infringement, networked gaming systems/methods (multiple matters)
Client: Fenwick & West for defendant. Analyses: claim construction, validity, infringement, source code. Testimony: declarations, depositions, jury trials. Jury verdicts for plaintiff, then confidential settlement. 2019-2021.

INAG, Inc. v. Richar, Inc., patent infringement, casino gaming equipment
Client: Fisher Broyles for defendant. Analyses: claim construction, validity, infringement. Testimony: deposition, trial. Jury verdict for defendant. 2020-2024.

Epic Tech LLC v. Fusion Skill, Inc. et al., patent infringement, electronic sweepstakes machines
Client: Dunlap Codding for defendant Texas Wiz. Analyses: validity, infringement, source code. Testimony: declarations, deposition. Asserted patents found ineligible. 2020-2022.

Universal Entm't Corp. v Aruze Gaming America, patent infringement, electronic gaming machines
Client: Klarquist Sparkman for defendant. Confidential settlement. 2020-2023.

Bot M8 LLC v. Sony Corporation of America, patent infringement, networked gaming system
Client: Kramer Levin Naftalis & Frankel for plaintiff. Analyses: validity, infringement, source code. Testimony: declarations, deposition. Asserted patent found ineligible. 2019-2020.

Savvy Dog Systems LLC v. Pennsylvania Coin LLC, patent infringement, pre-reveal gaming machines
Client: Morgan, Lewis & Bockius for defendant. Analyses: claim construction, validity, source code. Testimony: declaration, deposition. Asserted patent found ineligible. 2019-2022.

Tipping Point Gaming v. Caesars Entertainment, trade secret misappropriation, casino system
Client: Greenberg Traurig for defendant. Analyses: trade secret, prior art. Claims dismissed with prejudice. 2019.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

MGM National Harbor v. Markel Insurance, damage assessment, electronic gaming machines
Client: DeCaro Doran for defendant. Analyses: gaming machine evaluation after water damage, financial damages. Satisfactory settlement. 2019-2022.

Aristocrat v. Ainsworth, trade secret misappropriation, gaming machine technology
Client: Gilbert + Tobin for plaintiff. Analyses: forensic par sheet examination, mathematical analysis. Confidential settlement. 2019-2020.

Treehouse Avatar v. Valve Corp., patent infringement, networked gaming system
Client: plaintiff. Analyses: validity, infringement, source code. Testimony: deposition. Case dismissed. 2018-2021.

FigureFun LLC v. LEGO Systems, patent infringement and IPR, electronic gaming machines
Client: plaintiff/patent owner. Analyses: claim construction, validity. Testimony: declarations. Final written decision. 2018-2019.

Bookman v. Resorts World Casino, Genting New York and Int'l Game Technology (IGT), breach of contract & negligence, slot machine abnormality/withheld jackpot
Client: Alan Ripka for plaintiff. Analysis: forensic gaming machine investigation. Testimony: expert affidavit. Satisfactory settlement. 2018.

IPR, networked gaming system
Client: counsel for patent owner. Analysis: validity. Removed from case. 2017-2018.

Aristocrat Technologies v. High 5 Games, IPR, slot machine method
Client: Covington & Burling for petitioner. Analysis: validity. Testimony: declaration, deposition. All claims unpatentable. 2017-2019.

Video Gaming Technologies (VGT) v. Castle Hill Gaming, misappropriation of intellectual property, Class II gaming machines
Client: Covington & Burling for plaintiff. Analyses: Class II gaming machine functionality, trade secret, trade dress, source code. Testimony: declarations, deposition. Public settlement of $3M. 2017-2019.

Kentucky Horse Racing Commission, et al. v Family Trust Foundation of Kentucky, compliance investigation, electronic gaming machines
Client: Stoll Keenon Ogden for petitioner Keeneland Association. Analyses: behavior of historical horse racing (HHR) machines in view of regulations and state court opinions. 2015-2018.

Int'l Game Technology (IGT) v. Aristocrat Technologies, patent infringement, gaming machines
Client: Covington & Burling for defendant. Analysis: validity. Testimony: declarations. Confidential settlement. 2015-2016.

AmTote International v. Kentucky Downs, misappropriation of intellectual property, networked gaming system
Client: Gilbert's LLP for plaintiffs AmTote and PariMAX. Analysis: historical horse racing (HHR) machines, system architecture, pari-mutuel mathematics, trade secret. Confidential settlement. 2015-2018.

IGT v. AmTote International, patent infringement (pre-litigation), networked gaming system
Client: Gilbert's LLP for defendant. Analysis: validity. Litigation averted due to my analysis. 2015.

International Internet Technologies, LLC v. Sweepstakes Patent Company, LLC, CBM review, networked gaming system
Client: Schneider Rothman for patent owner. Analyses: validity, infringement. Testimony: deposition. Patent found invalid. 2015-2016.

Abnormality analysis, networked gaming machines
Client: counsel for defendant. Analyses: log file, source code. Confidential settlement. 2015-2016.

MEI-GSR Holdings, LLC d/b/a Grand Sierra Resort v. Peppermill Casinos, Inc., misappropriation of trade secrets, slot machine par settings
Client: Robison, Belaustegui, Sharp & Low for defendant. Analyses: trade secret, reverse engineering, damages. Testimony: jury trial. Jury verdict for defendant. 2014-2016.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

MGT Gaming v. Aruze, patent infringement, slot machine system
Client: Watson Rounds for defendant. Analyses: claim construction, validity. Testimony: declaration. Confidential settlement. 2014-2015.
SHFL Entertainment v. GTECH, patent infringement, online gaming system
Client: McCarter & English for defendant. Analysis: claim construction, validity. Confidential settlement. 2014.

Stephenson v. Worldwinner, IPR, networked tournament system
Client: Merchant & Gould for patent owner. Analyses: claim construction, validity. Testimony: declaration, deposition. Patent invalid for anticipation. 2013-2015.

Agincourt Gaming v. Zynga, patent infringement, network gaming system
Client: Quinn Emanuel Urquhart & Sullivan for defendant. Analysis: validity. Confidential settlement. 2013-2014.

eLot v. GTECH, patent infringement, networked lottery system
Client: Finnegan, Henderson, Farabow, Garrett & Dunner for defendant. Analysis: validity. Confidential settlement. 2013.

Big Daddy Games v. Reel Spin Studios, copyright infringement, gaming machines
Client: Michael Best for defendant. Analysis: graphical assets, source code. Testimony: declaration, deposition. Confidential settlement. 2012.

Seneca Nation of Indians v. State of New York, regulatory dispute, video lottery terminals
Client: Kanji & Katzen / Harter Secrest & Emery for plaintiff. Analyses: hardware functionality, network protocol, gameplay, regulatory. Testimony: sworn witness statement, hearing. Public settlement of over $600M dispute. 2012-2013.

Safe Gaming System Inc. v. Atlantic Lottery Corp., patent infringement, networked gaming system
Client: Borden Ladner Gervais for defendant. Analyses: claim construction, validity, infringement. Testimony: bench trial in Federal Court of Canada. Dismissal / judgment for defendant. 2012-2018.

eLot v. Atlantic Lottery Corporation, patent infringement, Internet lottery system
Client: Borden Ladner Gervais for defendant. Analyses: claim construction, validity. Favorable settlement shortly after my report was submitted. 2012-2014.

Fortunet v. Playbook Publishing, misappropriation of trade secrets, proprietary wagering methods
Client: Watson Rounds for plaintiff. Analysis: comparison of both parties' wagering methods. Testimony: jury trial. Jury verdict partly in favor of plaintiff. 2011-2013.

McKee v. Isle of Capri Casinos, breach of contract & consumer fraud, slot machine abnormality/withheld jackpot
Client: Donnelly Nelson Depolo Murray for plaintiff. Analysis: slot machine forensic report. My engagement was terminated when I disputed counsel's technical interpretations. Summary dismissal. 2011-2012.

Legal iGaming / Zynga v. Int'l Game Technology (IGT), patent interference, networked gaming system
Client: Morrison Foerster for senior party defendant. Analysis: claim construction, validity. 2011.

Gaming patent review (pre-litigation/confidential), networked gaming machine methods
Client: Counsel for potential plaintiff. Analyses: prior art research, validity, infringement. 2011.

Lottotron v. Allgames Casino, patent infringement, remote wagering system
Client: Stadheim Grear for plaintiff. Analyses: damages for defaulting defendants. Testimony: declaration, hearing. Plaintiff awarded damages over $14M. 2011.

WMS Gaming v. Bally Technologies, patent infringement, slot machine technologies
Client: Quinn Emanuel Urquhart & Sullivan for defendant. Analysis: validity. Confidential settlement. 2011.

Lottotron v. EH New Ventures, patent infringement of remote wagering system
Client: Stadheim Grear for plaintiff. Analyses: infringement. Testimony: declarations, deposition, jury trial. Jury verdict for defendant. 2010-2012.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

Compliance investigation, charitable bingo machines
Client: Thunderbird Casino, Costa Rica. Analyses: investigation of gameplay on electronic bingo machines, comparison to regulatory language. Written report submitted to national legislator. 2010-2011.

Compliance investigation, charitable bingo machines
Client: Alabama Attorney General. Analyses: investigation of of gameplay on multiple manufacturers' electronic bingo machines in view of Alabama Supreme Court ruling, pre-litigation technical support. Project terminated due to Governor's intervention. 2010.

State of California v. Wilkins, theft, casino loyalty club points
Client: Public Defender, Humboldt County, CA for defendant. Analyses: evaluation of casino accounting data, damages calculation. Case settled for the amount I calculated. 2009-2010.

Dottie Janousek v. Canyon Casino, breach of contract, slot machine abnormality/withheld jackpot
Client: Helmer McElyea for plaintiff. Analysis of slot machine forensic report. Based on my analysis, plaintiff received satisfactory settlement. 2009.

Golden Route v. Ardent Gaming, breach of contract, casino accounting system
Client: John Peter Lee for defendant. Analyses: contract language, software specification, system data. Confidential settlement. 2009.

Cranway v. Playtech (United Kingdom), patent infringement, online gaming system
Client: Herbert Smith for plaintiff. Analyses: infringement, validity. Testimony: declaration, bench trial in High Court in London. Patent found invalid. 2008-2009.

International Gamco v. Multimedia Games, patent infringement, video lottery system
Client: Luce, Forward, Hamilton & Scripps for defendant. Analyses: infringement, validity. Testimony: declarations, deposition. Summary judgment for defendant. 2006-2010.

Aristocrat Technologies v. Multimedia Games, patent infringement, video lottery machines
Client: Luce, Forward, Hamilton & Scripps for defendant. Analyses: infringement, validity. Testimony: declarations, deposition. Settled in favor of defendant shortly after my deposition was taken. 2006-2008.

HomeBingo v. Multimedia Games, patent infringement, electronic bingo system
Client: Fish & Richardson for defendant. Analyses: claim construction, infringement, validity. Testimony: declaration. Settled in defendant's favor after claim construction order. 2006-2007.

State of Mississippi v. (unknown defendant), felony cheating at gambling
Client: Mississippi Gaming Commission. Analysis: statistical evidence for cheating vs. probability of random outcomes. Indictment handed down by grand jury. 2005.

PUBLICATIONS AND MEDIA INTERVIEWS

April 2014	Web radio interview for Casino Enterprise Management podcast "Casino Talk with Brooke Dunn" regarding new casino game concepts.
January 2011	Video interview for CBS News show "60 Minutes" regarding video slot machine gameplay. Published on the CBS News website.
March 2010	Written article in Casino Journal: "Gaming's Greatest Hits: 6 Ideas that Changed the Industry"
March 2007	Radio interview for National Public Radio show "Justice Talking" regarding slot machine design and mathematics.

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

WORK AND BOARD EXPERIENCE

2001-present **OLYMPIAN GAMING, LLC**, Lake Oswego, OR
Gaming industry consulting, intellectual property consulting and game development
President

- Developed profitable consulting practice around casino gameplay development and analysis, including custom software simulation and analysis
- Designed slot game models and new game features for land-based and online gaming vendors. Client list includes WagerWorks (IGT), Electronic Arts, Double Down Interactive, Chartwell Technology, Parlay Entertainment, Diamond Game, Phantom EFX, and DEQ Systems.
- Designed and/or analyzed keno, bingo, lottery, blackjack, craps, roulette, poker, video poker, and many novel gaming propositions
- Social game design and virtual economy design for casual mobile or web games
- Advised clients in IP strategy, including patent clearance and potential design-arounds
- Provided expert witness testimony in many gaming-related lawsuits
- Developed IP portfolio including over 30 issued US patents and several trademarks
    - Executed IP licenses with several casino operators and gaming vendors
- Held licenses from Washington State Gambling Commission and Nisqually Tribal Gaming Commission; achieved regulatory game approvals in WA, NV, MS.

2014-2020 **CONGREGATION BETH ISRAEL**, Portland, OR
Board Treasurer, 2018-2020
Member, Board of Trustees, 2014-2018

2011-2013 **DOUBLE DOWN INTERACTIVE / INTERNATIONAL GAME TECHNOLOGY,** Seattle, WA
Social casino operator
Game Design Consultant / Gaming Strategist

- Redesigned and corrected casino game implementations for DDI's social casino game website
- Led casino-industry education efforts for non-casino casual games staff
- Designed all of DDI's casino gameplay prior to its $500M acquisition by IGT
- Product integration between DDI's social games platform and IGT's slot machine content
- Internal gaming expert for evaluating new product submissions and patent filings

2011-2014 **VIZKINECT,** Reno, NV
A visual data capture and analysis company
Member, Board of Advisors

- Advising early-stage technology company on strategic direction and application of biometric capture technology, including eye tracking and galvanic skin response, across several verticals

2006-2008 **NIKE,** Beaverton, OR
A leading athletic footwear and apparel brand
Senior Enterprise Architect

- Delivered service-oriented architecture (SOA) strategy and web service solutions
- Facilitated application and service architecture for key eCommerce initiatives
    - Resulted in over $1.4M in incremental revenue in first quarter after go-live
- Authored and delivered executive-education presentations on SOA and Web 2.0 collaboration

2003-2005 **SYSTEMS RESEARCH AND DEVELOPMENT** (acquired by IBM), Las Vegas, NV
A boutique software consultancy and developers of a fraud/collusion detection platform
Senior Software Engineer and Technical Consultant

- Developed high-throughput data analysis software for use in identifying casino cheating rings and international terrorist cells: prevented at least two domestic terrorist incursions
- Derived computational algorithms for uncovering connections in biographical data
    - Improved processing efficiency and throughput by 66%
- Directed technical team during onsite implementation of secure web services for DoD/U.S. Navy Horizontal Fusion initiative, and provided military-spec technical documentation.
    - Successful deployment resulted in $90M acquisition by IBM

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003

2002-2003 **PLUMTREE SOFTWARE** (acquired by BEA), San Francisco, CA
A pure-play portal software vendor
Senior Software Engineer
- Delivered web service-based portal application (portlet) SDK for both Java and MS .NET
    - Contributed to over $50M in portal software sales
- Delivered .NET custom controls and Visual Studio plug-ins for no-code portlet development
- Contributed to web standards committees and helped architect remote portlet infrastructure

2000-2001 **RAPT** (acquired by Microsoft), San Francisco, CA
A supply-planning and pricing optimization software vendor
Technical Implementation Engineer
- Managed client integration for software implementations at Sun Microsystems and H-P
    - Resulted in top-line uplift of $30M/quarter or roughly 2% revenue growth
- Developed custom SQL and PL/SQL database extraction/reporting software to deliver real-time intelligence to supply planning staff
    - Resulted in $15M/quarter cost reduction or roughly 2% profit growth

1998-2000 **SILICON GAMING** (acquired by IGT), Palo Alto, CA
A casino slot machine manufacturer
Game Model Engineer
- Self-education in probability theory and combinatorics led to successful employment as a casino gaming mathematician
- Designed game flow and storyboards for slot machines, and developed and shipped over 50 mathematical game models
    - Resulted in sales of hundreds of slot machines and over $10M in revenue
- Managed statistical verification and mathematical gameplay testing
- Liaison to state regulatory agencies; corrected prior errors in gaming lab submissions
    - Saved over $50,000 in regulatory fees

1996-1998 **ORACLE**, Redwood Shores, CA
A leading database and application software vendor
Software Engineer / Senior Software Engineer
- Responsible for final-tier maintenance engineering for premier Oracle clients
- Proposed and achieved consensus on enhancements to worldwide support process, and rolled out new process within my own organization.
    - Resulted in 50% decrease in defect reports and 10% increase in CSR response
- Earned promotion to Senior Engineer within 12 months
- Managed scalability and performance testing process, and designed scalability test suite
- Directed performance testing during pre-sales engagement with the Norwegian tax authority
    - Resulted in a 10-year, $3.5M license

EDUCATION

1992-1996 **HARVARD UNIVERSITY**, Cambridge, MA
Bachelor of Arts in Computer Science, *magna cum laude*
- John Harvard and Harvard College scholarship awards
- "Empirical Testing of Algorithms for Variable-Sized Label Placement" published in 1997 Journal of the Symposium on Computational Geometry

Light & Wonder v. Evolution
Light & Wonder Exhibit 1003