

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNDER ARMOUR, INC.,
Petitioner,

v.

ATHALONZ, LLC,
Patent Owner.

Case IPR2024-00637
Patent No. 11,013,291

**DECLARATION OF TIMOTHY MARKISON IN SUPPORT OF
PATENT OWNER'S RESPONSE**

TABLE OF CONTENTS

I.	SCOPE AND SUMMARY OF OPINIONS.....	7
II.	MATERIALS CONSIDERED	9
III.	QUALIFICATIONS AND PROFESSIONAL BACKGROUND	9
IV.	UNDERSTANDING OF LEGAL PRINCIPLES	15
	A. Obviousness.....	16
	B. Claim Construction.....	18
V.	LEVEL OF ORDINARY SKILL	19
VI.	TECHNICAL BACKGROUND	22
VII.	SUMMARY OF THE '291 PATENT	24
	A. Overview of the Patent	24
	B. Prosecution History	32
VIII.	CLAIM CONSTRUCTION	32
	A. “Athletic Positioning Shape”	33
	B. “Inside Edge / Outside Edge”	35
IX.	THE ASSERTED PRIOR ART	37
	A. Overview of the Prior Art.....	37
	B. Kim (EX1005).....	38
	C. Dufour (EX1006)	54
	D. Rubin (EX1007)	60
	E. Conventional Shoes	69

X.	MR. DELGATTY DOES NOT SHOW THAT ANY CHALLENGED CLAIM WOULD HAVE BEEN OBVIOUS	74
A.	General Discussion Regarding Nonobviousness	74
B.	Ground 1: Kim Does Not Disclose or Render Obvious Independent Claim 1.	76
1.	Kim Does Not Disclose a First, Second, or Third Height or a First, Second, or Third Slope as Claimed.....	77
2.	Mr. Delgatty Incorrectly Identifies a First, Second, and Third Height and Slope in Kim by Excluding the Cleats.	84
3.	All Dependent Claims are Patentable Over Kim.....	95
C.	Ground 2: The Combination of Dufour and Kim Does Not Render Independent Claim 1 Obvious.	95
1.	Dufour Does Not Disclose a First Height Greater Than a Second Height.....	98
2.	It Would Not Have Been Obvious to Combine Dufour with Kim in the Manner Suggested by Mr. Delgatty and the Combination Still Does Not Meet the Claims.	109
3.	All Dependent Claims are Patentable Over Dufour and Kim.....	115
D.	Ground 3: The Combination of Rubin and Kim Does Not Disclose or Render Obvious Claim 1.....	115
1.	Rubin Does Not Disclose a Second Height Greater than a Third Height.....	117
2.	Rubin Does Not Disclose a First Height Greater than a Second Height.....	124
3.	Rubin Does Not Disclose a First Slope, Second Slope, or Third Slope, as Required by Claim 1.....	130

4.	It Would Not Have Been Obvious to Combine Rubin with Kim in the Manner Suggested by Mr. Delgatty and the Combination Still Does Not Meet the Claims.	130
5.	All Dependent Claims are Patentable over Rubin in View of Kim.	138
E.	Grounds 1-3 All Fail to Render Claims 1-5 Obvious Under the Correct Construction of “Athletic Positioning.”	138
XI.	SECONDARY CONSIDERATIONS OF NON-OBVIOUSNESS	139
A.	Long-Felt, Unmet Need.....	139
B.	Skepticism by Others	140
C.	Industry Praise and Unexpected Results	141
D.	Copying	143
E.	Conclusion.....	146
XII.	SIGNATURE.....	146

EXHIBIT LIST

Exhibit	Description
2001	Docket Control Order (Dkt. 35) in <i>Athalonz LLC v. Under Armour, Inc.</i> , No. 2:23-cv-00193-JRG (E.D. Tex.)
2002	United States District Court Judicial Case Profiles, as of December 2023
2003	Under Armour's Invalidity Contentions in <i>Athalonz LLC v. Under Armour, Inc.</i> , No. 2:23-cv-00193-JRG (E.D. Tex.)
2004	Exhibit A ('291 Patent Invalidity Chart Based on Kim) to Under Armour's Invalidity Contentions in <i>Athalonz LLC v. Under Armour, Inc.</i> , No. 2:23-cv-00193-JRG (E.D. Tex.)
2005	Exhibit B ('291 Patent Invalidity Chart Based on Rubin) to Under Armour's Invalidity Contentions in <i>Athalonz LLC v. Under Armour, Inc.</i> , No. 2:23-cv-00193-JRG (E.D. Tex.)
2006	Exhibit C ('291 Patent Invalidity Chart Based on Dufour) to Under Armour's Invalidity Contentions in <i>Athalonz LLC v. Under Armour, Inc.</i> , No. 2:23-cv-00193-JRG (E.D. Tex.)
2007	Exhibit R ('291 Patent Obviousness Chart) to Under Armour's Invalidity Contentions in <i>Athalonz LLC v. Under Armour, Inc.</i> , No. 2:23-cv-00193-JRG (E.D. Tex.)
2008	Declaration of Mr. Timothy Markison in Support of Patent Owner's Response Regarding U.S. Patent No. 11,013,291
2009	CV of Mr. Timothy Markison
2010	Transcript of the 12/19/24 Deposition of Mr. Grant Delgatty in IPR2024-00636, IPR2024-00637, IPR2024-00638, IPR2024-00639, and IPR2024-00640
2011	Excerpts from Holt, Serway & Faughin, Physics (1st ed. 2002)

Athalonz Exhibit 2008

IPR2024-00637

Under Armour, Inc. v. Athalonz, LLC

Page 5 of 146

2012	Presentation Titled “Athletic Positioning Shoe: Presentation to Under Armour, August 22, 2013”
2013	Article Titled “Athalonz Golf Shoes: The Golf Shoe for Distance?” downloaded from https://thelefttrough.com/athalonz-golf-shoes-review/ on December 30, 2024
2014	Claim Charts for U.S. Patent No. 10,674,786; 11,013,291; and 11,064,760 for Athalonz Products
2015	Merriam Webster, “height”

I. SCOPE AND SUMMARY OF OPINIONS

1. I, Timothy Markison, am making this declaration in support of Athalonz, LLC's Patent Owner's Response in the matter of IPR2024-00637 before the Patent Trial and Appeal Board (PTAB) of the United States Patent and Trademark Office, which involves Under Armour, Inc.'s petition for *inter partes* review of U.S. Patent No. 11,013,291 ("the '291 patent").

2. I am the CEO of Patent Owner Athalonz, LLC ("Athalonz" or "Patent Owner"). I am also a registered and practicing patent attorney and a named inventor on the '291 patent. I am not being compensated for this declaration. Despite my connections to Athalonz and to the '291 patent, I am a patent attorney bound by the rules of professional conduct and the rules of the United States Patent and Trademark Office. Moreover, as explained in further detail below, I am qualified to offer opinions from the perspective of a person of ordinary skill in the art at the time of the invention and can render an objective opinion regarding the issues raised in this IPR.

3. I have been asked to analyze the Petition (Paper 1) and Mr. Delgatty's declaration (EX1002) in support thereof, as well as the '291 patent and its file history. I have been asked to provide my opinions about certain obviousness theories and opinions in Dr. Delgatty's declaration. I have also been asked to provide

opinions about how the person of ordinary skill in the art (“POSITA”) would have understood and interpreted the ’291 patent, including its claims; how a POSITA would have understood and interpreted the Petition’s alleged prior art references; and a POSITA’s knowledge of the state of the art as it relates to addressing these obviousness theories and opinions. My opinions and conclusions are set forth in this Declaration. I understand that this Declaration is being submitted in connection with Patent Owner’s Response to the Petition.

4. For purposes of this Declaration, I was asked to consider claims 1-5 of the ’291 patent, which I understand are the challenged claims. *See* EX1002, § IX. I understand that claim 1 is the single independent claim.

5. This Declaration and its exhibits, in addition to my education, training, and experience in technology fields pertinent to the ’291 patent, form the basis of my opinion.

6. I am not offering any conclusions as to the ultimate determinations that I understand the Patent Trial and Appeal Board (“Board”) will make in this proceeding. I am solely providing my opinions on the technical interpretations, characterizations, theories, and opinions that I understand are involved in this proceeding.

7. I may offer additional opinions based on my further review of the materials in this case, including opinions and/or testimony of other expert declarants.

II. MATERIALS CONSIDERED

8. In forming the opinions in this Declaration, I reviewed the Petition (Paper 1), Mr. Delgatty's declaration (EX1002), the prior art cited by Under Armour, the '291 patent, and the '291 patent's file history. I have also cited various other materials throughout my declaration that I considered as part of my analysis.

III. QUALIFICATIONS AND PROFESSIONAL BACKGROUND

9. My qualifications are stated more fully in my curriculum vitae, which is included as Patent Owner's EX2009. Below is a summary of my education, work experience, and other qualifications.

10. I earned a Bachelor of Science in Electrical Engineering (BSEE) in 1984 from Illinois Institute of Technology, which included two semesters of calculus-based physics, a semester of statics, and a semester in dynamics.

11. I became a member of the Patent Bar of the United States Patent and Trademark Office in 1989. My registration number is 33,534.

12. I earned a Juris Doctorate in 1993 from Loyola University Chicago School of Law.

13. I became a member of the Illinois state bar in 1993, and I have been licensed to practice law in Illinois since 1993. I have also been licensed to practice in the Federal District Courts of Illinois since 1993.

14. From 1981 to 1988, I worked as an engineer designing commercial grade switch mode power supplies, military-grade high voltage switch mode power supplies, and battery charges for battery backup systems.

15. From 1988 to 2000, I held various positions involving the practice of patent law. Please refer to my curriculum vitae for specific positions, companies, and time frames.

16. Presently, I hold three positions: (1) a co-founding partner of the patent boutique firm of Garlick & Markison (G&M), which was founded in 2000, (2) co-founder and CEO of Athalonz, LLC, which was founded in 2011, and (3) co-founder and CEO of Markison Patent Portal, Inc. (MPP), which was founded in January 2023.

17. Beginning no later than 2010, I began devoting substantial time and resources to developing innovative, disruptive new technologies intended to improve footwear options available to athletes. I partnered with Rick Adair, a former

professional baseball player and Major League Baseball pitching coach. Athalonz,¹ and all of its patents relating to athletic footwear, were the result of Mr. Adair's and my decision to combine our diverse talents—as a former MLB pitching coach Mr. Adair has vast experience regarding athletic movement and I am an experienced engineer, patent attorney, and inventor—to solve long-standing problems in the athletic footwear industry.

18. Mr. Adair had determined that when an athlete is positioned with “knees slightly bent, weight more on the inside of the legs than the outside of the legs, [and] knees position aligned with ankles and hips” they are in an optimal “athletic position” for many sports and athletic endeavors. EX1001, 9:15-21. However, despite the massive resources devoted to the design and improvement of athletic footwear, to my knowledge no athletic shoes succeeded in consistently placing an athlete's foot and body in an optimal athletic position at the time of the invention. Designing a shoe that consistently placed athletes' feet in an optimal athletic position—without promoting undesirable pronation or supination—thus became the core technical objective of Athalonz.

¹ When Athalonz was formed in 2011 by Rick Adair and me as co-founders, it was originally named AdMark Athletic Ventures. The name was changed to Athalonz in 2014.

19. From the formation of Athalonz in 2011 through most of 2015, I was the only employee of Athalonz responsible for developing Athalonz shoes. As such, I was primarily responsible for solving the technical problem of putting an athlete in a better athletic position without promoting pronation or supination. Based on my experience and background, I addressed the technical problem as a physics problem.

20. From a physics perspective, solving the technical problem involved manipulating forces through the shoes to put “an athlete in a better athletic position.” I further determined that the forces could be manipulated by creating multiple versions of a three-dimensional forefoot platform. The forces are the weight forces of the athlete applied to the shoe, the forces through the shoe to the earth, and the equal and opposite forces applied by the earth to the shoe. These forces occur in three-dimensional space.

21. To not promote pronation or supination, the heel section was designed to have the inner edge height and the outer edge height be the same. It was still further determined that a heel section could include a heel cup and maintain the objective of not promoting pronation or supination.

22. To assist with design and development of the shoe, Athalonz engaged independent contractors in 2014. In particular, the contractors assisted me with the design, development, and manufacture of Athalonz’ GF1 baseball spike and turf

shoe, which included the athletic positioning technology claimed in Athalonz's patents.

23. With the assistance of the independent contractors, I became intimately familiar with tech packs, material selection for the various components of an athletic shoe, upper pattern design, shoe manufacturing processes, midsole molds, outsole molds, and insole designs.

24. In 2016, Jeremiah Johnston joined Athalonz as Director of R&D and Product Development. From 2016 to the present, I have co-designed, co-developed, and co-managed manufacturing of each of Athalonz' new shoes with Mr. Johnston. Athalonz new shoes include GF2 turf shoes, GF2 molded cleats, EnVe golf shoe, and the Mana Mangrove golf shoe.

25. At Athalonz, Mr. Johnston and I have also designed several models of athletic shoes that are not yet commercially available.

26. As a patent agent and then as a patent attorney, I have worked with a vast number of inventors to prepare and prosecute thousands of patent applications on their behalf. This includes some of the most prolific inventors in the world. The patent applications cover a wide range of technologies, including athletic footwear and other athletic-related technologies. My curriculum vitae contains a complete list of technologies.

27. My patent preparation and prosecution experience has provided me a broad and deep technical knowledge base. It has provided me insight into how prolific inventors solve technical problems. They use an approach that includes: (1) question everything to identify the right problems to solve; (2) do not take anything for granted; (3) look inside and outside of the primary field of endeavor for solutions to the problems; and (4) keep in mind the totality of how the new technology will be used

28. I have used my broad technical knowledge and employed the inventing approach myself to solve a multitude of technical problems, including physics of footwear. As of late 2024, I am a named inventor on 453 issued patents and on 80 pending patent applications.

29. As described above, my professional experiences more than qualifies me as at least one of average skill in the field of athletic footwear, especially with respect to athletic performance enhancing footwear.

30. My professional oaths as a licensed attorney and as a registered patent attorney require me to act in good faith when opining on matters regarding patent law, patent preparation, and patent prosecution. As such, while I am not an “independent” expert, I can render, in good faith, opinions regarding the subject matter of this IPR.

IV. UNDERSTANDING OF LEGAL PRINCIPLES

31. At the outset, I want to clarify that all of my analysis and opinions in this declaration are from the perspective of a person of ordinary skill in the art at the time of invention. To the extent that portions of this declaration do not expressly include language indicating that the analysis is from the perspective of a person of ordinary skill in the art at the time of invention, it should be understood that my analysis and opinions are from the perspective of a person of ordinary skill in the art at the time of invention. For example, my opinion that a reference does not disclose or teach a claim limitation should be understood to mean that, in my opinion, a person of ordinary skill in the art at the time of invention would have interpreted the reference as not disclosing the limitation. Likewise, my opinions regarding obviousness are from the perspective of a person of ordinary skill in the art at the time of the invention.

32. Even though I am an attorney, I do not offer opinions of law. The opinions I am expressing in this Declaration involve the application of my knowledge and experience to the evaluation of the challenged patent and certain art with respect to the challenged. The following paragraphs express my understanding of legal principles related to my analysis.

A. Obviousness

33. I understand that a claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed subject matter and the prior art are such that the claimed subject matter as a whole would have been obvious to a person of ordinary skill in the art at the time of the invention. I also understand that an obviousness analysis is based on the scope and content of the prior art, the differences between the claimed subject matter and the prior art, the level of ordinary skill in the pertinent art at the time of the invention, and objective indicia of nonobviousness, such as commercial success, industry praise, unexpected results, copying, and other such factors.

34. It is my understanding that, to find a claimed invention obvious in light of a combination of prior-art references, a person of ordinary skill in the art at the time of the invention must have had reason to combine the teachings of the prior-art references to achieve the claimed invention, and that the person of ordinary skill must have had a reasonable expectation of succeeding in combining the teachings to arrive at the claimed invention. I further understand that a reason to combine or expectation of success is undermined if the combination or modification of the technology disclosed in the prior art would interfere with an objective of the technology disclosed in the prior art or if the prior art teaches away from making the

combination or modification. I understand that a prior art reference is said to teach away from the claimed invention if a person of ordinary skill in the art at the time of the invention, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken in the claim.

35. I understand that an assessment of what a reference discloses or teaches, for purposes of an obviousness analysis, must be conducted from the perspective of a person of ordinary skill in the art at the time of the invention. In other words, a reference discloses or teaches a claim limitation only if a person of ordinary skill in the art, at the time of the invention, would have interpreted the reference as disclosing the claim limitation. I understand that reliance on common sense, common wisdom, and common knowledge to inform an obviousness analysis must be explained with sufficient reasoning. I understand that assessment of obviousness from the perspective of someone skilled in the art before the invention was made, without the benefit of hindsight.

36. I understand that it is not permissible to use hindsight after viewing the claimed invention to determine the question of obviousness or to rely on the teachings of the claimed invention in determining whether a POSITA would find the invention obvious.

B. Claim Construction

37. I understand that claims and their terms are construed, that is, interpreted, in accordance with their ordinary and customary meaning as understood by a person of ordinary skill in the art at the time of the invention when read in the context of the patent's specification and prosecution history. I further understand that if the patent's specification reveals a special definition given to a claim term by the inventor, then the inventor's special definition governs, even if it differs from the term's ordinary meaning.

38. I understand that there are certain terms for construction that are at issue in this proceeding. I have discussed these terms and my understanding of them further below.

IV. PRIORITY DATE

39. Mr. Delgatty states that the time of the invention is March 8, 2011, which is the filing date of the provisional application to which the '291 patent claims priority. For the purposes of my opinions in this Declaration, I have been asked to assume the '291 patent is entitled to that priority date. Therefore, when I refer to a person of ordinary skill in the art at the time of the invention in my Declaration, I am referring to a person of ordinary skill in the art as of March 8, 2011.

V. LEVEL OF ORDINARY SKILL

40. Mr. Delgatty set forth a level of ordinary skill as follows:

Based on my education, experience, and knowledge of problems encountered in the field, the POSITA would have (1) at least a B.S. or equivalent degree related to industrial or product design and at least two years' experience designing or developing athletic shoes; or (2) at least five years designing or developing athletic shoes.

EX1002 ¶31.

41. I understand that the following factors may be considered in determining the appropriate level of skill in the art: (1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field. I understand that the person of ordinary skill in the art is not an actual individual, but instead is a construct for a hypothetical person who is presumed to be aware of all the pertinent prior art. I have addressed relevant information regarding these factors and applied this understanding below.

42. I am one of the named inventors on the '291 patent. My co-inventor was Rick Adair, who was an MLB pitching coach in 2011 when we filed the

provisional application that led to the '291 patent. My education level includes a BSEE degree and a JD degree. Mr. Adair does not have a college degree.

43. While I was technically not yet a POSITA as defined by Mr. Delgatty at the time the patent was filed, as discussed above, shortly before founding Athalonz in 2010, I began working extensively on designing and developing athletic shoes and have continued with that work at Athalonz through today. In particular, I designed the physical shoes that embody the concepts disclosed in Athalonz's patents and were later sold commercially by Athalonz beginning in 2015. I have continued to design and develop athletic shoes, including shoes embodying the Athalonz patents, up through the current day. Therefore, as of today, I exceed Mr. Delgatty's definition of a POSITA based on my thirteen years of experience designing, developing, and manufacturing athletic shoes at Athalonz.

44. I have relied on my knowledge and experience in the design, development, and manufacturing of athletic shoes gained over time, and based on that knowledge and experience, as well as my actual experience in solving the problems in this field at the time of the invention, I can readily understand and apply the skills and abilities of a POSITA on March 8, 2011.

45. Regarding the design of an athletic shoe, in my opinion, a POSITA would have the following relevant knowledge and information:

- A well-designed athletic shoe should be stylistic, since style is a primary factor influencing consumers' decisions to buy athletic shoes;
- A well-designed athletic shoe should be comfortable, since comfort is another primary factor influencing consumers' decisions to buy athletic shoes.

Comfortable designs aim to provide:

- A sole of the athletic shoe that has minimal pressure points; and
- A sole of the athletic shoe should that has adequate padding and/or is constructed of impact absorbing materials.
- That it is advantageous to keep the same basic design for midsoles and outsoles of athletic shoes due to:
 - Customer familiarity with fit and feel of existing athletic shoes;
 - Expense associated with creating molds for midsoles and outsoles; and
 - Desire to mitigate risk of injury of customers, and, thus, avoid deviating too far from previous designs that were successful in this regard.
- That a foot includes a heel, an arch, a ball of foot, and toes.

46. Both Mr. Delgatty and I agree that a POSITA is not a biomechanical engineer and is not well-versed in mechanical engineering or physics. Therefore, a POSITA looking at the problems that the challenged patent solved would not consider the application of physics principles to athletic shoe designs.

VI. TECHNICAL BACKGROUND

47. In order to fully understand the invention claimed in the '291 patent, a brief overview of the application of physics principles to the field of athletic shoes is necessary.

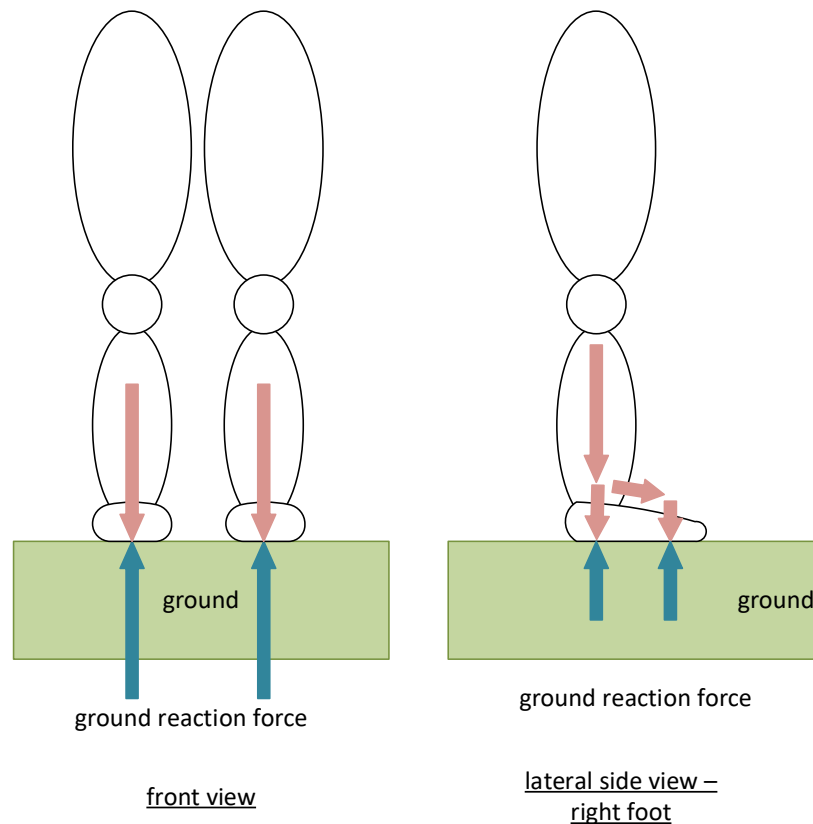
48. To begin, Newton's three laws of Motion state: (1) A body at rest will remain at rest, and a body in motion will continue moving at a constant velocity unless acted upon by an external force; (2) the acceleration of an object is directly proportional to the net force acting upon it and inversely proportional to its mass; and (3) for every action, there is an equal and opposite reaction. EX2011, 130-140.

49. The weight of an object is a measure of the magnitude of the gravitational force exerted on the object. *Id.*, 124.

50. Thus, the weight of an object results from the interaction of an object's mass with the gravitational field of another object, such as Earth. *Id.*, 124.

51. Force is a vector, meaning that its effect on an object depends on its magnitude and its direction, the direction occurring in three-dimensional space. *Id.*, 126.

52. To illustrate an example of a weight force of a person and an equal and opposite force produced by the ground (e.g., earth) (often referred to as ground reaction force) I produced the figures below:



53. In the front view, the legs are straight, and the weight is equally distributed between the left leg and the right leg. The red arrows represent weight forces, which are shown perpendicular to the ground. The blue arrows represent the ground reaction force, which are equal and opposite to their corresponding weight forces.

54. In the lateral side view of the right leg, the weight forces (red arrows) are distributed through the foot. In this illustration, the weight forces are about equally distributed between the heel and the forefoot. Again, the blue arrows

represent the ground reaction force, which are equal and opposite to their corresponding weight forces.

55. In certain places where relevant to my analysis below, I have applied these physics principles.

VII. SUMMARY OF THE '291 PATENT

A. Overview of the Patent

56. The '291 patent is focused on placing an athlete in a better position to improve athletic performance. The '291 patent recognizes that prior art baseball cleats, for example, did not achieve this goal because they only used two dimensions to place an athlete's foot in the best position. *See* EX1001, 1:44-67.

57. The '291 patent discloses that a better athletic position occurs for an athlete when the knees are slightly bent, the weight (of the athlete) is more on the inside of the legs than the outside of the legs, the knees are aligned with the ankles and hips, the athlete's feet are about shoulder width apart, and/or the heel is higher than the toes. *Id.*, 9:16-21, 28:28-31.

58. As such, the '291 patent is addressing the problem of designing a shoe that puts an athlete into a better athletic position. The design challenges included:

- Manipulating foot position so that the knees angle slightly inward;

- Further manipulating foot position to support the athlete with bent knees in an athletic position;
- Further manipulating foot position so that, when in an athletic position, more weight forces are at the inner forefoot than at the outer forefoot and more weight forces are at the inner forefoot than at the inner heel;
- For normal foot and ankle structure, avoiding promoting pronation or supination; and
- Building better athletic positioning into the sole of the athletic shoe itself so that it provides the athletic positioning regardless of ground conditions.

59. The '291 patent describes an athletic positioning footwear consisting of a shoe with an upper section, an insole section, and a sole section with an athletic positioning shape, which is formed by a heel section, a mid-foot section, and a toe section. *Id.*, 8:67-9:1. The athletic positioning described by the '291 patent has the heel section higher than the inside edge of a toe section at a first angle, the heel section higher than the outer edge of a toe section at a third angle, and the outside edge of a toe section higher than the inside edge of the toe section at a second angle. *Id.*, 10:52-59.

60. Figure 20 is one of the many illustrations of athletic positioning in an insole and/or sole of a shoe. *Id.*, 13:54-61.

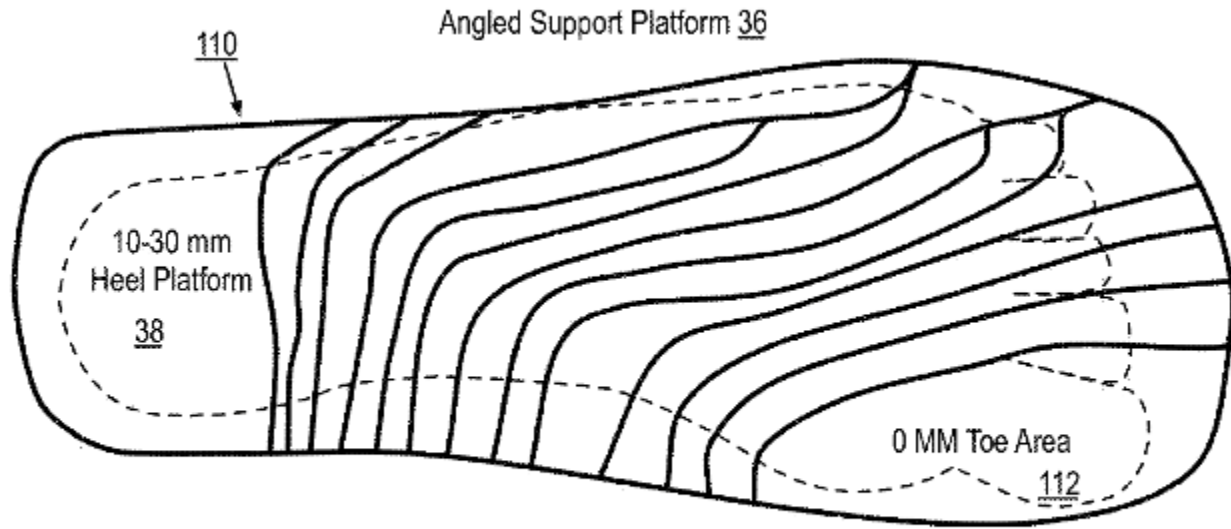


FIG. 20

61. Each of these embodiments shows a shoe with a heel platform at a height greater than the small toe area and the small toe area at a height greater than the big toe area. As such, the heel section is higher than the inside edge of a toe section at a first angle (represented by elevations lines in Figure 20 above), the heel section is higher than the outer edge of a toe section at a third angle (also represented by elevation lines), and the outside edge of the toe section higher than the inside edge of the toe section at a second angle (also represented by elevation lines).

62. The angles of an athletic positioning insole and/or sole correspond to slopes. For instance, a first slope corresponds to the first angle of the inside edge from the heel section to the toe section, a second slope corresponds to the second angle of the outside edge of the toe section to the inside edge of the toe section, and

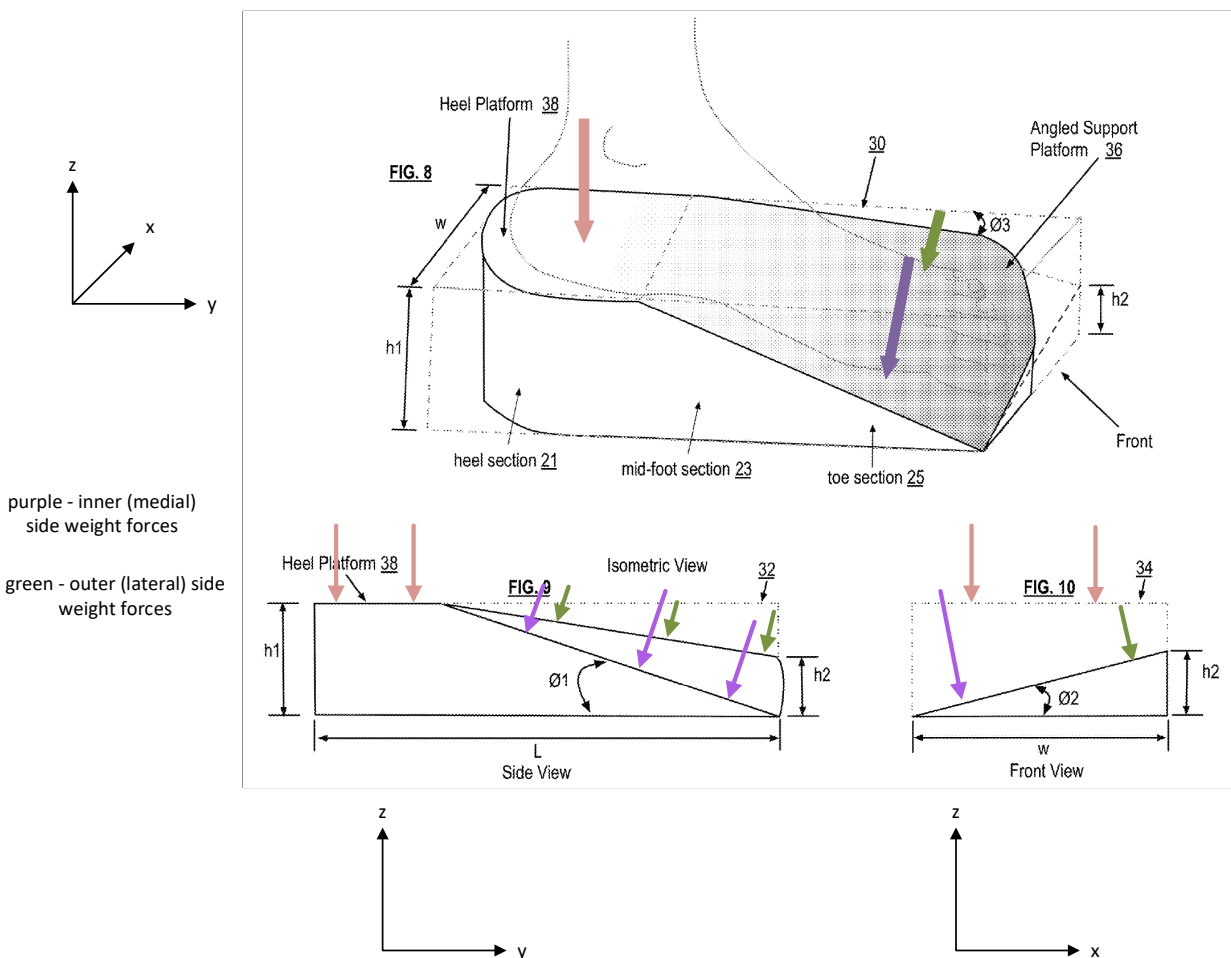
a third slope corresponds to the third angle of the outside edge from the heel section to the toe section. *Id.*, 10:4-16.

63. The heel section of the disclosed invention has a uniform height from its outside edge to its inside edge. *Id.*, 42:61-63, 43:38-41. This uniform height establishes another slope, the “reference slope.” *Id.*, 42:62-64, 43:41-43. The reference slope is the slope at the uniform height of the heel platform section. *Id.*, 42:61-65, 43:38-45. The reference slope is parallel to the bottom surface of the apparatus or shoe. *Id.*, 42:64-65, 43:43-45. The first, second, and third slopes are required to be greater than the reference slope—meaning they must have non-zero slopes relative to the bottom surface of the apparatus or sole. *Id.*, 43:9-11, 44:12-14.

64. The '291 patent also discloses, with respect to Figures 8-10 (EX1001, Figure 8-10, as annotated below), an athletic positioning shape of an insole 12 and/or sole 10 of a shoe. The athletic positioning shape includes a heel platform 38 and an angled support platform 36, which corresponds to the mid-foot section 23 and the toe section 25. *Id.*, 10:39-11:3. The heel platform and the angled support platform meet at an abutment edge. *Id.*, 10:45-48.

65. The heel platform 38 has uniform height h_1 . The angled platform 36 includes three angles and it includes three heights. The first angle (Φ_1) angles upward on the inside edge of the angled platform 36; the second angle (Φ_2) angles

upward in toe section of the angled platform 36 from the inside edge to the outside edge, and the third angle ($\Phi 3$) angles upward on the outside edge of the angled platform 36. The first height ($h1$) of the angle platform 36 corresponds to the height of the heel platform 38; the second height ($h2$) is at the front outer edge of the angled platform; and the third height (not labeled in Figures) is at the front inner edge of the angled platform 36. The angles are dimensioned such that the first height is greater than the second height which is greater than the third height. *Id.* (excerpts from 10:39-11:3).



Id., Figures 8-10, with annotation.

66. The annotations of Figure 8 illustrate the heel weight force (red arrow), the inner forefoot weight force (purple arrow), and the outer forefoot weight force (green arrow). The '291 patent mentions directional force and weight numerous times. For example, one or both terms are mentioned with reference to Figures 3, 4, 95, 97, 99, 101, 102, 106, 107, 109, and 111 – 115.

67. The annotations of Figures 9 and 10 illustrate that the weight forces are distributed about the athletic positioning shape. The heel weight force is distributed in the heel platform as shown by the smaller red arrows. Each of the heel weight forces are perpendicular to the ground.

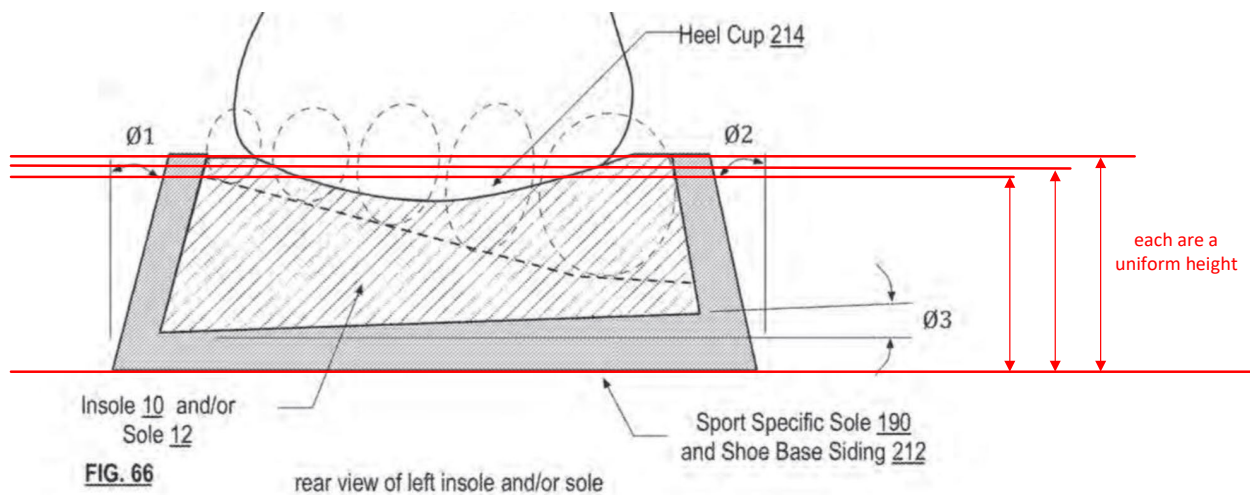
68. The inner forefoot weight force is distributed along the inner portion of the angled platform as shown by the smaller purple arrows. Each inner forefoot weight force has an x-component, a y-component, and z-component.

69. The outer forefoot weight force is distributed along the outer portion of the angled platform as shown by the smaller green arrows. Each outer forefoot weight has an x-component, a y-component, and z-component.

70. With the heel platform 36 having a uniform height (h_1), the athletic positioning shape does not promote pronation or supination. Another example of a

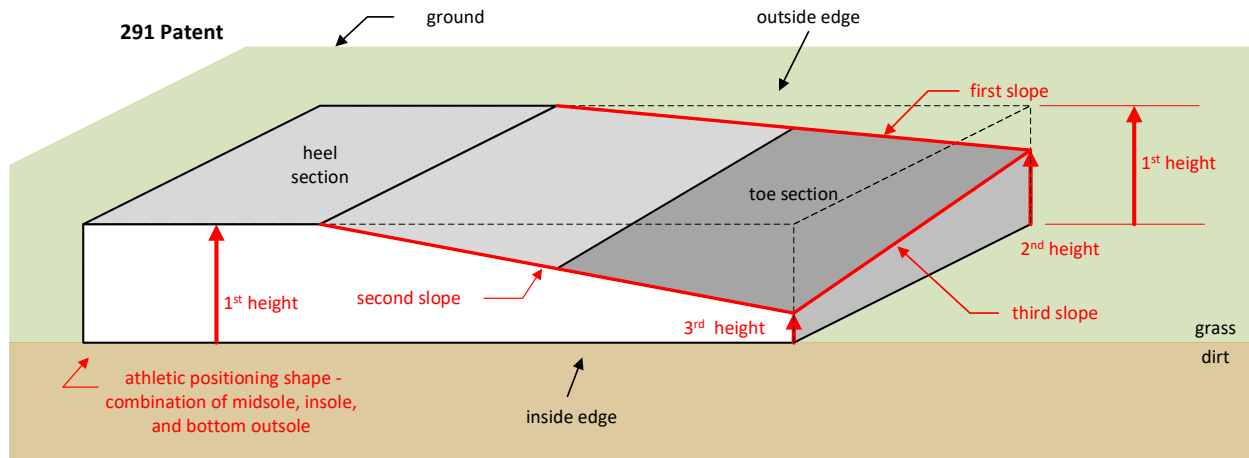
heel platform that does not promote pronation or supination is shown in Figure 66 of the '291 patent, below.

71. Figure 66 is a cross-section heel view of an athletic positioning sole 10 and/or insole 12 and a sport specific bottom 190. The athletic positioning sole 10 and/or insole 12 may have one of the athletic positioning shapes. *Id.*, 21:35-40. The heel section includes a heel cup 214. *Id.*, 21:64-65. As shown, the heel of a foot sits in the heel cup and, as such, the heel of the foot is parallel to the ground. Thus, the inclusion of a heel cup maintains the objective of not promoting pronation or supination.



Id., Figure 66, annotated.

72. Based on the teachings of the '291 patent, the background information, and the claims, the following figures illustrate a sole and/or apparatus with an athletic positioning shape as disclosed in claim 1.²



² All of my drawings in this declaration are in block diagram form for ease of illustration. This is consistent with the figures of the '291 patent, which mentions numerous times that the figures are in block diagram form for each of illustration and that one or more of the block diagrams of an insole, midsole, and/or outsole would have an overall geometric shape that corresponds to the shape of a shoe. EX1001, 9:60-64; 10:48-50; 11:29-32; 11:51-53; 12:8-11; 12:37-39; 18:5-7; 18:39-43; Figures 8-10, 19-23, and 59-62.

B. Prosecution History

73. The primary references relied upon by the Examiner during prosecution were Talarico II (US 4,620,376) and Darby (US 2,616,190).

74. The three references relied upon by Under Armour in the present IPR, include Kim (EX1005); Dufour (EX1006); and Rubin (EX1007).

75. As discussed below in greater detail, the prior art asserted by Under Armour is very similar to the art relied upon by the Examiner. Alone, or in combination, the prior art asserted by Under Armour and the prior art relied upon by the Examiner do not disclose the arrangement of heights and slopes claimed by the '291 patent.

VIII. CLAIM CONSTRUCTION

76. In my opinion, a person of ordinary skill in the art would have interpreted the following claim terms, when read in the context of the '291 patent's specification and prosecution history, to have the following meanings:

Term	Meaning to a POSITA
“athletic positioning shape”	“a heel section higher than the toe section and the outside edge of the toe section higher than the inside edge of the toe section”
“inside edge” / “outside edge”	“the edges of the portion of the shoe where the foot sits”

A. “Athletic Positioning Shape”

77. The term “athletic positioning shape” would be understood by a POSITA to be a sole shape that provides an “athletic positioning,” which requires in this context that the heel section is higher than the toe section and the outside edge of the toe section higher than the inside edge of the toe section.

78. The '291 patent discloses, with reference to numerous figures and corresponding text, the meaning of a sole section to be a “sole” has three sections: heel, mid-foot, and toe (as shown in Figure 5) and a “sole” includes an insole, a midsole, and/or an outer sole. EX1001, 27:49-51, 30:24-31. In many embodiments of an athletic positioning sole, the mid-foot section and the toe section form an angled support platform (e.g., as shown in Figure 8). Figures 8 – 10, 11, 12, and others illustrate embodiments of an athletic positioning shape, which may be used in a sole and/or insole. *Id.*, 10:39-43, 11:4-6, 11:23-25.

79. The concept of “athletic position” in the specification generally describes a resulting position having the “heel higher than toes, knees bent, more weight on big toe and/or ball-foot, more weight on inside of leg versus outside of leg,” “knee position is aligned with ankles, and hips, and/or other athletic positioning characteristics.” *Id.* 9:12-14, 28:13-15.

80. In the context of the patent, the athletic positioning shape has the heel section 21 higher than the toe section by a particular angle (e.g., Ø1, which may range from a fraction of a degree to 10's of degrees) and the outside edge of the shoe higher than the inside edge of the shoe by another angle (e.g., Ø2, which may range from a fraction of a degree to 10's of degrees) at the ball of foot and/or toe section of the shoe. *Id.*, 9:7-14.

81. In Mr. Delgatty's declaration, he states that, "For all other claim terms not specifically construed, I applied the plain and ordinary meaning of the terms in the '291 patent and prior art". EX1002 ¶27.

82. Mr. Delgatty does not provide any claim terms for construction in his declaration on the '291 patent, including the term "athletic positioning shape."

83. While each of the words "athletic", "positioning", and "shape" may individually be interpreted by their plain and ordinary meaning, when combined, as in the claims of the '291 patent, the combined words form a claim term that was not common in the industry in March of 2011 or earlier. As such, the claim term does not have an ordinary meaning as alleged by Mr. Delgatty and it needs to be construed in light of the teachings of the specification.

84. From the teachings of the '291 patent, including the specification and the claims, it should be readily apparent to a POSITA that an "athletic positioning

shape” means a shape that is part of the sole (e.g., midsole and/or outsole) that at least includes the heel section is higher than the toe section and the outside edge of the toe section is higher than the inside edge of the toe section.

B. “Inside Edge / Outside Edge”

85. As explained below, a POSITA would understand the terms inside edge and outside edge, within the context of the ’291 patent’s specification and claims, to refer to the positions within the shoe where a foot interacts with it.

86. The ’291 patent discusses and illustrates the “inside” and “outside edge” (alternatively it uses “inner” and “outer” interchangeably) several times throughout the specification. The ’291 patent discloses that, when a person wears such a shoe, the athletic positioning shape of the insole and/or sole, places the person in an athletic position. EX1001, 9:16-18. As such, the athletic positioning shape of the sole affects the foot of a wearer to create the desired athletic positioning when the shoe is worn.

87. The ’291 patent includes numerous figures that illustrate a foot interacting with a sole assembly having an athletic positioning shape. For example, Figures 3-5, 8, 11, 12, 16-18, 19-23, 56-58, 59, 62-66, 69-71, 87, 89, 93-97, 99-103, 106-109, and 112-115.

FIG. 101

89. With respect to athletic positioning of the athlete wearing the shoe, what happens outside of the inside edge and of the outside edge has negligible effect. As such, a POSITA would know, based on the disclosure of the '291 patent, that to affect athletic positioning via a sole assembly, the inside edge and outside edge have to be related to how the foot engages the sole assembly as shown above with reference to Figure 101.

90. As stated above, Mr. Delgatty used the ordinary meaning for all claim terms for the '291 patent and did not specifically mention the “inside” or “outside” edge.

91. While not specifically construing the terms “inside edge” and “outside edge” as used in the claims, Mr. Delgatty’s apparent use of inside and outside with respect to the heel and toe sections in his analysis supports my claim construction of “inside edge” and “outside edge” being where the foot interacts with a shoe and not the inner-most or outer-most parts of the shoe.

IX. THE ASSERTED PRIOR ART

A. Overview of the Prior Art

92. Each of the three prior art references (Kim, Dufour, and Rubin) are addressing the issue of placing a golfer in a better stance to help with the golfer’s swing. Each reference incorporates some form of an inner to outer “wedge” to assist the golfer’s stance and swing. The concept of a “wedge” being associated with a golf shoe was introduced at least as early as the 1950’s.

93. In particular, Rubin referenced U.S. Patent 2,847,769, which Rubin characterized as disclosing a shoe to be worn by a golfer to aid the golfer in assuming a correct stance for his swing. The sole of the shoe illustrated in U.S. Patent 2,847,769 slopes upwardly rearwardly and downwardly inwardly so as to enable the

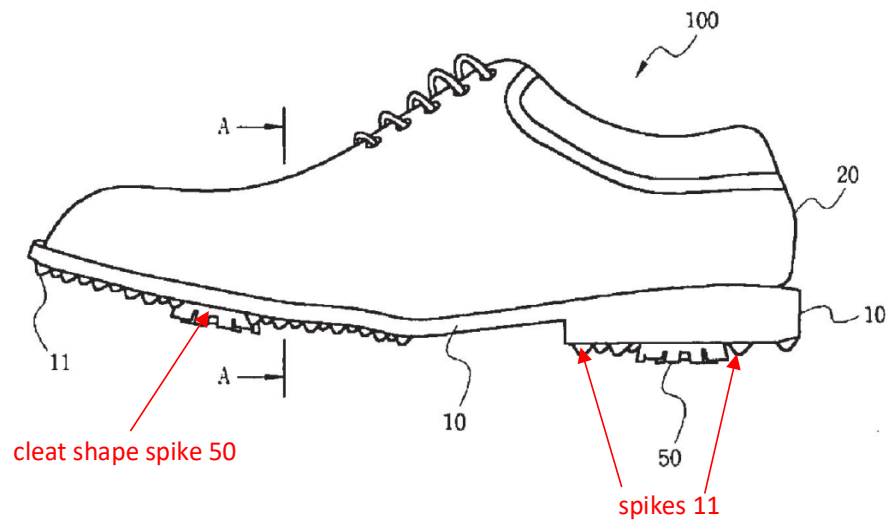
golfer when he takes his stance to have a proper weight distribution when making contact with the ball. Yet, the shoe would be awkward for normal walking and would place a strain on the foot of the golfer. EX1007, 1:54-67. The 2,857,769 Patent was filed on March 8, 1956.

B. Kim (EX1005)

94. Kim is directed to a pair of golf shoes. EX1005. The shoes disclosed in Kim are designed to “assist a golfer in concentrating his/her proper weight balance on the inner edge of soles of feet during the address and swing motions” and to “allow a golfer to stably maintain the lower part of his/her body on the surface of a green during the address and swing motions.” *Id.*, [0012]-[0013].

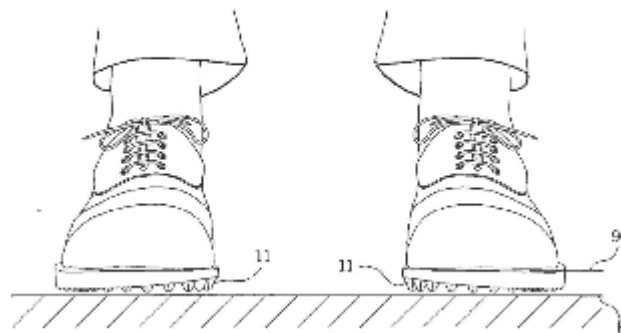
95. Figure 1 illustrates a golf shoe 100 that includes spikes 11 and cleat shape spikes 50 in the forefoot of the shoe and in the heel section of the shoe. The spikes 11 and 50 are coupled to the outsole 10. *Id.*, excerpts from [0030].

FIG. 1



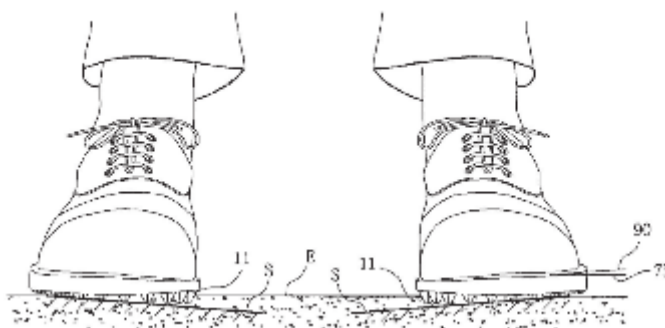
96. Kim's disclosure discusses two arrangements of the shoe, a hard surface arrangement and a soft ground arrangement. On hard ground, the spikes 11 and 50 of Kim's shoe do not penetrate the ground and the foot remains parallel to the ground (i.e., to the bottom of the spikes) as shown in Figure 5a:

FIG. 5a



97. On soft ground, the spikes penetrate the ground and the entire foot tilts inward as shown in Figure 5b.

FIG. 5b



98. As described further below, Kim discloses that spikes 11 and 50 extending from the outer inner edge of the outsole are longer than the spikes extending from the inner edge of the outsole as shown in Figures 2 and 3a.

FIG. 2

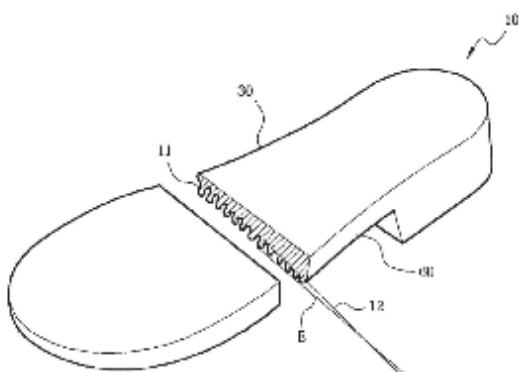
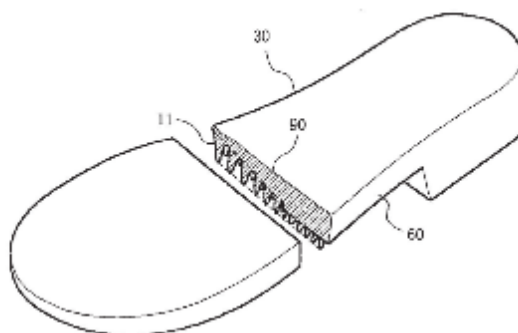


FIG. 3a



99. Figures 2 and 3b, shown below with annotations, illustrate that the outsole 10 includes a lower surface 12 that is inclined from its outer edge 60 to its inner edge 30 so that the outer edge 60 has a thickness larger than that of the inner edge 30. *Id.*, excerpts from [0027]. In Figure 3b, the incline is in the section

identified by label 40. *Id.*, excerpts from [0041]. As such, the outsole 10 includes an inner to outer “wedge” that runs the length of the shoe (heel to toe).

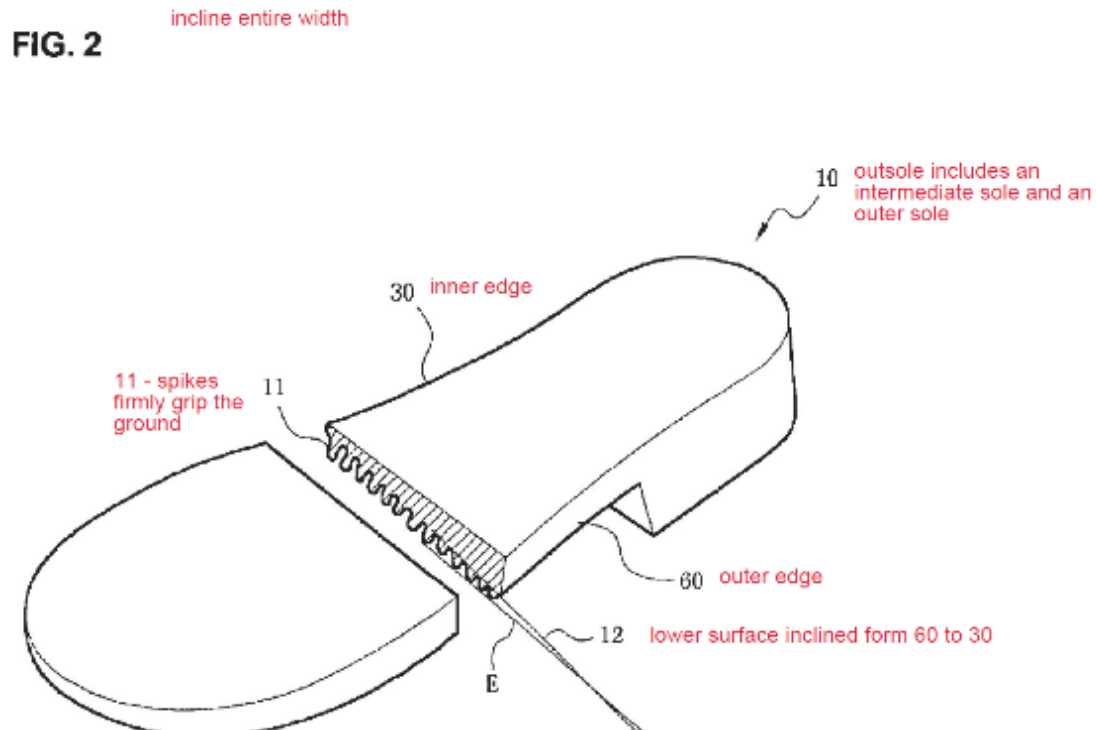
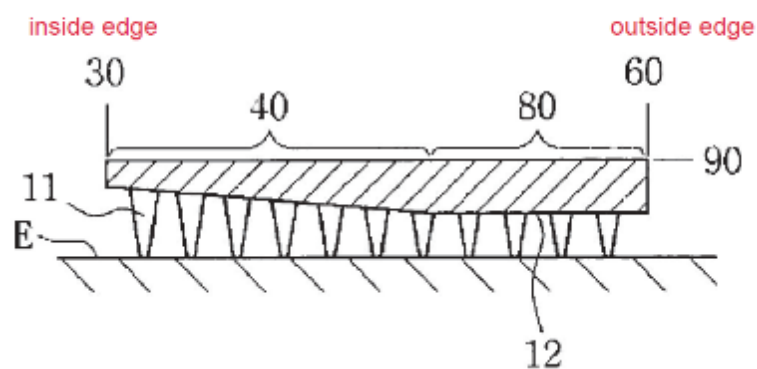


FIG. 3b

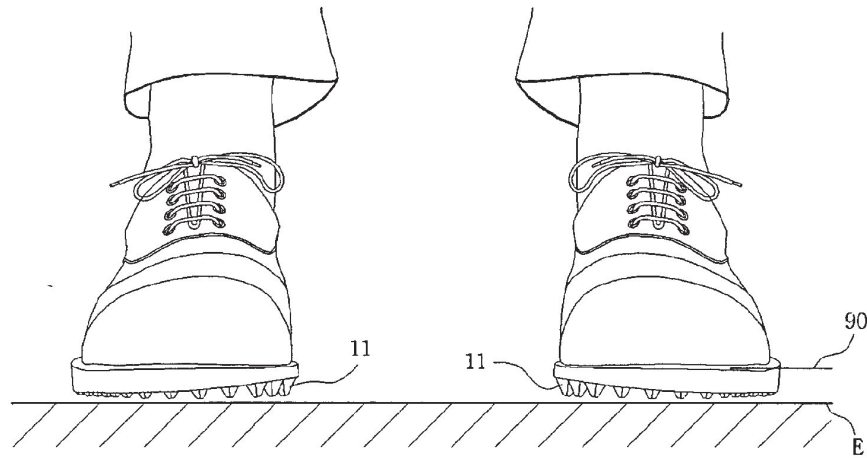


EX1005, Figures 2 and 3b with annotations.

100. To offset the effects of the “wedge” of the outsole 10 on hard ground, Kim teaches that the spikes 11 and 50 have varying heights that are inversely proportional to the variation in the thickness of the outsole 10. Kim describes the change in thickness of the sole from the outer edge to the inner edge of the shoe thus: “the lower surface 12 of the outsole 10 is inclined from the outer edge 60 to the inner edge 30. That is, the outsole 10 at the outer edge 60 has a thickness larger than that of the outsole 10 at the inner edge 30.” *Id.*, [0032]. Kim also explains “the variation in the height of the spikes 11 and 50 protruded from the lower surface 12 of the outsole 10,” which are “inversely proportional to the variation in the thickness of the outsole 10. That is, the height of the spikes 11 and 50 at the outer edge 60 of the outsole 10 with the larger thickness is smaller than the height of the spikes 11 and 50 at the inner edge 30 of the outsole 10 with the smaller thickness.” *Id.*, [0033].

101. As such, when the wearer of shoes 100 is on hard ground as shown in Figure 5a, as shown below, the spikes at the bottom of the shoe are parallel to the ground:

FIG. 5a



Kim thus explains that, in “reference to figure 5a, when the golfer in a pair of the golf shoes 100 of the present invention walks on the hard ground such as a paved road,” “the bottoms of the spikes 11 are substantially parallel with the ground E.” *Id.*, [0038]. This permits the golfer to “stably walk on the hard ground” just as they would in conventional golf shoes. *Id.*

102. Kim only discloses a variation in the height of the spikes running from side to side on the bottom of the shoe. Kim does not contain any disclosure that teaches, or even suggests, that the height of the spikes on the bottom of the shoe varies along only the length of the shoe. In other words, along any line that is parallel to the midline of the shoe, all the spikes along that line are the same height. This enables the top of Kim’s outsole to be parallel to the ground on hard surfaces.

103. Kim demonstrates that the upper surface of the outsole is parallel to the bottom of the spikes of the shoe. In particular, in paragraph 14, Kim explains that its invention provides golf shoes with a plurality of spikes protruding from the bottom of the shoes, wherein the “bottoms of the spikes (*an upper surface of the outsole*) are substantially parallel with the ground.” *Id.*, [0014] (emphasis added). Similarly, paragraph 42 describes how in Figures 4a to 4c, “line 90 represent[s] the level of the golfer’s foot and the bottoms of the spikes 11 [being] substantially parallel with ground E.” *Id.*, [0042]. Likewise, paragraph 39 describes how numeral 90 of Figure 5a “represent[s] the level of the golfer’s feet being parallel with the ground E.” *Id.*, [0039]. These passages of Kim demonstrate that both the upper surface of the outsole and the bottom of the spikes are parallel to each other, and also parallel to the ground. This parallelism of the upper surface of the outsole to the ground on hard surfaces is enabled by the inverse proportionality between spike height and sole height.

104. Kim contains many other passages that reiterate that the bottoms of the spikes are parallel to the ground. From these, in light of the disclosures in the preceding paragraph, it is understood that the upper surface of the outsole is also parallel to the ground. For instance, paragraph 15 explains that “the bottoms of the spikes are substantially parallel with the ground.” *Id.*, [0015]. In relation to Figures 3b and 4a-4c, paragraph 33 explains that “the bottoms of the spikes 11 an[d] 50 are

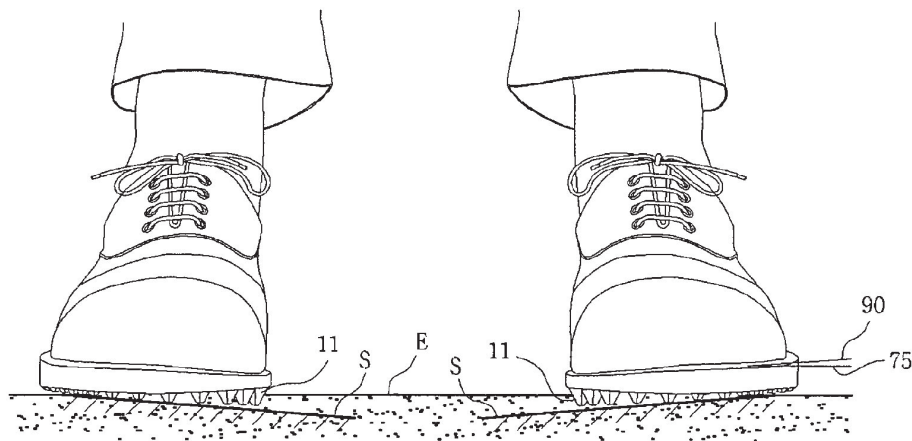
substantially parallel with the ground E.” *Id.*, [0033]. In relation to Figure 5a, paragraph 38 explains that “present invention walks on the hard ground such as a paved road, since the bottoms of the spikes 11 are substantially parallel with the ground E, the golfer in the golf shoes 100 of the present invention can stably walk on the hard ground.” *Id.*, [0038].

105. Thus, on hard ground, the foot on the upper surface of Kim’s outsole remains substantially parallel to the ground and parallel to the bottom of the spikes.

106. Kim accomplishes the flat surface of the upper outsole by disclosing a shoe that includes an outsole 10 with an inner to outer “wedge” and spikes 11 and 50 of varying lengths inversely proportional to the varying thickness of the outsole 10. With this configuration, the shoe 100 has the foot support surface of the shoe parallel to the bottom of the spikes.

107. When the shoe is worn on a green, the spikes penetrate the ground as shown in Figure 5b, as shown below. *Id.*, excerpts from [0036].

FIG. 5b



108. The outsole design in Kim permits the entire foot, including the heel, to tilt inward when the spikes are pressed into soft ground, such as when “standing on a green.” *Id.*, [0024]. This stance shifts the weight balance onto the entire inner edge of the sole of the feet of the wearer. *Id.*, [0035] (during address, “the balance of weight of the golfer’s body is concentrated on the inner edges of the soles of feet”); *see also id.* [0034].

FIG. 5a

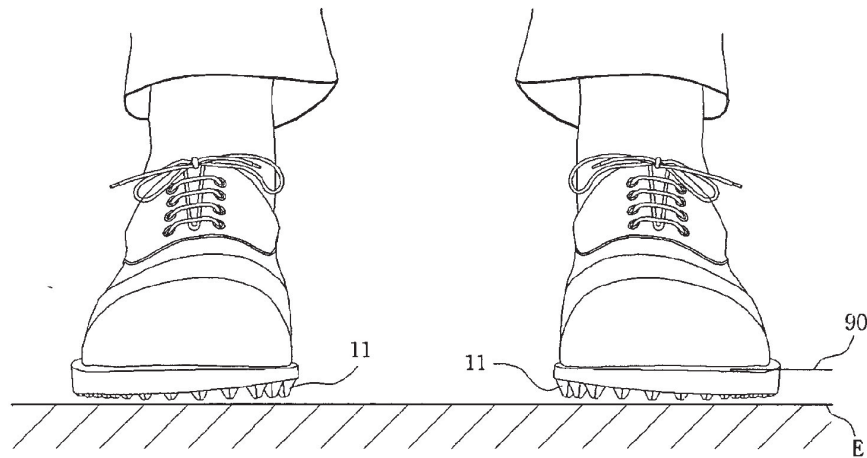
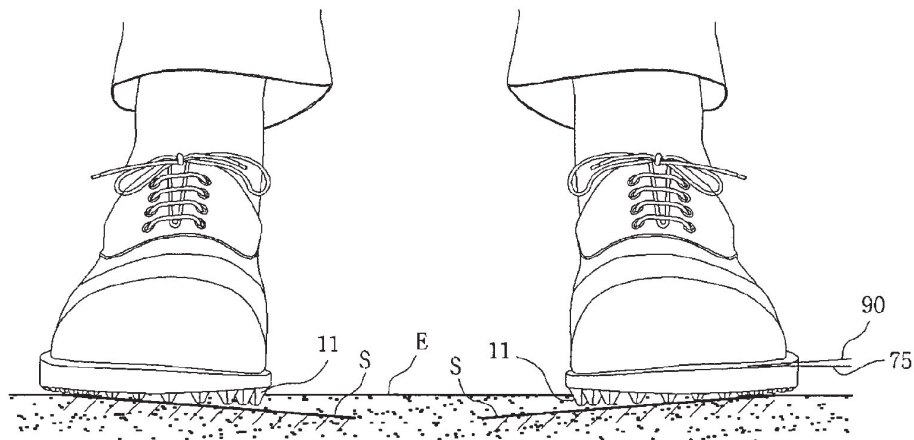
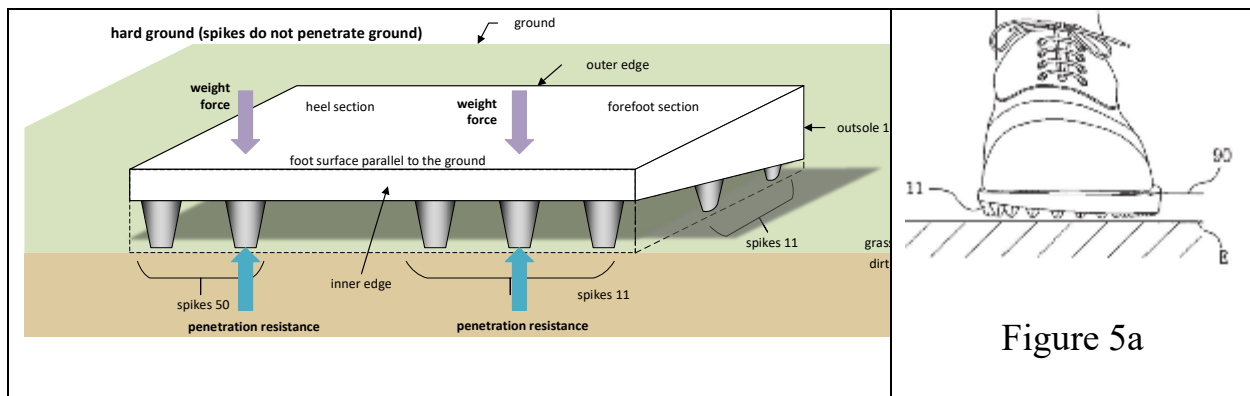


FIG. 5b



109. To help understand the effect different surfaces have on Kim's foot platform, I have created two figures which represent Kim's spikes, outsole, and upper surface of the foot platform on two different surfaces: a hard surface and the soft ground.

110. I created the following figure below on the left, which is shown next to a shoe from Kim's Figure 5a on the right. This figure shows that the spikes 11 and 50 do not penetrate the ground when the penetration resistance of the ground is greater than the weight force pushing on the upper surface of the outsole 10 on which the foot sits. The penetration resistance is a function of the firmness of the ground at the areas interacting with the spikes 11 and 50. Kim discloses the spikes not penetrating the ground on surfaces such as a "paved road," *id.* [0038], but, for instance, the spikes may also not penetrate the ground, or may penetrate less, when the ground is firmer, e.g., because the ground is excessively dry.



111. These figures also show the entire upper surface of the outsole is parallel to the bottom of the spikes, which makes it parallel to the ground as disclosed by Kim. EX1005, Abstract, ¶14, ¶15, ¶33, ¶38, ¶39, ¶42, ¶45, claim 1. In particular, Kim discloses that the upper surface of the outsole is substantially parallel to the ground. *Id.*, ¶14. The upper surface of the outsole supports the foot—the whole foot,

not just part of it. Thus, Kim discloses the heel section is at the same height with respect to bottom of the spikes as the forefoot section, which includes a mid-foot section and a toe section.

112. When the weight force of the spikes exceeds the penetration resistance, the spikes 11 and 50 penetrate the ground. The depth to which the spikes penetrate the ground depends on the length of the spikes, the weight force, and the penetration resistance as the spikes penetrate the ground. The “sharper” the spikes, the smaller the area of interaction, which decreases the penetration resistance. When enough weight force is applied, the spikes fully penetrate the ground, which is depicted below in the figure I created on the left. Figure 5b of Kim is on the right.

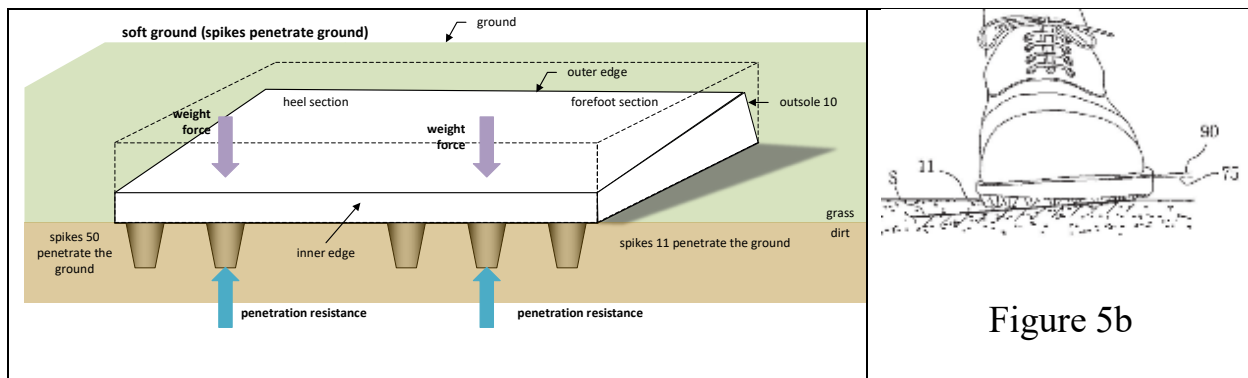
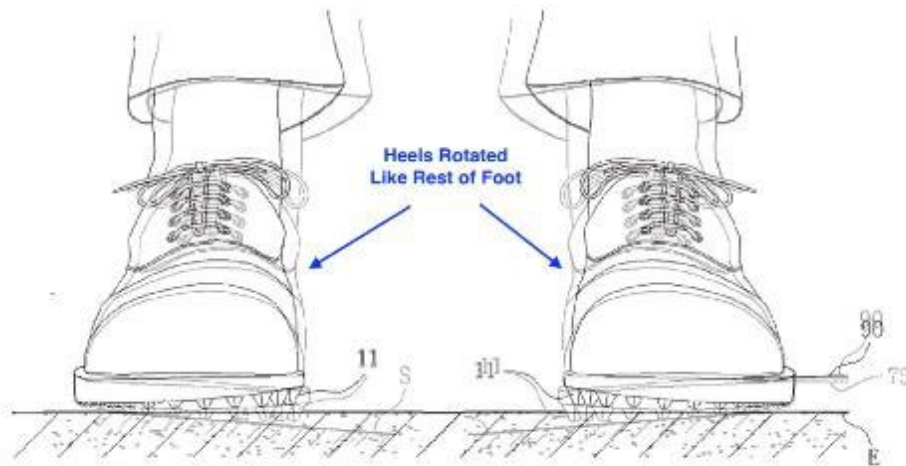


Figure 5b

113. When the spikes penetrate the ground, the entire foot tilts inward as shown above. That the entire foot tilts is evident from a superimposition of Figure 5b over Figure 5a as shown below.

FIG. 5a
FIG. 5b



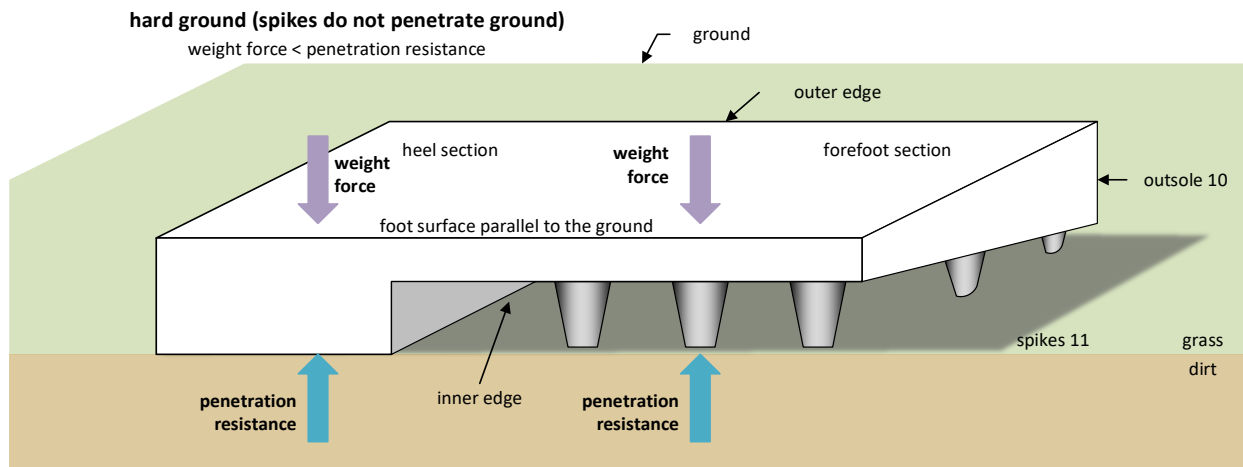
114. Starting from the bottom, inside edge of each foot in the combined Figures 5a and 5b, and moving toward the top of the figures, the distance between lines that depict the foot on solid surface and the foot on soft ground steadily increases. If the heel did not incline like rest of the foot, the ankles in Figure 5a and 5b would be in the same position, and only the forefoot would rotate. That is not what is shown in these two Figures (the rotation of which is unmodified from Kim). The heel and leg get progressively further moving toward the top of the figures; if there were no heel rotation, they would not increase in separation moving toward the top of the figures. In other words, if the heel did not rotate like the rest of the foot, the ankles in Figure 5b would be in the same position as those in Figure 5a, and only the forefoot portion would rotate. That is not the case. The steady separation between

the sets of lines indicates clearly that the entire foot of the wearer, including the heel, is rotated inward toward the area between the feet in Kim's soft ground arrangement.

115. The rotation of the heel is evident in the superposition of Figure 5a over 5b and demonstrates that Figure 5b of Kim discloses spikes which lengthen from the inside edge to the outside edge at the heel, and that Kim's sole decreases in thickness by the same amount that the spikes lengthen.

116. Kim does disclose in paragraph 46, that the incline plan may be formed only at the front portion of the outsole, or only at parts of the front and/or rear portions of the outsole. In addition, in Figures 2 and 3a, Kim does not specifically show spikes in the heel section. Kim provides no further discussion on what such an outsole and spike pattern would look like. As such, this a "what if" embodiment.

117. One potential implementation of the "what if" embodiment is that the heel does not include spikes and is essentially a block form as shown in Figures 2 and 3a. An example of this implementation is shown below.

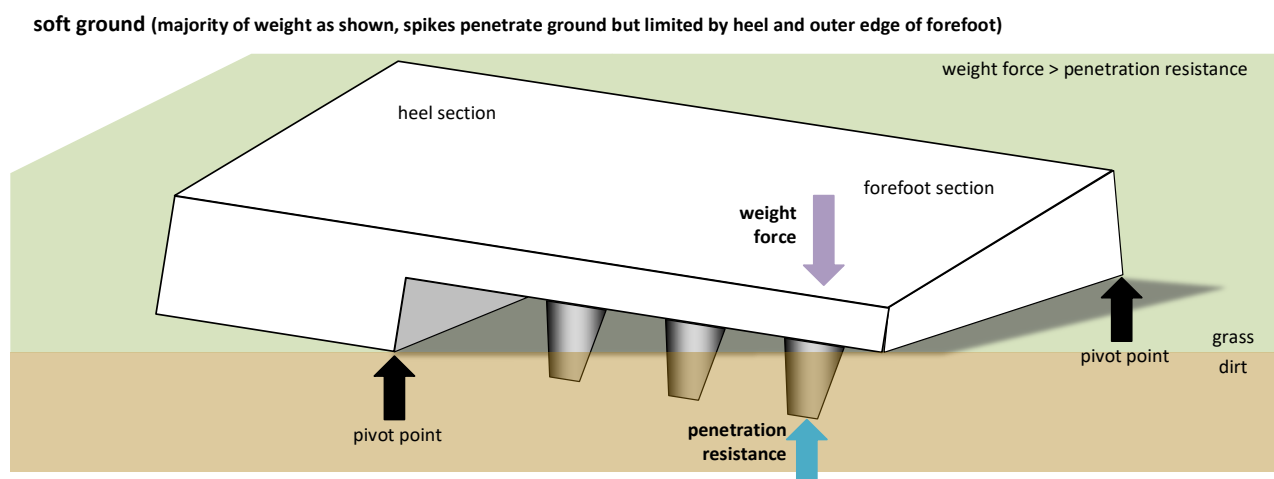


118. This figure shows the entire foot surface parallel to the bottom of the shoe (i.e., bottom of the sole and bottom of the spikes), which is in keeping with the entire upper surface of the outsole being parallel to the bottom of the spikes, which makes it parallel to the ground. *E.g.*, EX1005, Abstract, ¶14, ¶15, ¶33, ¶38, ¶39, ¶42, ¶45, claim 1. The forefoot has an outsole 10 with a slope and corresponding different length spikes 11 as postulated by paragraph 46.

119. With weight forces in the heel section and in the forefoot section, the front edge of the heel becomes a pivot point. Like a teeter-totter, if there is more weight force in the heel section than in the forefoot section, the spikes do not penetrate the ground, and the upper surface of the outsole remains parallel to the ground, as is shown in the figure above.

120. If, however, more weight force is in the forefoot section than in the heel section, the spikes along the front edge of the sole would start to penetrate the ground

and the upper surface would tilt forward, not inward. If more weight force is in the forefoot section than in the heel section, the outsole continues to tilt forward until the front spike on the outer edge fully penetrates the ground. When this happens the outer front edge of the outsole becomes a second pivot point. If even more weight force is in the forefoot section than in the heel section, the outsole continues to tilt forward and starts to tilt inward based on the two pivot points as shown below. Even in this position, the upper surface of the outsole is parallel to the bottom the shoe (e.g., the bottom of the heel and the bottom of the spikes 11).



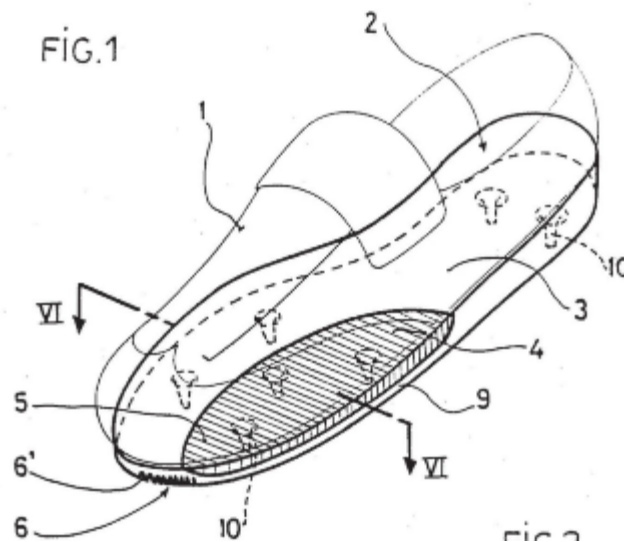
121. Overall, the golf shoe of Kim is designed so the ground and weight forces control whether a foot tilts inward or not. The shoe itself does not control the tilting. The combination of the outsole and the spikes as shown in the different embodiments above, have a lower surface (i.e., the bottom of the spikes) and an

upper surface (i.e., the top surface of the outsole) that are parallel regardless of the ground conditions and regardless of the weight forces.

C. Dufour (EX1006)

122. Dufour discloses a golf shoe to be worn on the left foot for a right-handed golfer and the right foot for a left handed golfer. EX1006, 1:5-10.

123. Dufour discloses numerous embodiments for the sole 2 of a golf shoe of Figure 1.



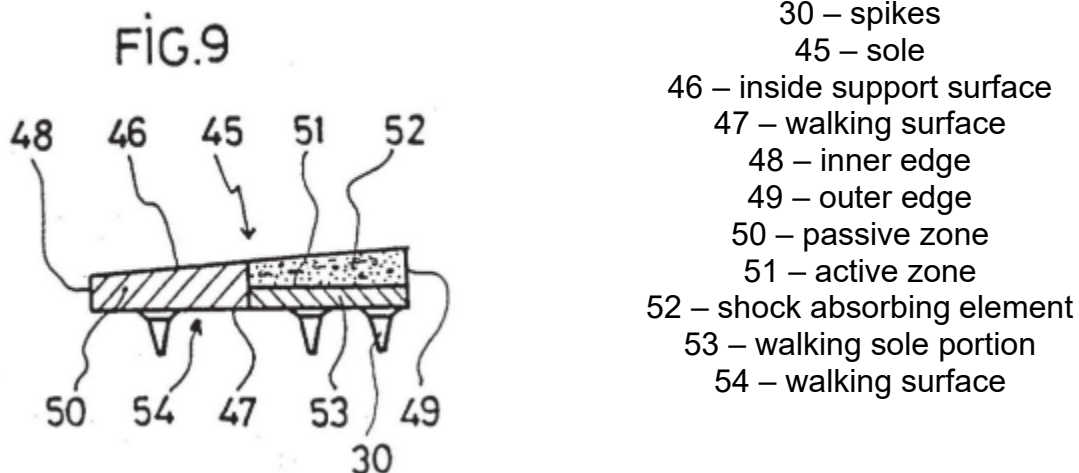
124. This sole has two separate zones, respectively 3 and 4, intended to accommodate and support the golfer's left foot. According to the invention, the first of these zones (3) extends under most of the foot, from the heel to the front end of the sole, while the second zone (4) covers only a small surface located substantially

connected to the place occupied by the 3rd, 4th and 5th metatarsals and respective first phalanges of the golfer's foot. *Id.*, 3:51-59.

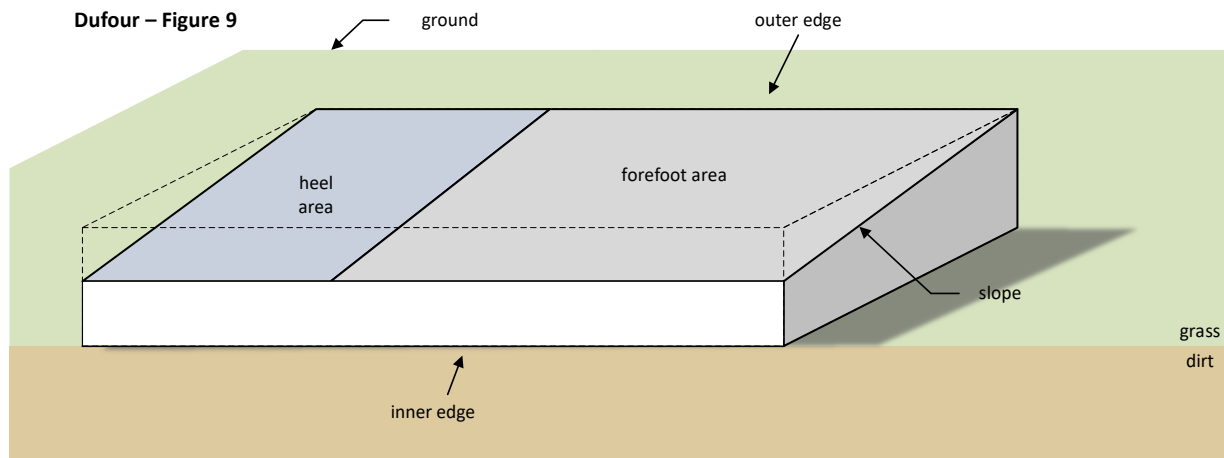
125. The “passive” zone 3 constitutes the main seating for the foot and is made of a material having a certain hardness, while the “active” zone 4 is comprised, on the one hand, of a shock absorbing element 5 essentially corresponding to the zone 4, which is made of a softer material and, on the other hand, a structure 6 which can deform transversely to the longitudinal axis of the sole 2. *Id.*, 3:59-66.

126. Dufour describes several embodiments of the disclosed shoe. Of Dufour's various embodiments, two are relevant to this proceeding: (1) the embodiment shown in Figures 8-10; and (2) the embodiment shown in Figures 11 and 12.

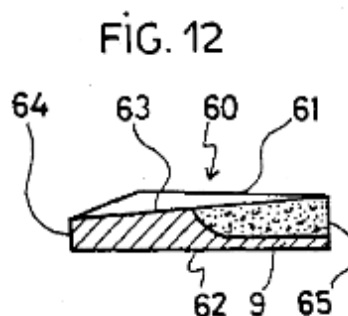
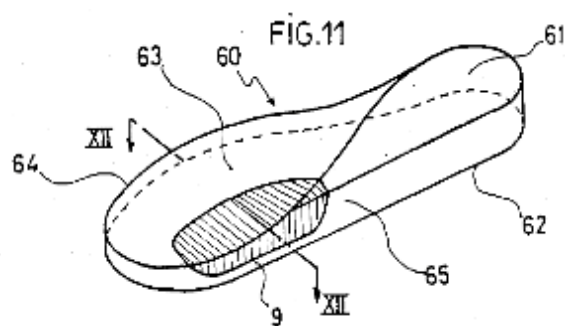
127. One of the sole embodiments (Embodiment #1) is represented by Figure 9, which is a cross section of Figure 1 at line VI – VI. This embodiment includes an inner to outer “wedge” that extends the length of the shoe from the heel to the toe.



128. The passive zone 50 of Figure 9 corresponds to the passive zone 3 of Figure 1. The passive zone 3 extends from the heel to the toe as mentioned above. Thus, passive zone 50 of Figure 9 extends from the heel to the toe of the sole. Since the support surface 46 is represented as a line, the wedge shape of Figure 9 extends from the heel to the toe (i.e., same sole thickness on the inner edge 48 at the heel of the sole as it is at the cross section VI and the same sole thickness on the outer edge 49 at the heel of the sole as it is as the cross section VI). The figure below is three-dimensional representation of embodiment #1, which corresponds to Figure 9.



129. Figures 11 and 12 illustrate the second embodiment. In this embodiment, the foot surface “at the level of the heel, via the plantar support zone 61, remains substantially parallel to the walking surface 62, while the support surface 63 in the front area of the foot is inclined upwards from the inner edge 64 towards the outer edge 65.” *Id.*, 5:7-14.

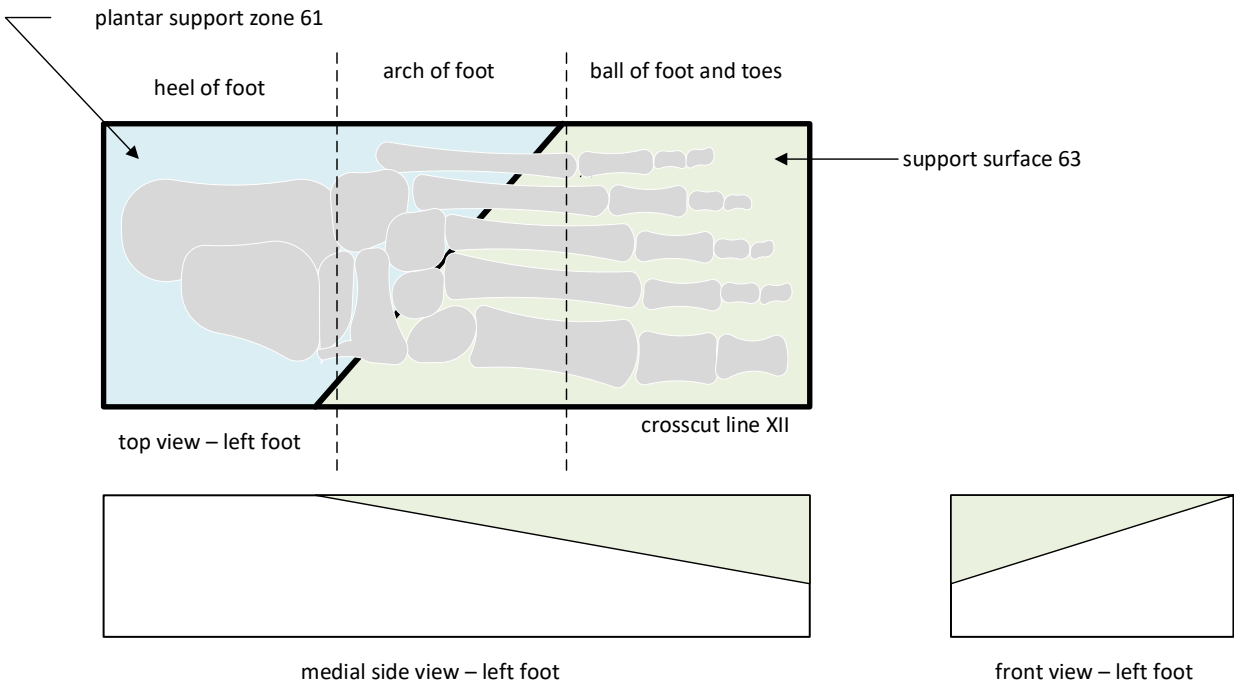


130. This embodiment of Dufour has two surfaces: a declined support surface 63 and a flat plantar support zone 61. As shown in Figure 12 above, the flat plantar support zone 61 at the top of the image – which is showing the back of the shoe, i.e., the heel – is at the same height as the outer edge 65. This can be seen at

the top-right corner of the image. The declined support surface 63 includes the inner to outer “wedge” that includes a single slope from the inner edge 64 to the outer edge 65. The outer edge 65 of the declining support surface 63 is shown in the figures to be at the same height as the outer edge of the plantar support zone 61.

131. Figure 12 shows that the height of the outer edge of both the plantar support zone 61 and the height of the outer edge of the support surface 63 are the same. Plantar support zone 61 is parallel to the ground from the inner edge to the outer edge of the shoe. Dufour explains that plantar support zone 61 “at the level of the heel remains substantially parallel to the walking surface 62.” *Id.* 5:7-11.

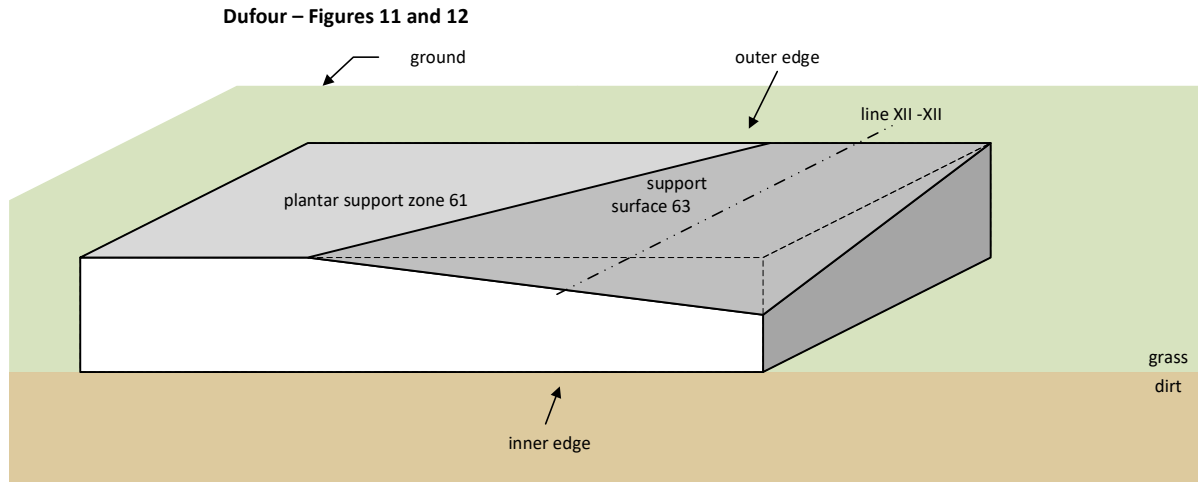
132. In contrast, support surface 63 has an upward sloping angle relative to the ground from the inner edge to the outer edge of the shoe. As to support surface 63, Dufour explains that “the support surface 63 in the front area of the foot is inclined upwards from the inner edge 64 towards the outer edge 65.” *Id.* 5:11-14. The figure below illustrates top, medial side, and front view of the sole of Figures 11 and 12. The top view illustrates how of foot would sit on the sole.



133. While Figures 11 and 12 of Dufour do not show a medial side view, the figures above show the medial side view based on Figures 11 and 12. As such, Figures 11 and 12 of Dufour and the above figures clearly show a “wedge” of the support surface 63.

134. The figure below is three-dimensional representation of this second embodiment of Dufour, which corresponds to Figures 11 and 12. With particular focus on Figure 12, it illustrates that the outer edge is of uniform height from the cross-section line XII to the plantar support zone 61, which is substantially parallel to the ground. If the support surface 63 were angling downward on the outer edge from the plantar support zone 61, the support surface 63 on the outer edge 65 would not extend to the plantar support zone 61; it would be a lower point based on the

angle. Since the outer edge heights of the plantar support zone 61 and the support surface 62 are the same, there is no slope along the outer edge of the sole.



135. With the plantar support zone 61 being substantially parallel to the ground, it is also substantially parallel to the bottom of the sole.

136. Since the outer edge of the support zone is at the same height as the plantar support zone 61, it too is parallel to the bottom of the sole.

137. Thus, in the Figure 11 and 12 embodiment, the heel remains at the same height as the outer toe and only the inner toe is at a lower height, creating only two slopes and not three.

D. Rubin (EX1007)

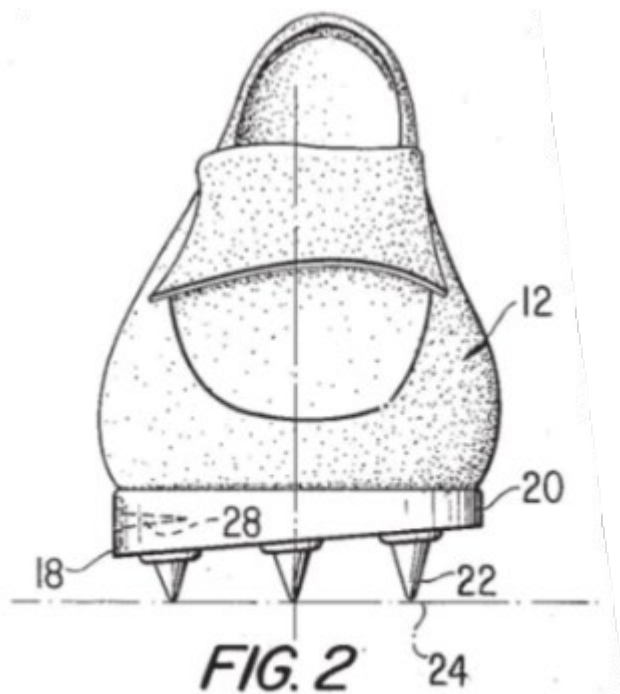
138. Rubin is directed to a golf shoe that is similar to the golf shoe of Kim, except it is specifically designed only to be worn on the rearmost foot of the golfer.

EX1007, 3:2-5 (golf shoe for the “rearmost foot positioned when the golfer takes his stance over the ball.”).

139. Rubin’s shoe discloses a sole 14 attached to a shoe upper. *Id.*, 2:1-3; claim 1, claim 4, Abstract. The sole and upper are molded into one integral piece. *Id.*, 2:33-34; 2:59-61; claim 2, claim 6. A conventional heel 16 is also molded integrally with sole 14. *Id.*, 2:66-67.

140. Rubin discloses a hard surface and soft ground arrangement. As described below, Rubin’s golf shoe has cleats that do not penetrate hard ground so that the foot remains level to the ground (i.e., to the bottom of the cleats) as shown in Figure 2. When on softer ground, the cleats penetrate the ground and the foot tilts inward as shown in Figure 4. This is the primary embodiment of Rubin. If Figures 1 and 3 are reviewed in a vacuum without reference to Figures 2 and 4, and disregarding the specification, then Rubin discloses a “what if” embodiment: What if the heel did not include cleats and did not include the slope. This embodiment is not discussed at all in Rubin’s specification.

141. Rubin’s shoe includes a “wedge-shaped sole 14” that has an “outer side 18” that “extends downwardly from the shoe upper 12 to a lower elevation than the inner side 20 of [the] sole.” *Id.*, 3:9-11, 3:59-61. Rubin’s shoe includes cleats (22) which are shorter on the outer side (18) than the inner side (20). In Rubin, the

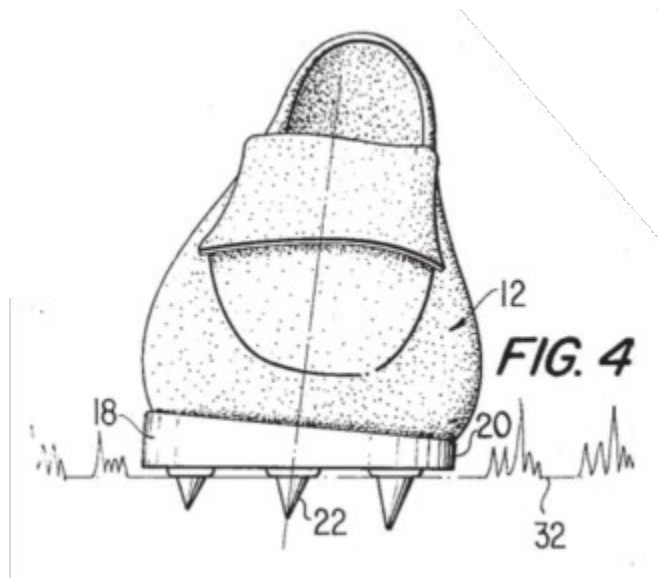


143. As can be seen from Figure 2, above, Rubin's cleats are parallel to the ground. As discussed in the preceding paragraphs, the inverse proportionality of the height of Rubin's cleats and the thickness of its sole enables the wearer's foot to be substantially level, i.e., parallel to the ground, on a hard surface. Thus, the bottom of the cleats and the top of the sole are parallel to each other, and both are parallel to the ground.

144. Rubin also discloses that the lengthening cleats causes the shoe to rotate when worn on soft ground.

145. In particular, when the golfer wears the shoe when standing on a soft playing surface, "the golfer will imbed cleats 22 in a golf playing surface The[] rearwardmost foot of the golfer will be tilted inwardly because of the wedge-shaped sole 14 of shoe 10. This will tend to provide a more satisfactory weight distribution when hitting the ball." *Id.*, 3:56-62.

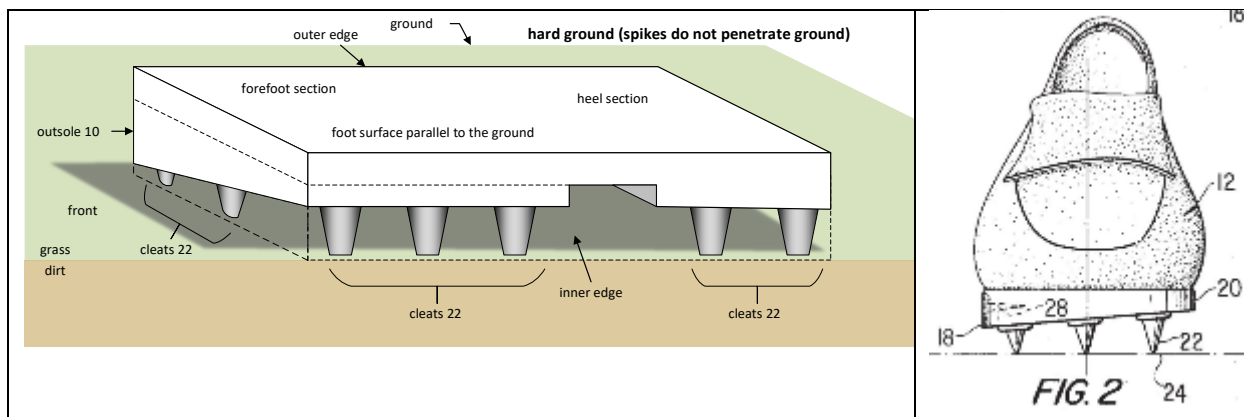
146. This inward tilt of the entire foot is shown in Figure 4, which shows both the heel and toe of the rear foot tilted inward based on the vertical line over the shoe. As shown in Figure 4, below, the entire shoe of Rubin is rotated on soft ground, not just the heel.



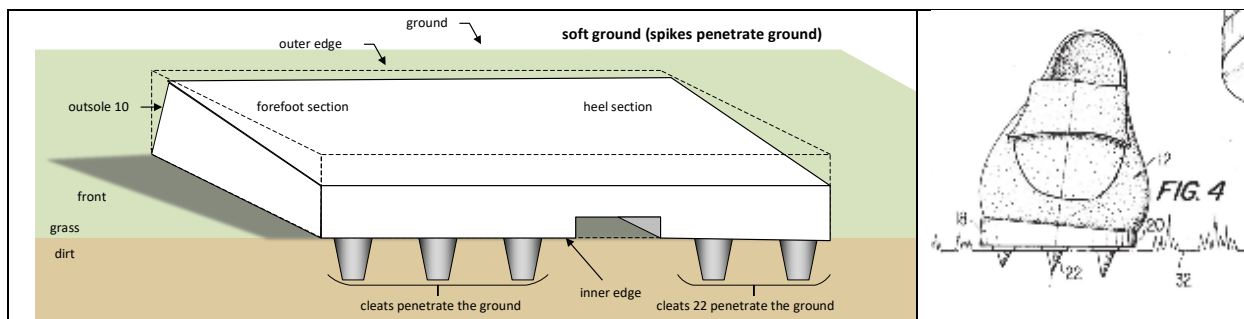
This is clear from Figure 4 based on the foot opening, where the wearer's heel would rest, being tilted in the same amount as the rest of the shoe. The tilting of the opening is made evident by the presence of the dotted line which was vertical in Figure 2 but is at an angle in Figure 4, even by the foot opening.

147. The following drawings further illustrate the golf shoe of Rubin on hard and soft surfaces.

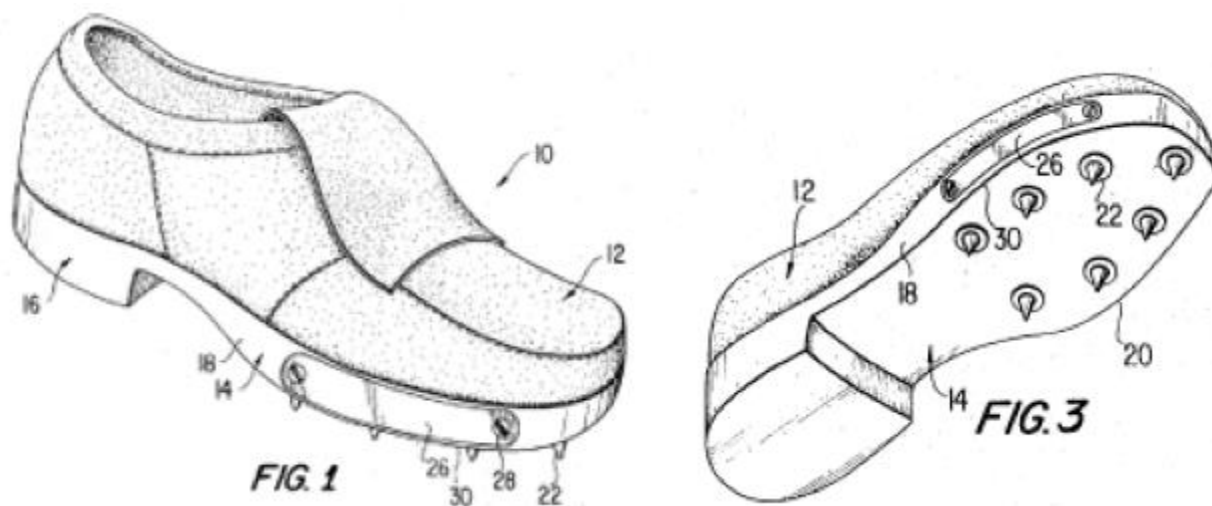
148. The figure to the left, below, is a figure illustrating Rubin's shoe on a hard surface, representing the shoe depicted in Figure 2 of Rubin, on the right. As the shoe is on a hard surface, the cleats on the bottom of the shoe do not penetrate the ground. Because the foot surface of Rubin is parallel to the bottom of the cleats, when Rubin's shoe is on a hard surface, the foot surface is parallel to the ground.



149. The figure to the left, below, is a figure illustrating Rubin's shoe on soft ground, representing the shoe depicted in Figure 4 of Rubin, on the right. Since the shoe is on soft ground, the cleats on the shoe do penetrate the ground. This causes the inner edge of the shoe, where the cleats are longer, to penetrate further into the ground. As a result, the foot surface of Rubin is angled upwardly relative to the ground from the inside edge to the outside edge of the shoe. The inner edge of the shoe is at a position that is lower than the outside edge by an amount equal to the difference of the thickness of Rubin's sole between those two points. The foot surface is only angled in the transverse direction of the shoe (i.e., from the inside edge to the outside edge of the shoe), not in the longitudinal direction (i.e., from the front to the back of the shoe).

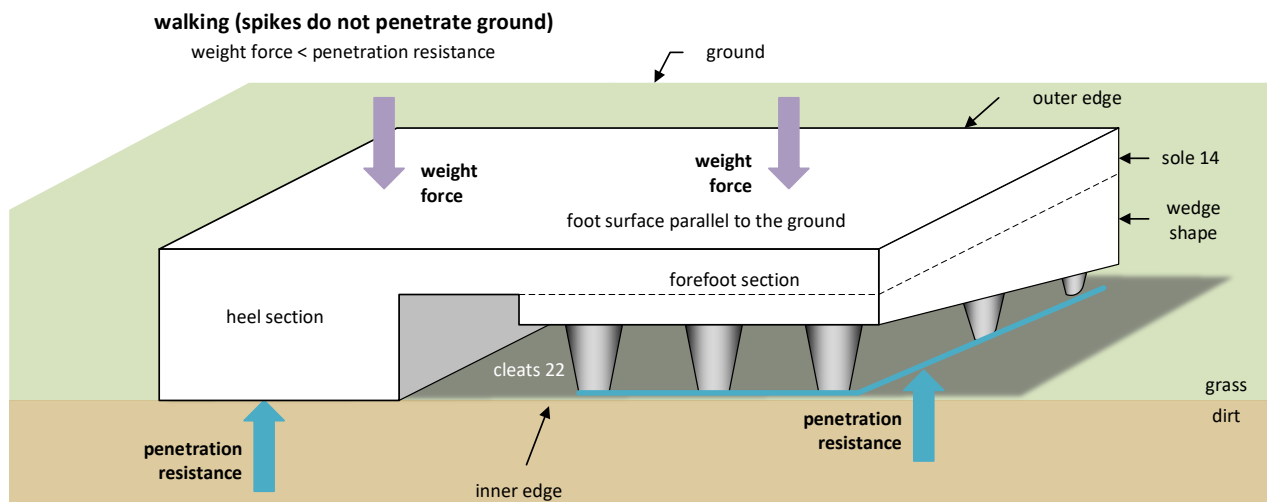


150. In the “what if” embodiment of Figures 1 and 3, the heel of Rubin’s golf shoe does not include cleats, whereas the rest of the shoe does. This embodiment is neither discussed nor mentioned in the specification. The two figures 1 and 3 are shown below and do not show cleats in the heel section.



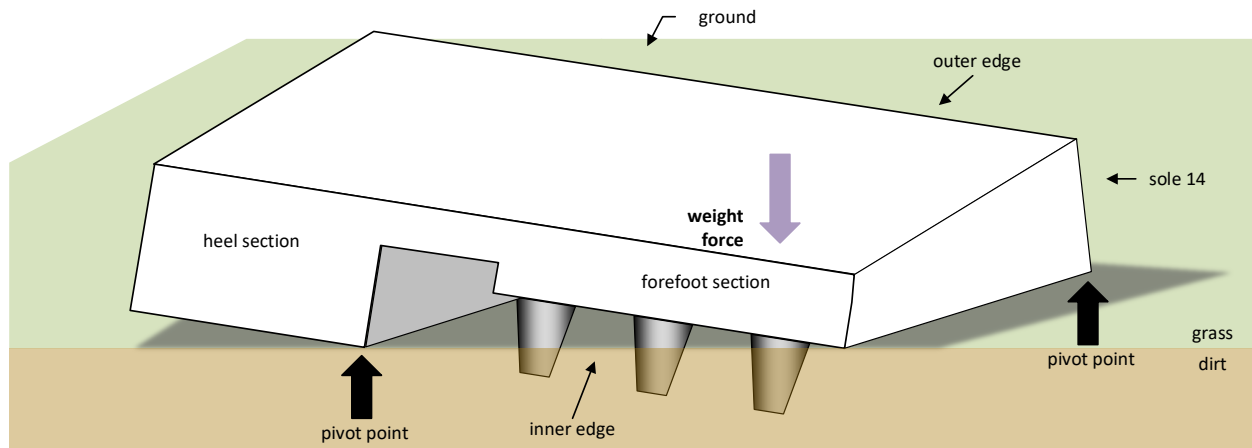
151. Figures 1 and 3 also do not show the features of the forefoot as show in Figures 2 and 4. In particular, they do not show the slope of the sole 14 and do not show the different length cleats.

152. Thus, if Figures 1 and 3 were viewed in a vacuum without regard to the rest of the patent, then the figure below is a representation of a “what if” embodiment, which shows the entire foot surface level with respect to the bottom of the shoe (i.e., bottom of the sole and bottom of the cleats). This is in keeping with the entire upper surface of the outsole being parallel with the bottom of the cleats and, thus, parallel to the ground. EX1007, 3:34-37; 2:16-21; 4:4-8; and Abstract. The forefoot has a sole 14 with a wedge shape and corresponding different length cleats 22.



153. With weight forces in the heel section and in the forefoot section, the front edge of the heel becomes a pivot point. Like a teeter-totter, if there is more weight force in the heel section than in the forefoot section, the cleats do not penetrate the ground, and the upper surface of the sole remains parallel to the ground, as is shown in the figure above.

154. If more weight force is in the forefoot section than in the heel section, then the cleats along the front edge of the sole would start to penetrate the ground and the upper surface would tilt forward, not inward. If more weight force is in the forefoot section than in the heel section, the sole continues to tilt forward until the front cleat on the outer edge fully penetrates the ground. When this happens the outer front edge of the sole becomes a second pivot point. If even more weight force is in the forefoot section than in the heel section, the sole continues to tilt forward and starts to tilt inward based on the two pivot points as shown below. Even in this position, the upper surface of the sole is parallel to the bottom the shoe (e.g., the bottom of the heel and the bottom of the cleats 22).



155. Overall, the golf shoe of Rubin is designed so the ground and weight forces control whether a foot tilts inward or not. The shoe itself does not control the tilting. The combination of the sole and the cleats as shown in the different

embodiments above, have a lower surface (i.e., the bottom of the cleats) and an upper surface (i.e., the top surface of the sole) that are parallel regardless of the ground conditions and regardless of the weight forces.

E. Conventional Shoes

156. To substantiate his contention that a “heel platform” and all of its claimed features are conventional, Mr. Delgatty provides pictures of the exterior of six shoes and two design patents (D275,146 and D310,294).

157. The pictures of the six shoes only include the exterior of the shoes. The pictures do not include any annotations regarding what part of the shoes correspond to a heel platform, any annotations regarding measurements, or any annotations of what’s within the shoes that constitute a heel platform. The only “evidence” that a heel platform with a consistent height throughout is a conventional shoe feature is Mr. Delgatty’s statement that he designed shoes, or oversaw the design of shoes, that included the claimed heel section.

158. To a POSITA, it is generally understood that the exterior of a sole (midsole and outsole) does not provide any insight into the internal structure of the sole (midsole, insole, and/or outsole within the shoe on which a foot sits). To illustrate this point, Figure 1 of Umezawa (U.S. Published Patent Application No. 2007/0107258) shows a cut-away of the heel section in Figure 1. Figure 2 of

Umezawa is a top view of the midsole 10 of the shoe of Figure 1. The midsole 10 includes side walls 18, which are used to secure the upper 4 to the bottom part 6 (which includes the insole 8, the midsole 10, and the outsole 12) and may include an exterior ornamental design.

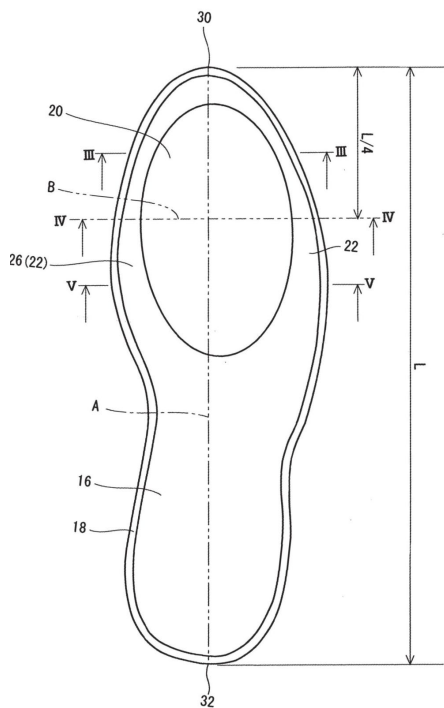


Fig. 2

[0033] As shown in FIG. 2 to FIG. 5, the midsole 10 has a base 16 and a side wall 18 which is located on the outer edge of this base 16. This midsole 10 is designed for a right foot. The shape of the midsole for a left foot is a mirror-reversed shape of the shape illustrated in FIG. 2. In FIG. 3 to FIG. 5, the left side direction indicates an inside direction and the right side direction indicates an outside direction.

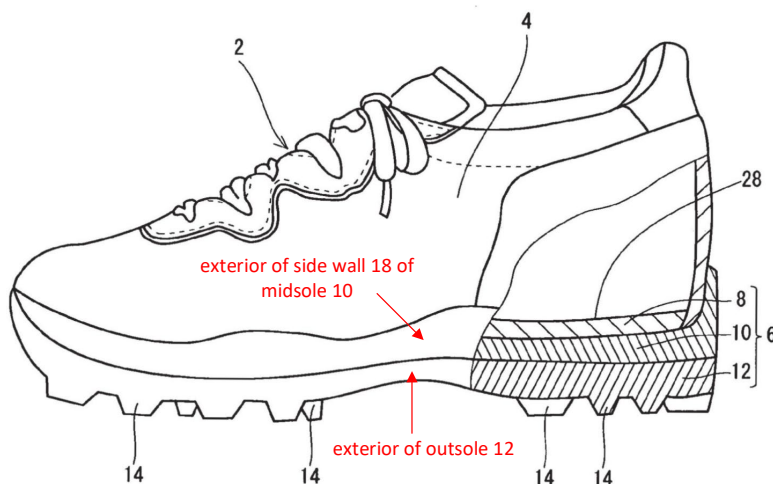


Fig. 1

[0032] A golf shoe 2 illustrated in FIG. 1 comprises an upper 4 and a bottom part 6. The bottom part 6 has an insole 8, a midsole 10 and an outsole 12. The insole 8 is laminated with the midsole 10. The midsole 10 is laminated with the outsole 12. The outsole 12 has a number of projections 14 protruding downward on the lower surface. The material and structure for the upper 4 are equal to those of known upper. The material and structure for the insole 8 are equal to those of known insole. The material and structure for the outsole 12 are equal to those of known outsole.

159. Clearly, from the example of Umezawa, the exterior of the wall 18 of the midsole 10 and the exterior of the outsole 12 as shown in Figure 1 before the cut-away section (forefoot) provide no information regarding the internal structure of the sole, which is shown in the cut-away section of the heel. Similarly, the pictures

of the six shoes provided by Mr. Delgatty provide no information regarding the internal structure of a heel platform. The particular features of the heel platform section of claim 1 and claim 5 are with respect to edges of the apparatus of claim 1 or edges of the athletic positioning sole section of claim 5. The edges correspond to where the foot interacts with the shoe and are within the exterior of the shoe. As such, the six shoes as presented do not teach or suggest that a heel section of claim 1 or of claim 5 is a conventional shoe feature.

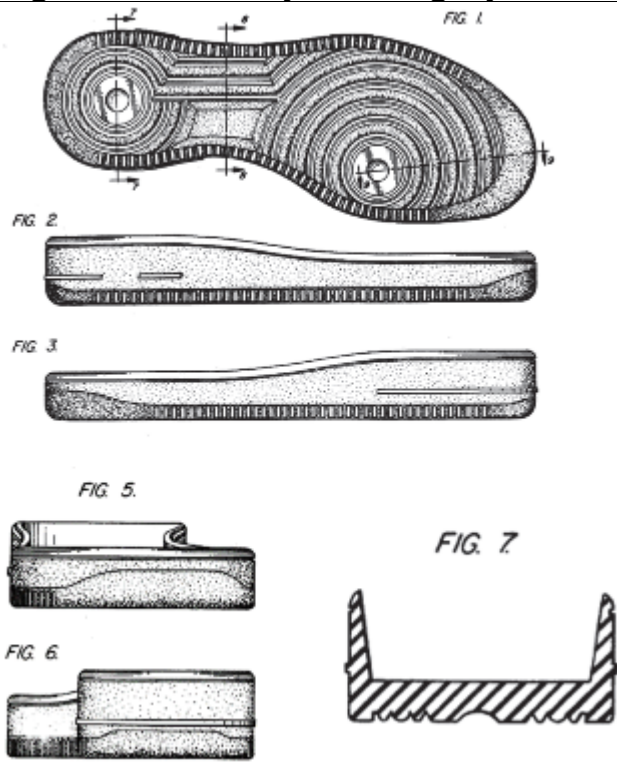
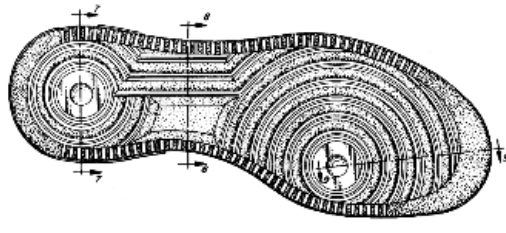
160. The particular features of the heel platform section of claim 1 and of claim 5 are with respect to edges of the apparatus of claim 1 or edges of the athletic positioning sole section of claim 5. The edges correspond to where the foot interacts with the shoe and are within the exterior of the shoe. As such, the six shoes presented by Mr. Delgatty do not teach or suggest that a heel section of claim 1 or of claim 5 is a conventional shoe feature.

161. Mr. Delgatty seems to be aware that the exterior pictures of shoes provide no information regarding the internal structure of a sole, which is why he included the two design patents.

162. In paragraph 50 of his declaration, Mr. Delgatty states that: “A heel platform section that has a uniform height throughout and a top surface that is substantially parallel to its bottom surface is also shown in Nike’s U.S. Design Patent

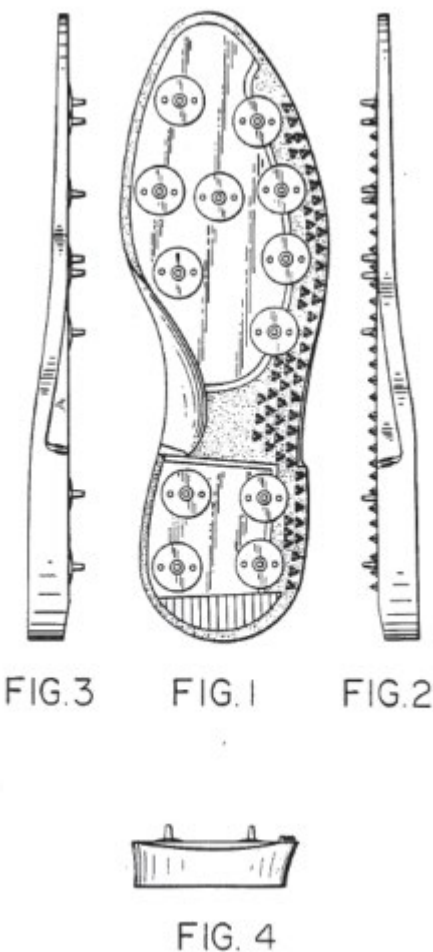
No. D275146, filed in 1982, which discloses the sole for Nike’s ‘Air Force One’ basketball shoe.” EX1002, 23 (emphasis added).

163. After paragraph 50, Mr. Delgatty includes the figures of design patent D275,146, which are shown on the left side of the table below. The figures provided by Mr. Delgatty did not include page 1:

Figures Provided by Mr. Delgatty	Front Page of the Design Patent
	United States Patent [15] [11] Patent Number: Des. 275,146 Kilgore [45] Date of Patent: Aug. 21, 1984 [54] SHOE OUTSOLE [75] Inventor: Bruce J. Kilgore, Exeter, N.H. [71] Assignee: Nike, Inc., Beaverton, Oreg. [*] Term: 14 Years [21] Appl. No.: 381,564 [22] Filed: May 25, 1982 [52] U.S. Cl.: D2/320 [58] Field of Search: D2/264-324; 36/1, 1.5, 25 R, 32 R, 59 C, 102 [56] References Cited U.S. PATENT DOCUMENTS D. 38,641 4/1/81 Paret D2/323 D. 39,142 1/1/82 McKenna 36/10 R D. 125,656 3/1/84 Cutler D2/320 D. 125,657 3/1/84 Cutler D2/323 D. 124,930 4/1/83 Armstrong D2/320 4,266,349 5/1/81 Schroll D2/320 X OTHER PUBLICATIONS New Yorker Magazine, 4/26/51, p. 15—Noa—Slip Sole at lower right. [37] CLAIM The ornamental design for a shoe outsole, as shown and described. DESCRIPTION FIG. 1 is a bottom plan view of a shoe outsole showing my new design; FIG. 2 is a side elevational view of the lateral side of the outsole of FIG. 1; FIG. 3 is a side elevational view of the medial side of the outsole of FIG. 1; FIG. 4 is a top plan view of the outsole of FIG. 1; FIG. 5 is a front elevational view of the outsole of FIG. 1; FIG. 6 is a rear elevational view of the outsole of FIG. 1; FIG. 7 is a sectional view taken along line 7-7 of FIG. 1; FIG. 8 is a sectional view taken along line 8-8 of FIG. 1; FIG. 9 is a sectional view taken along line 9-9 of FIG. 1. 

164. The right side of the above table includes a copy of the upper portion of the first page of design patent D275,146. The title for design patent D275,146 is a “SHOE OUTSOLE,” not a sole as Mr. Delgatty states in paragraph 50.

165. In paragraph 52 of his declaration, Mr. Delgatty states: “See also the Golf shoe sole disclosed in Tretorn’s U.S. Design Patent No. D310294, filed in 1987.” EX1002, 26 (emphasis added). After paragraph 52, Mr. Delgatty includes figures of design patent D310,294, which are on the left side of the table below. The figures provided by Mr. Delgatty did not include page 1.

Figures Provided by Mr. Delgatty	Front Page of the Design Patent
 FIG. 3 FIG. 1 FIG. 2 FIG. 4	United States Patent [19] [11] Patent Number: Des. 310,294 Peterson [45] Date of Patent: ** Sep. 4, 1990 [54] GOLF SHOE BOTTOM [57] CLAIM The ornamental design for a golf shoe bottom, as shown and described. [75] Inventor: William R. Peterson, Braintree, Mass. [73] Assignee: Tretorn AB, Ronnowsgaton, Sweden [**] Term: 14 Years [21] Appl. No.: 139,714 [22] Filed: Dec. 30, 1987 [52] U.S. Cl. D2/317 [58] Field of Search D2/264, 265, 274, 311, D2/314, 317-321; 36/25 R, 28, 29, 30 R, 32 R, 43, 59 R, 59 B, 59 C, 80, 83, 102, 103, 114 [56] References Cited U.S. PATENT DOCUMENTS 4,546,559 10/1985 Dassler 36/114 X FOREIGN PATENT DOCUMENTS 103507 5/1984 European Pat. Off. 36/32 R OTHER PUBLICATIONS Boot & Shoe Recorder, 10/15/1956, p. 26—Golf Shoe Sole at center right. Primary Examiner—Louis S. Zarfas Attorney, Agent, or Firm—Donald Brown DESCRIPTION FIG. 1 is a bottom plan view of a golf shoe bottom showing my new design; FIG. 2 is a side elevation of the left side thereof; FIG. 3 is a side elevation of the right side thereof; FIG. 4 is an end elevation of the heel end thereof; FIG. 5 is an end elevation of the toe end thereof; FIG. 6 is a bottom plan view of a golf shoe bottom showing a second embodiment of my new design; FIG. 7 is a side elevation of the left side; FIG. 8 is a side elevation of the right side; FIG. 9 is an end elevation of the heel end; FIG. 10 is an end elevation of the toe end; FIG. 11 is a bottom plan view of a golf shoe bottom showing a third embodiment of my new design; FIG. 12 is a side elevation of the left side thereof; FIG. 13 is a side elevation of the right side thereof; FIG. 14 is an end elevation of the heel end; FIG. 15 is an end elevation of the toe end; FIG. 16 is a bottom plan view of a golf shoe bottom showing a fourth embodiment of my new design; FIG. 17 is a side elevation of the left side; FIG. 18 is a side elevation of the right side; FIG. 19 is an end elevation of the heel end; and FIG. 20 is an end elevation of the toe end. The top is unornamented. 

166. A copy of the first page of design patent D310,294 is shown in the right side of the above table. The title for this design patent is “GOLF SHOE BOTTOM”; not a golf shoe sole as Mr. Delgatty stated in paragraph 52.

167. The two design patents are regarding specific bottoms, not soles as mislabeled. The fact that two design patents show that an outsole as a flat upper surface provides no information as the shape of the upper surface of a midsole. The two designs do not provide any evidence that a heel platform has a uniform height arounds its perimeter or that such a design would have been a conventional feature in all prior art shoes.

168. Based on the foregoing, in my opinion, Mr. Delgatty has failed to establish that a heel platform with a uniform height throughout is a conventional feature of a shoe.

X. MR. DELGATTY DOES NOT SHOW THAT ANY CHALLENGED CLAIM WOULD HAVE BEEN OBVIOUS

A. General Discussion Regarding Nonobviousness

169. As discussed above, each of the prior art references (Kim, Dufour, and Rubin) disclose various forms of an integrated inner to outer “wedge” in a golf shoe to help a golf stance. The “wedge” runs the length of shoe in Kim, Rubin, and in various embodiments of Dufour. In one embodiment of Dufour (Figures 11 and 12),

the “wedge” is included in a support surface 63 and the remainder of the sole is a plantar support zone 61.

170. In each prior art reference, the “wedge” has a single, consistent slope from inside towards the outside moving from the front to the back of the shoe, and there is no slope along the outside edge of the wedge (i.e., the outside edge of the shoe). Since there is no slope along the outside edge of the “wedge,” there is no height change along the outside edge of the shoe.

171. In contrast, the claims of the ’291 patent require an athletic positioning shape to create an athletic position for the athlete wearing the shoes. The athletic positioning shape is formed by the heel section and the angled platform section and various differing heights at the different positions of the shoe.

172. As will be described in greater detail below, (1) the “wedge” of the prior art only shifts weight forces in two dimensions (angled inward), not three (angled inward and angled forward on both edges of the forefoot); (2) the athletic positioning shape shifts weight forces in three dimensions (angled inward and angled forward on both edges of the forefoot); and (3) the three dimensional weight force shifting of the athletic positioning shape is not obvious in view of the two dimensional weight force shifting of a wedge of the three prior art references.

B. Ground 1: Kim Does Not Disclose or Render Obvious Independent Claim 1.

173. Kim includes two embodiments: a primary embodiment that is disclosed and discussed extensively and a “what if” embodiment that is not disclosed, only mentioned as a possibility. In his declaration, Mr. Delgatty relies on the “what if” embodiment and further excludes the spikes from his analysis as discussed below. The different heights of the spikes are key part of the inventive concept of Kim.

174. Each of the primary embodiment of Kim and the “what if” embodiment of Kim do not teach or suggest an athletic positioning shape having first, second, and third heights, where the first height is greater than the second height, which is greater than the third height.

175. To create a shoe design based on Kim, especially one that would be an obvious iteration, a POSITA would first need to understand what Kim is teaching. As part of the understanding, a POSITA would determine what was the design objective(s) of Kim and would learn that there were two design objectives: (1) keep the foot parallel to the ground when on hard ground and (2) tilt the foot inward on soft ground.

176. As another part of the understanding, it would be reasonable for a POSITA to create his/her own drawings like the ones herein.

177. As yet another part of the understanding, a POSITA would learn how Kim achieves its design objectives in the embodiments of Kim. A POSITA would learn that golf shoe of Kim is designed so the ground and weight forces control whether a foot tilts inward or not as result of the spikes penetrating the ground. The shoe itself does not control the tilting as discussed in the overview of Kim section.

178. With an understanding of Kim, a POSITA would know:

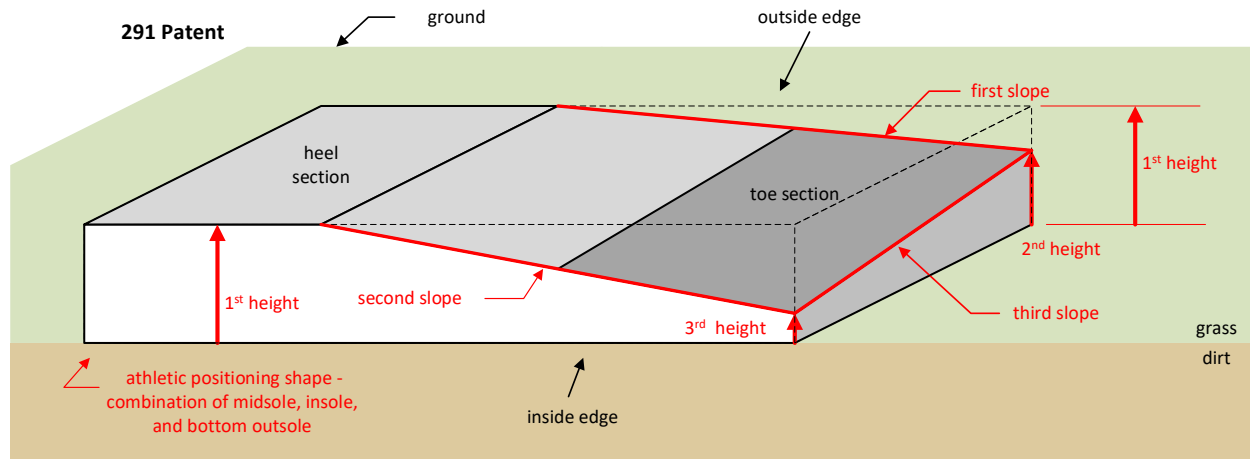
- Kim had different design objectives than the current design objectives for the embodiment of claim 1 (i.e., design a shoe that puts an athlete in a better athletic position),
- the embodiments of Kim look very different than the embodiments of claim 1, and
- there is no obvious way to modify Kim to achieve the current design objectives as discussed in detail below.

1. Kim Does Not Disclose a First, Second, or Third Height or a First, Second, or Third Slope as Claimed.

a. A POSITA would understand that the '291 patent claims measure height relative to the bottom of the shoe.

179. Claim 1 of the '291 patent requires an “athletic positioning shape” consisting of a midsole, insole, and bottom outsole. The athletic positioning shape has a first height, second height, and third height. These three heights form a first

slope, a second slope, and a third slope. The following block diagram illustrates the claimed heights and slopes:



180. A POSITA would understand that in the '291 patent, the cleats/spikes on the bottom of a golf shoe are a part of the outsole. For example, the '291 patent describes how a “sport specific bottom” of the shoe is part of its outsole: “the integrated sole and insole may include an outsole of a rigid material (e.g., a sport specific bottom).” EX1001, 28:16-18, 28:48-50 (emphasis added). A “sport specific bottom,” can include “a spike and/or cleat pattern” for “golf,” or other bottoms specific to baseball, football, and soccer. *Id.*, 21:22-26; 21:51-55.

181. The general definition of “height” from Meriam Webster’s is: “the highest part, the distance from bottom to top of something standing upright, and/or the extent of elevation above a level.” EX2015. This is consistent with how a POSITA would understand the term is used in the '291 patent.

182. A POSITA would understand from the '291 patent that the heights of the claims in the '291 patent measure the distance from the bottom of the cleats/spikes to the top of the insole, along the vertical axis. This distance may or may not be different than the distance from the ground to the top of that component. On hard ground, the distance from the bottom of the cleats to the top of the outsole would be the same as the height of the top of the insole to the ground.

183. On soft ground, however, if the spikes sink into the ground, the distance between the bottom of the cleats and the ground is a “negative” height since the spikes are below ground. The top of the insole with respect to the ground would be less than it is with respect to the bottom of the cleats (at least at some points) by the negative amount of that the spikes penetrate the ground.

184. The '291 patent does not use the word “height” to mean an absolute distance above the ground. For example, if part of the bottom outsole, such as a cleat or a spike, went below the ground, the '291 patent would not consider that part of the outsole to have a negative height—it would still have a positive height value; its value would still count toward the claimed heights. A POSITA would understand that the first, second, and third heights consider the distance from the bottom of the spikes to the top of the outsole, regardless of the shoe’s height above or below the ground.

185. Claim 8 also explains to a POSITA that this is the correct understanding of “height” in the patent. That claim requires that the second height “includ[e]” three constituent heights: (1) “an insole second height component”; (2) “a midsole second height component”; and (3) “a bottom outsole second height component.” EX1001, 44:30-32. Claim 8 also requires a “third height component” in relation to the insole, midsole, and bottom outsole. *Id.*, 44:33-35. A POSITA would understand that the second and third “heights” of claim 1 “includ[ed]” these three component heights of claim 8 if each of claim 8’s components were measured from its bottom to its top, not from the ground to its top.

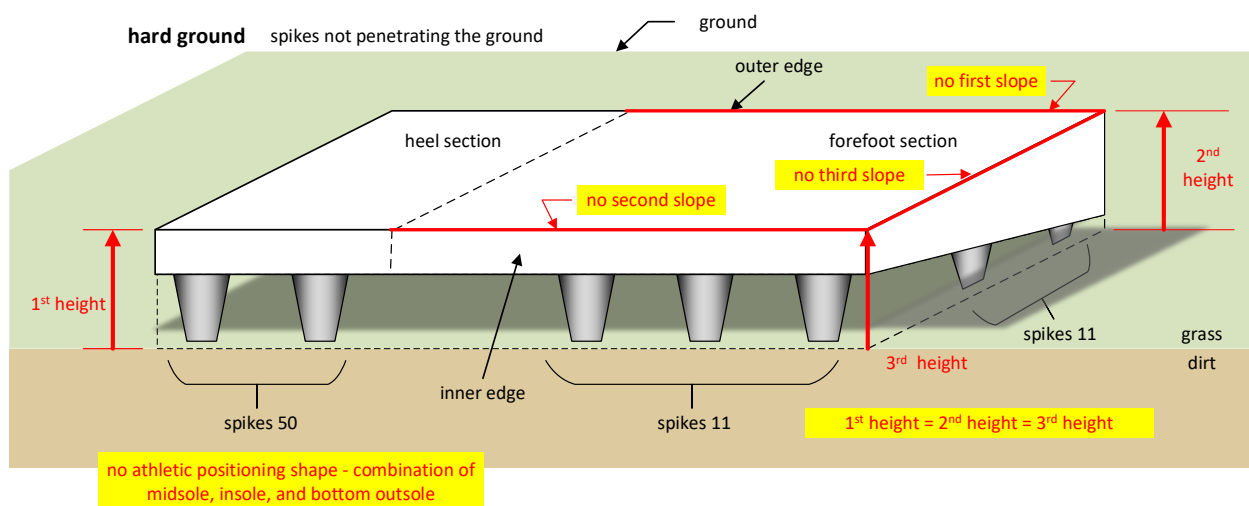
186. Claim 1 is similarly consistent. Claim 1 requires the first, second, and third heights to form the athletic positioning without making any reference to the type of ground on which the shoe rests. *See* EX1001, 43:15-36. A POSITA would understand that the “heights” of claim 1 refer to the distance from the bottom of the cleats (bottom outsole) to the top of the insole, not from the ground to the top of the insole.

187. As such, the heights of claim 1 are the same regardless of whether the spikes are on a hard surface or if they have been pressed into soft ground.

b. Kim does not disclose a first, second, or third height or slopes when measuring height from the bottom of the shoe.

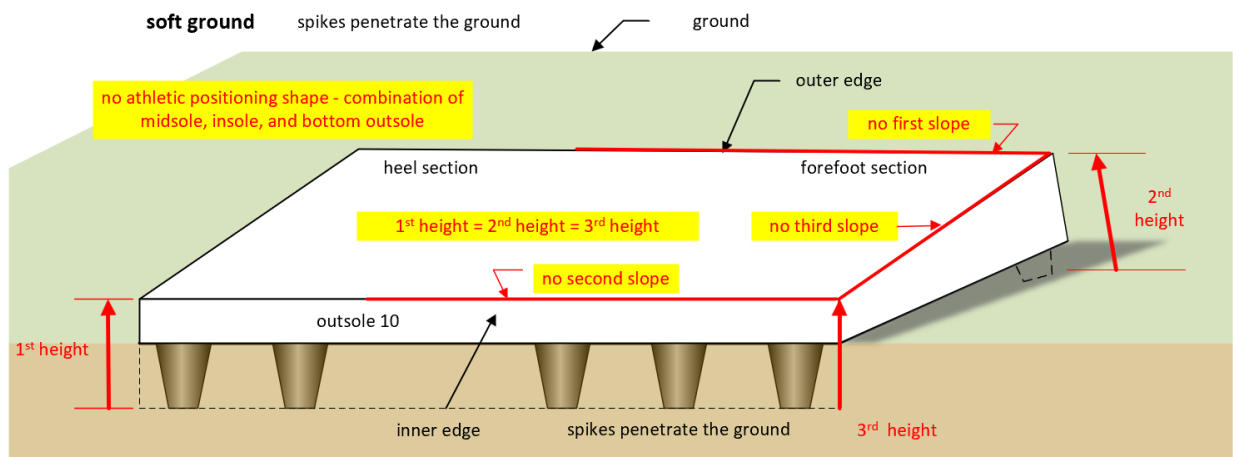
188. As discussed above, the primary embodiment of Kim includes an upper surface on which the foot sits being parallel to the bottom of the spikes so, when on hard ground, the bottom of the wearer's foot is parallel to the surface of the hard ground.

189. The figure below illustrates the primary embodiment of Kim on hard ground with annotations corresponding to claim 1. At an inside edge and at an outside edge of the sole along a heel section it has a first height. On the outside edge of the sole at a toe section, it has a second height. As shown, the second height is equal to the first height, since the upper surface of the outsole 10 is parallel to the bottom of the spikes. On the inside edge of the sole at the toe section, it has a third height, which is equal to the first and second heights.

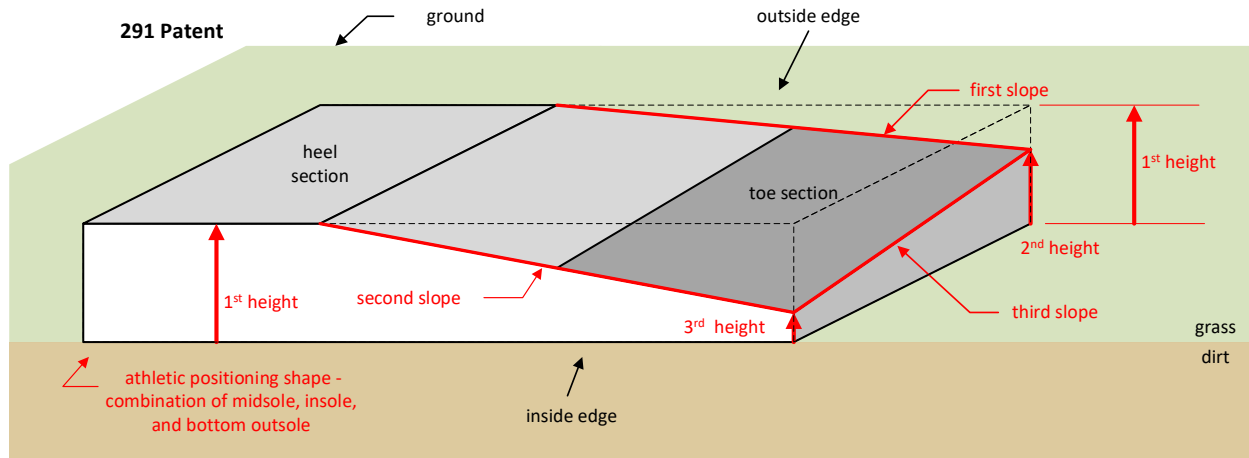


190. Since the first, second, and third heights are the same, they do not form different first, second, and third slopes. Thus, Kim's primary embodiment does not render claim 1 obvious.

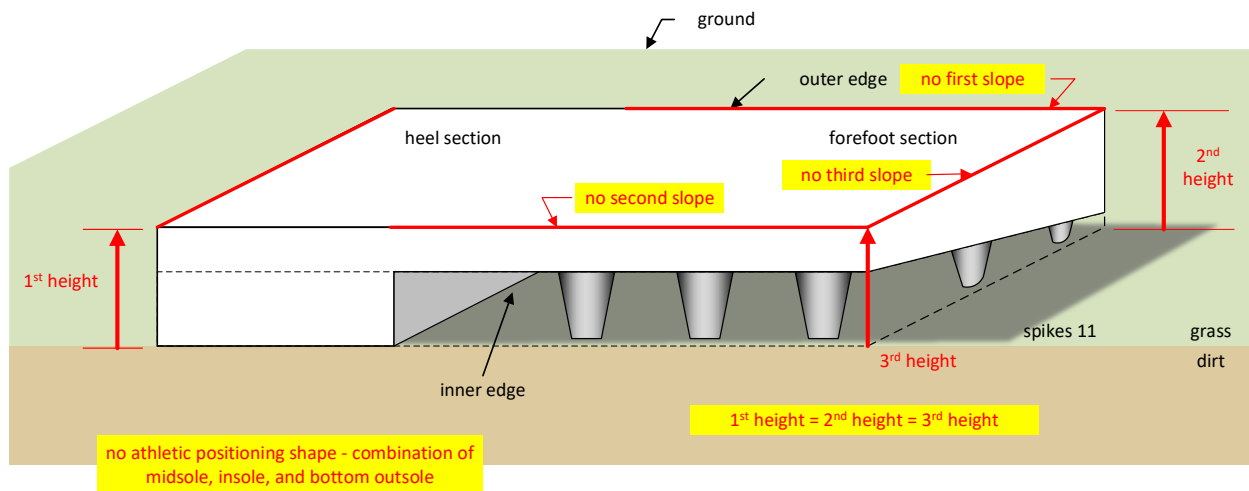
191. Even when the spikes penetrate the ground; the bottom of them are still parallel to the upper surface of the outsole 10. This is clear in the block diagram illustrated below.



192. This is further substantiated by a visual comparison of Kim's primary embodiment above and an embodiment of claim 1, below. The embodiment figure of claim 1 was discussed in the overview of the '291 patent section.



193. The following figure illustrates the “what if” embodiment of Kim (no different length spikes and no corresponding slope in the heel) that I discussed above at length in the overview of Kim section. The illustration below shows the “what if” embodiment on hard ground with annotations corresponding to claim 1.



194. At an inside edge and at an outside edge of the sole along a heel section it has a first height. On the outside edge of the sole at a toe section, it has a second height. As shown, the second height is equal to the first height, since the upper

surface of the outsole 10 is parallel to the bottom of the spikes. On the inside edge of the sole at the toe section, it has a third height, which is equal to the first and second heights.

195. Since the first, second, and third heights are the same, they do not form different first, second, and third slopes. Thus, Kim’s “what if” embodiment does not render claim 1 obvious, even when the spikes penetrate the ground; the bottom of them are still parallel to the upper surface of the outsole 10. This is further substantiated by a visual comparison of Kim’s primary embodiment above and an embodiment of claim 1, above.

196. Based on the foregoing, it is clear that Kim does not render claim 1 obvious.

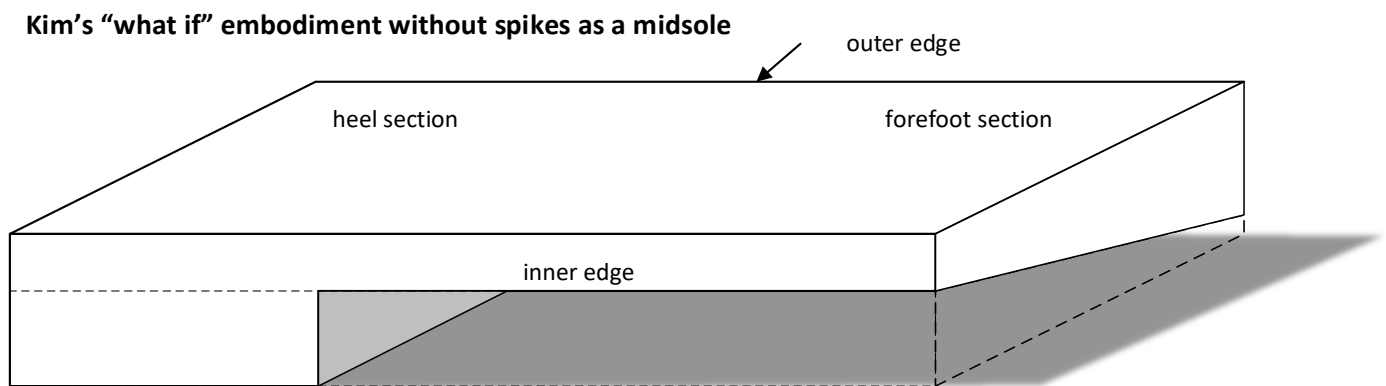
2. Mr. Delgatty Incorrectly Identifies a First, Second, and Third Height and Slope in Kim by Excluding the Cleats.

197. Mr. Delgatty’s argument, and hence Petitioner’s, relies on the “what if” embodiment of Kim without the spikes. The “what if” embodiment was discussed above and it does not render claim 1 obvious because it has first, second, and third heights that are the same.

198. Kim explains that element 10 is the “outsole.” Kim further explains that a “plurality of spikes 11 are protruded from the lower surface of the outsole 10,” to give the golf shoe its grip. *Id.*, [0030]. In Kim, the outsole and spikes are a single

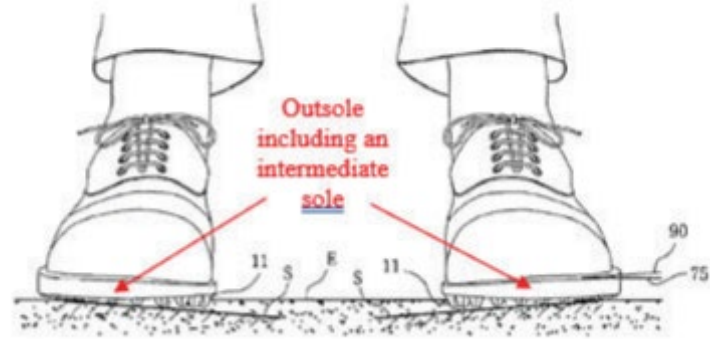
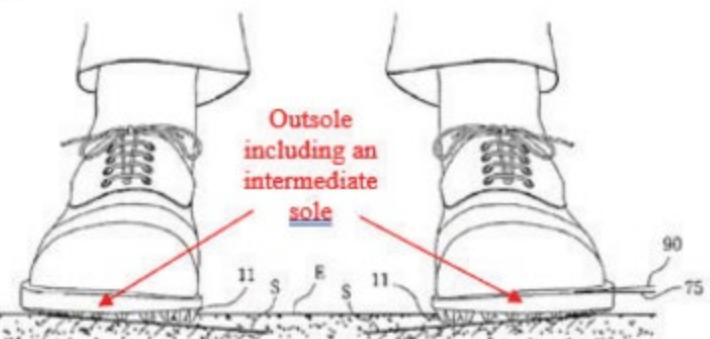
unit. According to Kim, the “spikes 11 are integrally formed with the outsole 10.” *Id.* (emphasis added); *see also id.* [0031] (“the spikes 11 integrally formed with the outsole 10”) *Id.*, [0031]. In addition, Kim explains that “the outsole 10 [is] attached to the lower surface of the upper leather portion 20, and adapted to contact the ground.” *Id.*, [0028] (emphasis added). A POSITA would understand from these disclosures that the outsole contacts the ground and the outsole includes the spikes (i.e., the outer sole of the outsole).

199. To support his contentions that Kim is teaching and/or suggesting an outsole with first, second, and third heights that are different, Mr. Delgatty modifies the “what if” embodiment by removing the spikes. The following illustrates the “what if” embodiment without spikes.



200. Regarding the claim elements of midsole and bottom outsole, Mr. Delgatty interprets paragraph 29 to mean that the intermediate sole of the outsole 10

is both the midsole and the outsole as shown below from his declaration. EX1002, pages 28 and 30:

claim element	Kim reference with annotations
midsole	FIG. 5b  The diagram shows a top-down view of a shoe sole. A red arrow points from the text 'Outsole including an intermediate sole' to the midsole area, which is labeled with '11' and 'S'. Another red arrow points from the same text to the outsole area, which is labeled with '90' and '75'. The text 'Outsole including an intermediate sole' is written in red, with 'intermediate sole' underlined in blue.
outsole	FIG. 5b  The diagram is identical to the one in the previous row, showing a top-down view of a shoe sole with a red arrow pointing from the text 'Outsole including an intermediate sole' to the midsole area (labeled '11' and 'S') and another red arrow pointing to the outsole area (labeled '90' and '75'). The text 'Outsole including an intermediate sole' is written in red, with 'intermediate sole' underlined in blue.

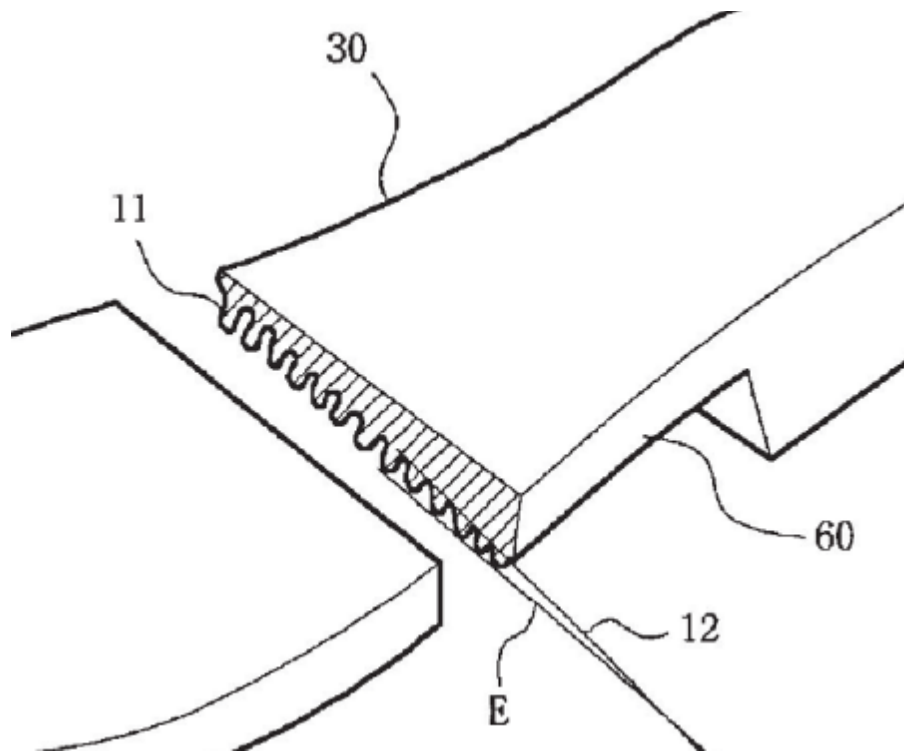
201. This is not what Kim discloses. The following is paragraph 29 of Kim in its entirety: “Generally, the outsole 10 includes an intermediate sole and an outer sole. Here, the outsole 10 denotes the intermediate sole and the outer sole.”

202. Kim does not specifically define intermediate sole or outer sole, but it does make it clear what each term means. In particular, a POSITA would know from

Kim that the outer sole is the spikes and the intermediate sole is the remainder of the outsole 10 above line 12. The following supports this statement.

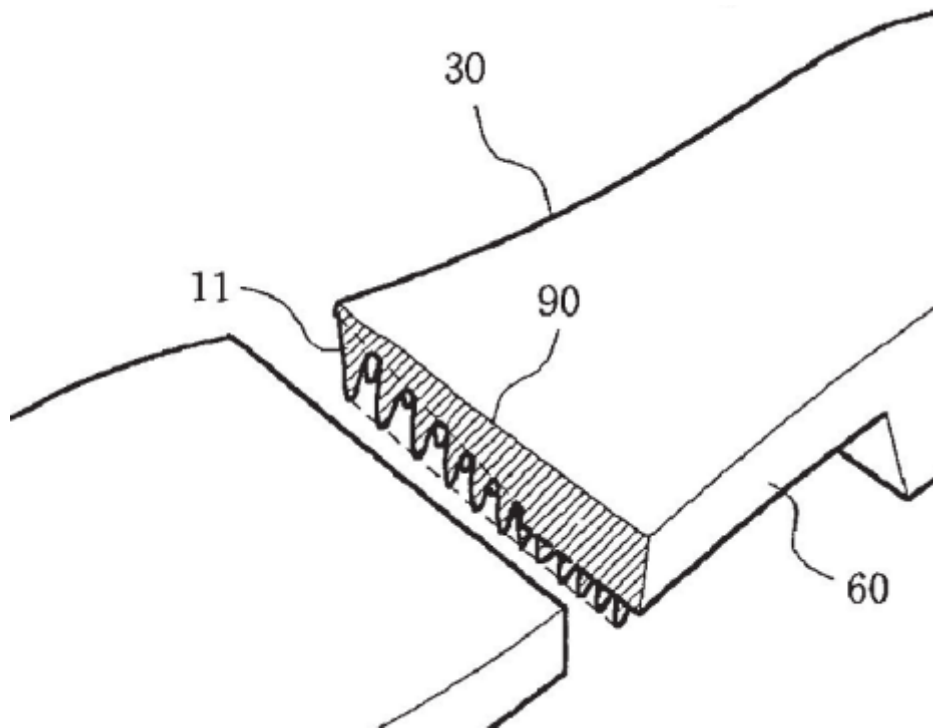
203. In paragraph 30, Kim discloses that spikes 11 protrude from the lower surface of the outsole 10 and are integrally formed with the outsole 10. The cleat-shaped spikes 50 may be integrally formed with the outsole 10 or are detectable.

204. The following figure is a zoom-in of Figure 2 at the cross cut, where Figure 2 is an exploded perspective view of an outsole of the golf shoe, illustrating a cross section taken along line AA of Figure 1. EX1005, [0026]. Reference #30 is regarding the inner edge, reference #60 is regarding the outer edge, reference number #11 is regarding the spikes, and reference #12 is regarding the lower surface of the outsole 10. *Id.*, [0027].



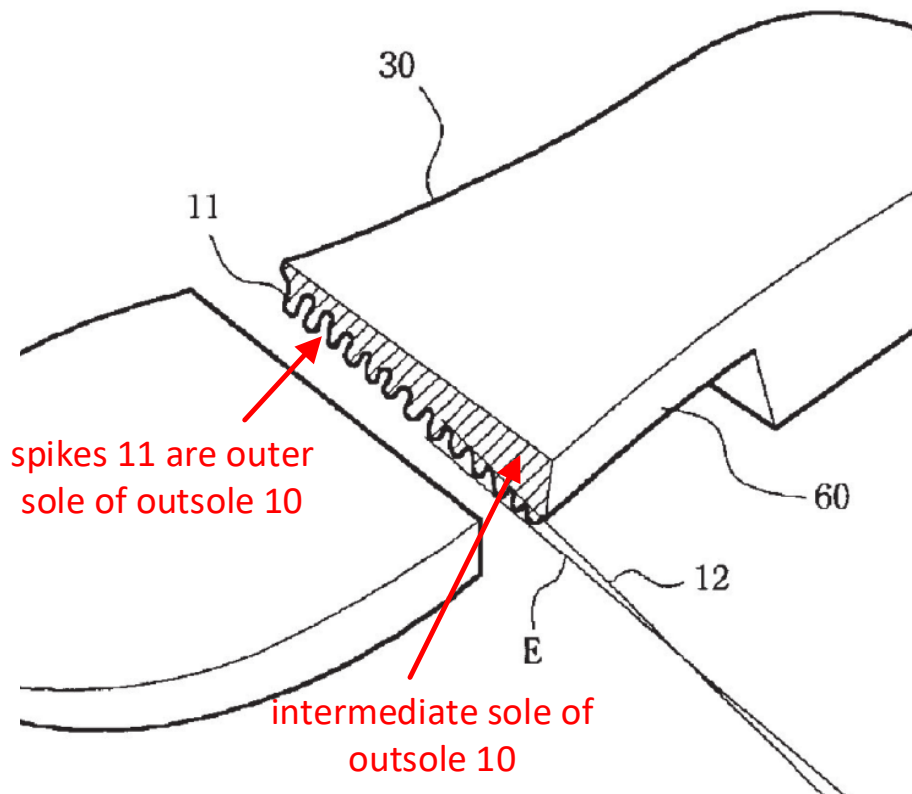
205. Line E represents the ground. *Id.*, [0033]. From this zoomed in version of Figure 2, the bottom of the spikes 11 are in contact with the ground E. The lower surface 12 of the outsole 10 angles upward from the outer edge 60 to the inner edge 30 and does not come in contact with the ground E. This zoomed in version of Figure 2 further illustrates that the spikes 11 are integrated into the outsole 10.

206. The following is a zoomed in version of Figure 3a, which is similar to Figure 2. In the embodiment of Figure 3a, the slope of the lower surface of the outsole does not extend fully from the outer edge 60 to the inner edge 30. There is a parallel to the bottom of the spikes section near the outer edge 60 before the upward slope begins.



207. This zoomed in version of Figure 3a also includes reference #90, which denotes a line representing the level of the golfer's feet being parallel with ground E. EX1005, [0039]. As is easily seen in this zoomed in version of Figure 3a, line 90 is parallel to the bottom of the spikes 11, which are in contact with the ground.

208. From the above and as shown below in annotated Figure 2, it is clear that "outer sole" of the outsole 10 means the integrally formed spikes 11 and the "intermediate sole" of the outsole 10 is the rest of the outsole 10 above the lower surface 12.



209. This is further supported by Figures 3b, 4a-4c, and 5a, which show that the spikes touch the ground (E). Thus, the spikes are part of the outsole 10 and, in particular, provide the outer sole of the outsole 10 and provide the contact with the ground. Even in Figure 5b, a majority of the contact with the ground is via the spikes even as they penetrate the ground.

FIG. 3b

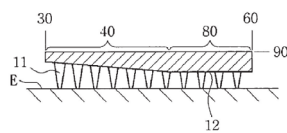


FIG. 4a

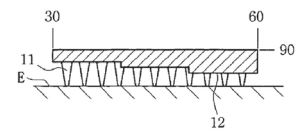


FIG. 4b

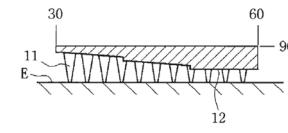


FIG. 4c

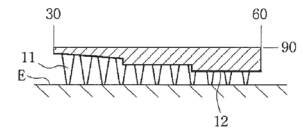


FIG. 5a

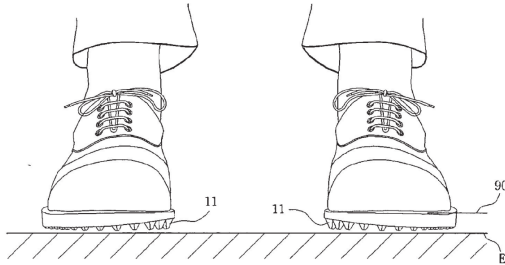
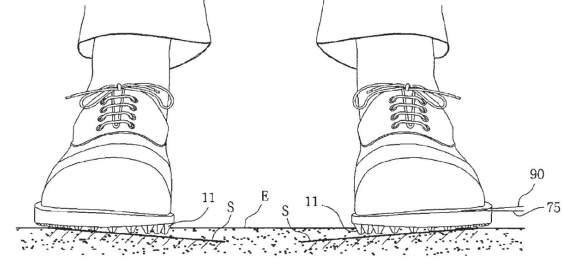


FIG. 5b



210. As such, Mr. Delgatty's treating of the intermediate sole as both the midsole and outsole is directly contradicted by the disclosure of Kim.

211. Even with this misinterpretation of Kim, Mr. Delgatty still has not shown that Kim discloses and/or suggests three different heights that create three different slopes. The following annotated versions of Figure 2 are from Mr. Delgatty's declaration. EX1002, pages 39 and 40.

FIG. 2

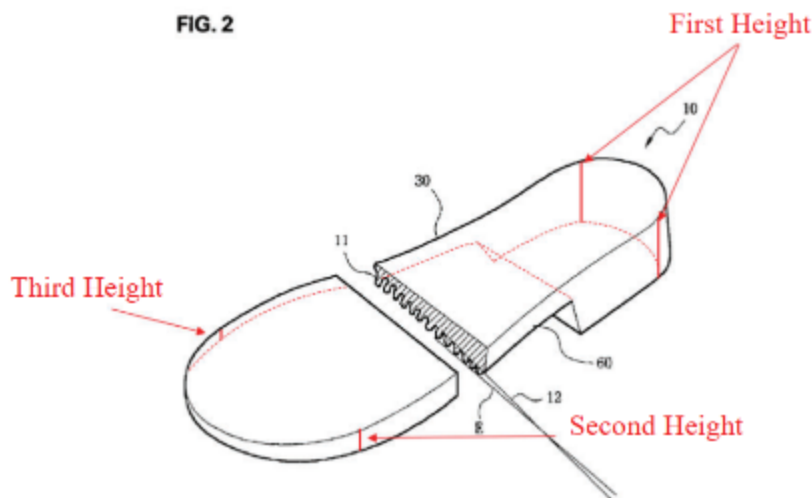


FIG. 2

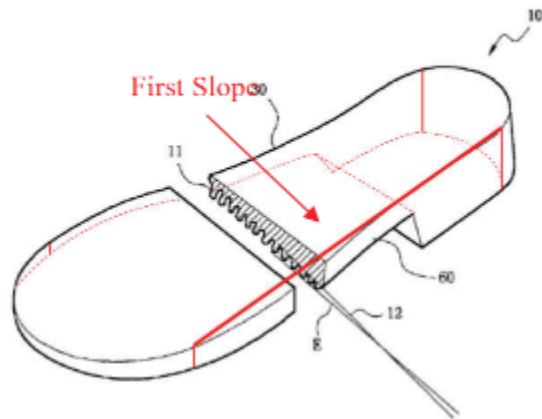


FIG. 2

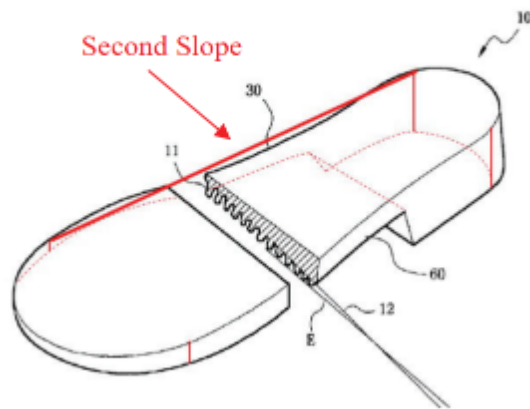
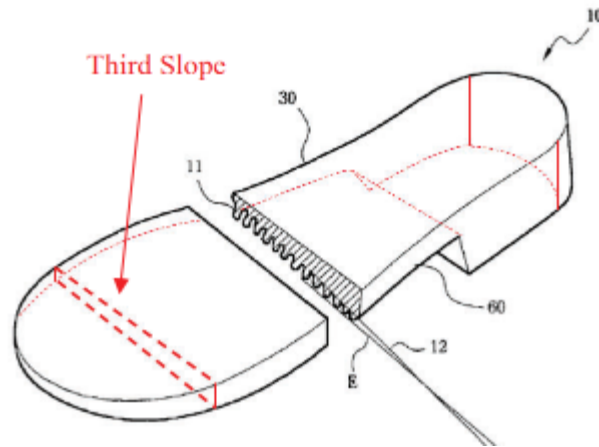
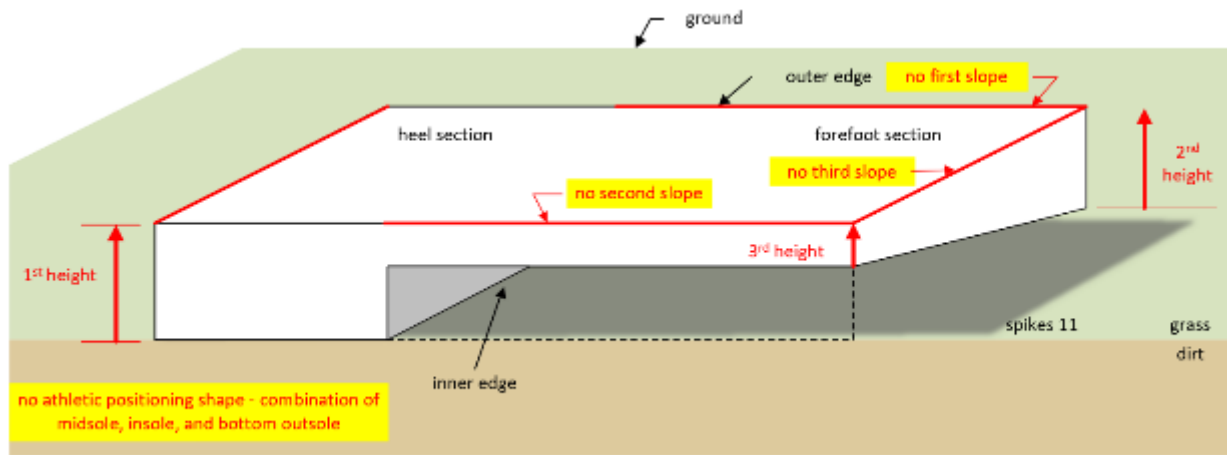


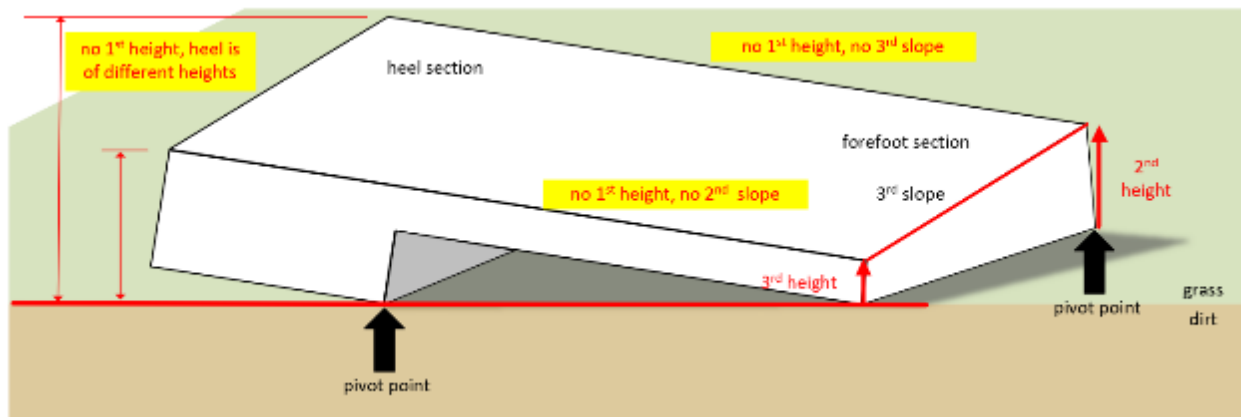
FIG. 2



212. Mr. Delgatty summarily concludes that a POSITA would understand that slopes inherently form between areas of different heights in a shoe sole, as shown in the figures above. But this conclusory statement is not supported by his own annotations. The lines he drew for the slopes are all at the top end of the lines he drew for the heights. Thus, the slopes he delineated are all on the top surface of the outsole of Kim—a surface that Kim discloses is parallel to the bottom of the spikes. As drawn, the slopes are all parallel to each other as shown below.



213. Even if the above “sole” were tilted forward, a POSITA would understand that it would not render claim 1 obvious.



214. As shown in the above figure, the tilted “sole” would not have a first height at an inside edge and at an outside edge of the shoe along a heel section of the shoe; they would be different.

215. Without such a first height, there can be no claimed first slope, which is formed by the first height and the second height, and there can be no second slope, which is formed by the first height and the third height.

216. In sum, by pointing only to Kim's intermediate sole of the outsole, and omitting the height of the cleats (i.e., the outer sole of the outsole), Petitioner has failed to show that Kim discloses or renders obvious any of the first, second, or third heights required by claim 1 of the '291 patent.

217. Based on the foregoing, Mr. Delgatty and Petitioner clearly do not show that claim 1 is obvious in view of Kim using this "what if" embodiment either.

3. All Dependent Claims are Patentable Over Kim.

218. Claims 2-5 depend on claim 1, which is patentable over Kim for the reasons explained above. Accordingly, by their dependency on claim 1, claims 2-5 are also patentable over this ground.

C. Ground 2: The Combination of Dufour and Kim Does Not Render Independent Claim 1 Obvious.

219. Petitioner and Mr. Delgatty acknowledge that Dufour does not expressly disclose a midsole coupled to the upper portion or an insole positioned proximal to the midsole. EX1002 at 50-51. They do say that Kim expressly discloses a midsole and an insole. Mr. Delgatty does not rely on Kim to disclose any other limitations.

220. Kim does not expressly disclose a midsole. Kim does not include the word "midsole" or "mid-sole" in the entire patent. Kim does mention in paragraph 29 that its outsole 10 includes an intermediate sole and an outer sole. As discussed

above in Ground 1, Kim discloses that the spikes are the outer sole of the outsole 10 and the rest of the outsole 10, above spikes, is the intermediate sole.

221. In ground 1, Mr. Delgatty referred to the intermediate sole as both the mid-sole and the bottom outsole with respect to his analysis of claim 1. Now, for Ground 2, he seems to be inferring that the intermediate sole is just a midsole. The intermediate sole cannot be both a midsole and a bottom outsole.

222. Dufour discloses multiple embodiments of a golf shoe with different sole designs and all with a shock absorbing material. For reference, the embodiments relied upon by Mr. Delgatty are: (1) a sloped inside edge to outside edge embodiment of Figures 8-10; and (2) an embodiment that includes a plantar support zone 61 and a support surface 63 of Figures 11 and 12.

223. To create a shoe design based on Dufour, especially one that would be an obvious iteration, a POSITA would first need to understand what Dufour is teaching. As part of the understanding, a POSITA would determine what was the design objective(s) of Dufour and would learn that the design objectives were to (1) create golf shoe that help create a better golf stance and swing and (2) create a golf shoe that includes shock absorbing element on the outer edge of the forefoot to allow the golf's foot to facilitate the rolling out of a golfer's front foot during a golf swing.

EX1006, Abstract, 1:5-11. The shock absorbing element can be included in multiple embodiments of a golf shoe as shown in the Figures.

224. As another part of the understanding, it would be reasonable for a POSITA to create his/her own drawings like the ones herein.

225. As yet another part of the understanding, a POSITA would learn how Dufour achieves its design objectives in the embodiments of Dufour. A POSITA would learn that golf shoe of Dufour has many sole embodiments, each including the shock absorbing material element.

226. Dufour had different design objectives than the current design objectives for the embodiment of claim 1 (i.e., design a shoe that puts an athlete in a better athletic position).

227. In fact, the design objective of Dufour is the opposite of the intended functioning of the athletic positioning shape of the '291 patent, which is to make the inner ball of foot area the primary contact point with the ground to shift weight forces to the inside of the legs. EX1001, 9:7-36. Dufour's intended purpose is to facilitate the foot rolling out in a golf swing.

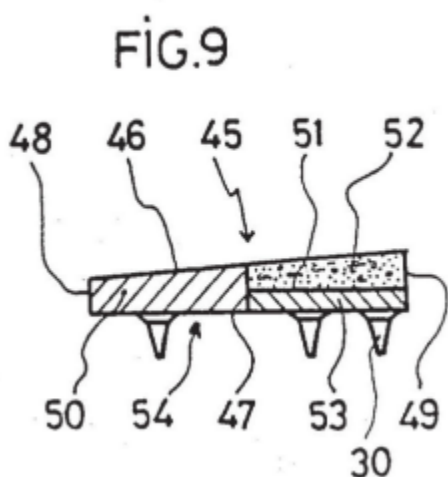
228. The embodiments of Dufour look very different than the embodiment of claim 1, and there is no obvious way to modify Dufour to achieve the current design objectives as discussed in detail below.

1. Dufour Does Not Disclose a First Height Greater Than a Second Height.

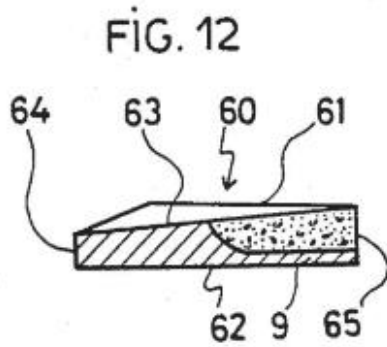
229. As mentioned above, Dufour discloses multiple embodiments of a golf shoe with different foot positioning. However, none of those embodiments show a sole with either a first height greater than a second height or a first slope (between the first height and second height).

Embodiment #1 – Figure 9 as representative of Figures 8, 9, and 10

230. Figures 9 and 12 show cross sections of the two shoe embodiments, looking from the front of the shoe toward the heel, as shown below:



- 30 – spikes
- 45 – sole
- 46 – inside support surface
- 47 – walking surface
- 48 – inner edge
- 49 – outer edge
- 50 – passive zone
- 51 – active zone
- 52 – shock absorbing element
- 53 – walking sole portion
- 54 – walking surface

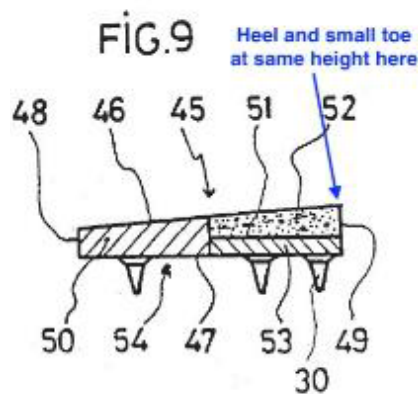


231. Figure 9 is a cross section view of an embodiment of a sole 45 of Figure 1 that includes a slope from the inner edge 48 to the outer edge 49 along inside support surface 46.

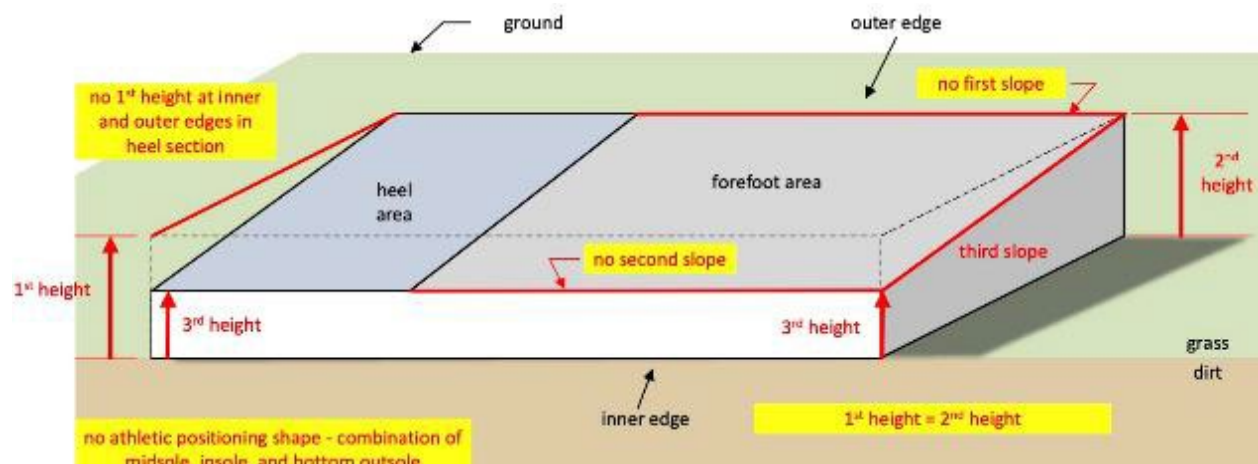
232. With respect Figure 12, the reference numbers represent the following: 9 is for the tapering of the passive zone 3 (EX1006, 4:7-8), 60 is for the sole, 61 is for the plantar support zone, 62 is the walking surface, 63 is the support surface, 64 is the inner edge, and 65 is the outer edge (*id.*, 5:7-14).

233. As can be seen from the figures, the support surfaces—46 in Fig. 9 and 63 in Fig. 12—are inclined upward from the inside edge (48 in Fig. 9 and 64 in Fig. 12) to the outside edge (49 in Fig. 9 and 65 in Fig. 12) of the shoe. This can be substantiated by comparing Figure 9 to Figure 12 of Embodiment #2, which corresponds to Figures 11 and 12.

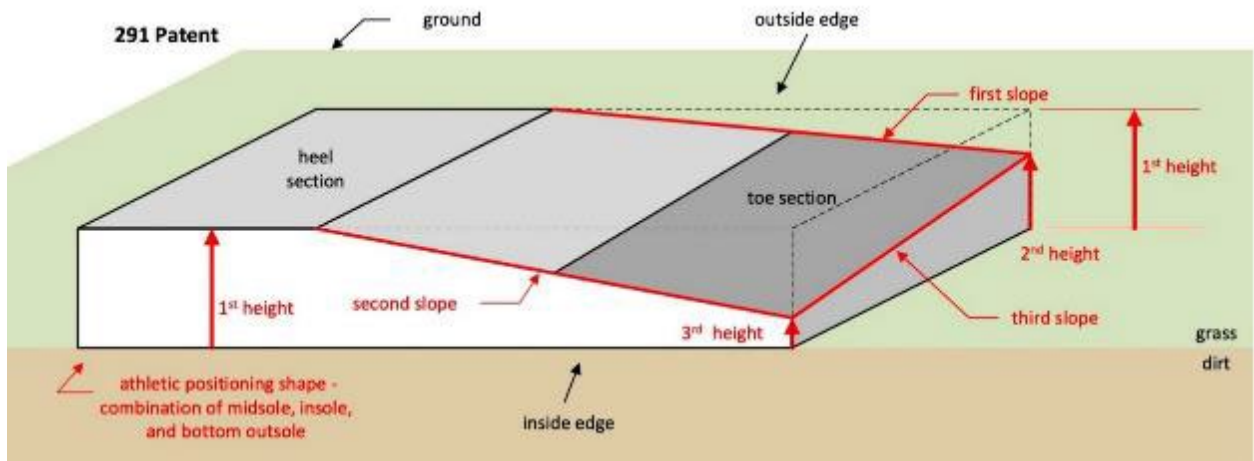
234. If the slope of Figure 9 did not extend the length of the sole (e.g., heel to toe) there would be something above the upper surface 46, like the support surface 63 of Figure 12. The upper right corner has the same height along the entire length of the foot platform of Figure 9. At outer edge 49, the heel (where the first height is measured) and the toe (where the second height is measured) are at the same height, as is shown in the annotated version of Figure 9, below.



235. The following is a representative three-dimensional diagram of Embodiment #1 with annotations regarding the limitations of claim 1.



236. The following is a figure representative of an embodiment of claim 1 with annotations of claim limitations.

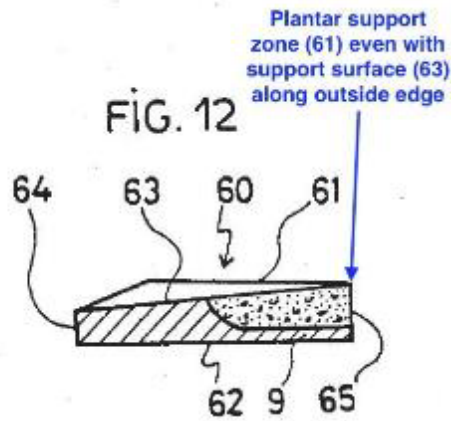


237. A visual comparison between the above two figures clearly shows that Durfour's Figure 9 embodiment does not include: (1) a first height that is uniform at the heel's inner and outer edges; (2) a second height that is less than the first height and, as such, does not include a first slope; and (3) does not include a second slope based on a different in height on the inner edge of the sole.

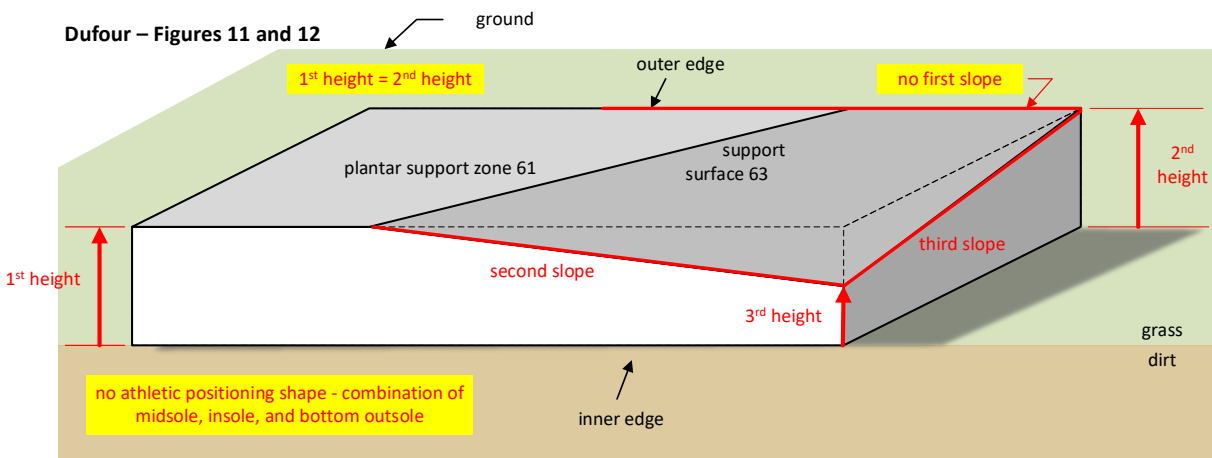
Embodiment #2

238. In Fig. 12, plantar support zone 61, where the back of the foot rests, is higher than support surface 63 near to the inside edge of the shoe (64). A POSITA would understand that at the outside edge of Fig. 12 (65), the support surface 63 is at the same height as plantar support zone 61. Thus, at the outside of the sole (65) where the little toe sits, the toe section of the embodiment shown in Figure 12 is at

the same height as the heel section. This can be seen at the upper right-hand corner of Fig. 12.



239. The following is a representative block diagram of the Dufour Figures 11 and 12 embodiment with annotations of claim 1 limitations.



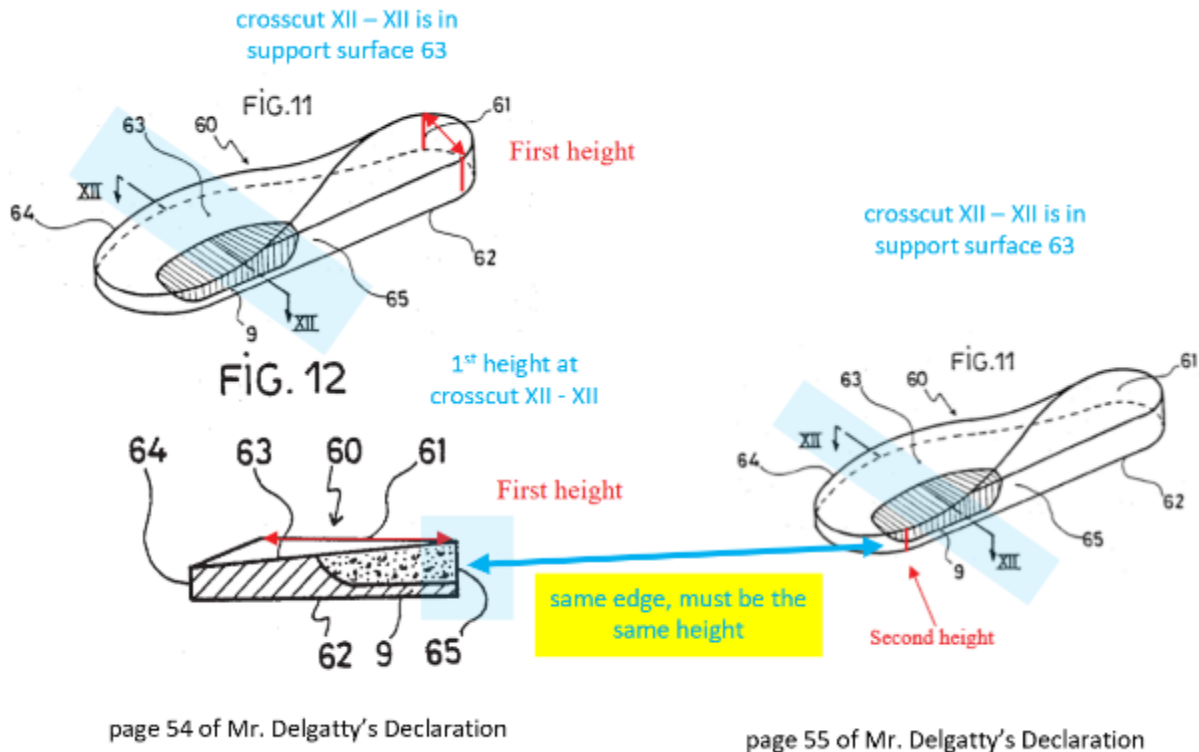
240. As can be seen from the figure above, support surface 63 angles upwardly. As in Figure 12, the support surface 63 rises from the inside edge of the sole until it reaches the upper, outer edge of the sole, at the same height as the plantar

support zone 61. It is the same height all along the outer edge of the support surface 63 and plantar support zone 61, from the front to the back of the sole.

241. The second height is determined at the front outer edge of the of the shoe. Because the front outer edge of both the support surface 63 and plantar support zone 61 have the same height from the toe to the heel of the shoe, the second height is the same as the first height. A POSITA would understand from this that Figures 11 and 12 of Dufour do not disclose a first height greater than a second height.

242. As such, both embodiments (Fig. 9 and Fig. 12) show that the outer edge of the sole near the heel of a foot has the same height as the outer edge of the sole near the toes of a foot. Thus, the first and second heights in both embodiments are the same.

243. Petitioner's expert's own annotations show that the first height is equal to the second height.



244. As shown above, on page 54 of his declaration, Mr. Delgatty labeled the outer edge 65 of Figures 11 and 12 of Dufour as having the first slope. Then, on page 55 of his declaration, he labels the same outer edge 65 in Figure 12 only as having the second height. Thus, his own annotations show that there is only one height on the outer edge 65.

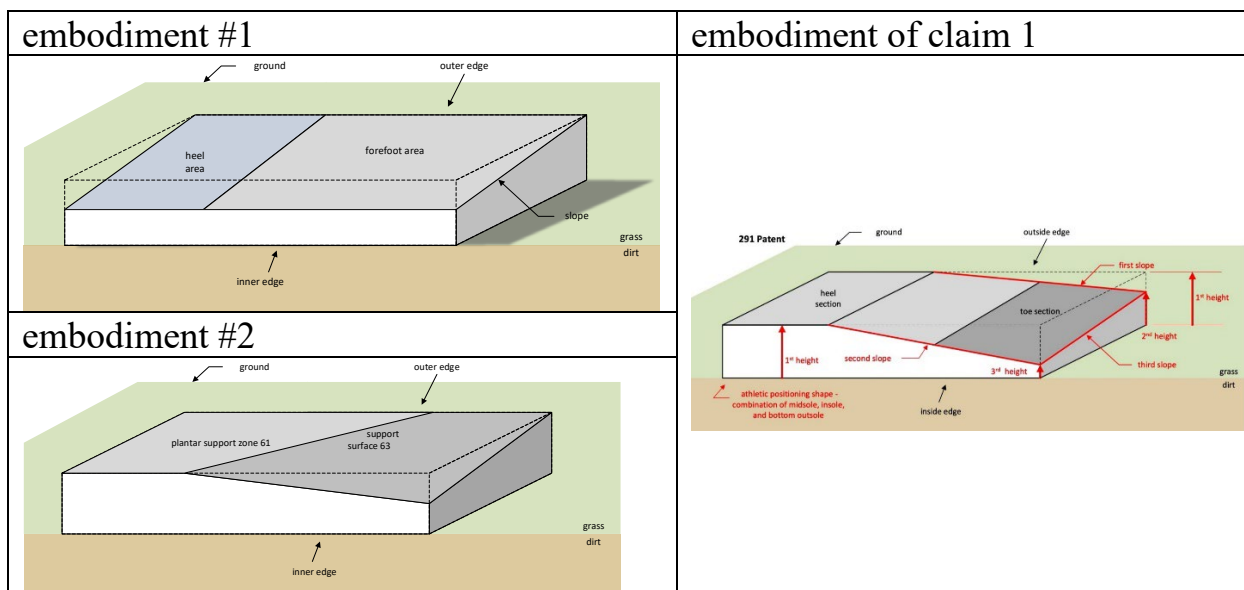
Combining Embodiments Would Not Have Been Obvious

245. To a POSITA, these two separate embodiments (as well as any other embodiments in the reference with different slopes) of Dufour are each unique and Dufour provides no discussion on how its various embodiments might be combined.

246. The following table summarizes how different each embodiment is with respect to the claims.

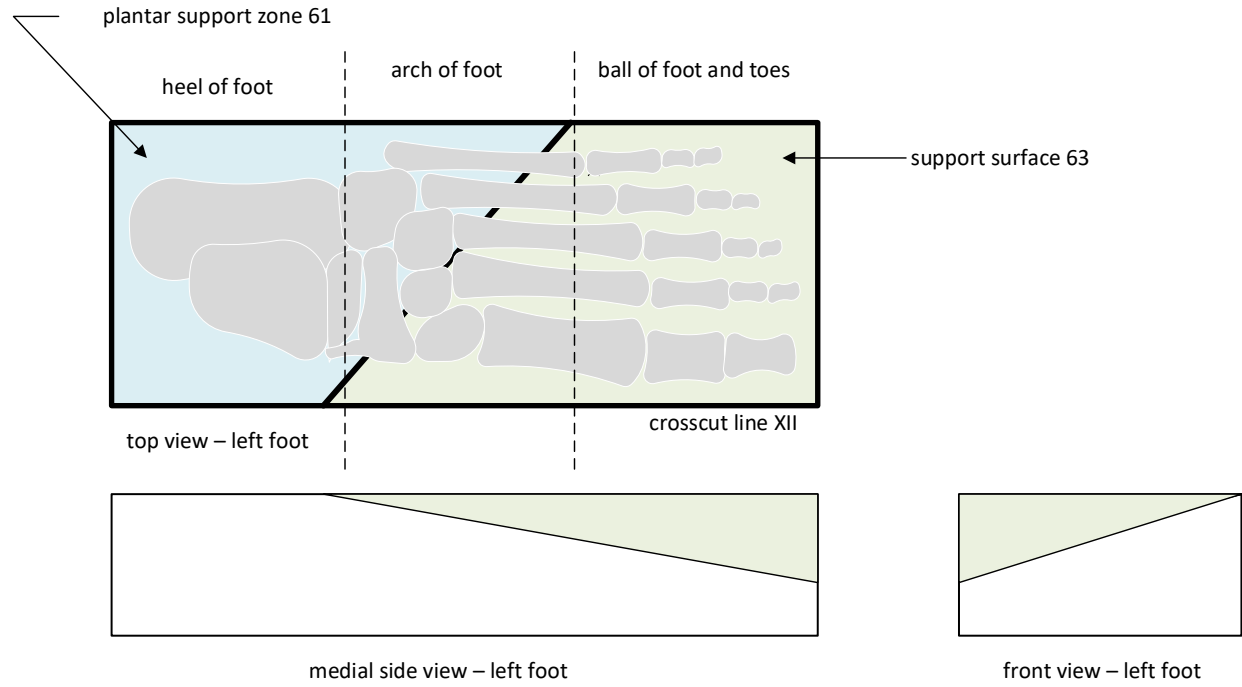
claim element	embodiment #1	embodiment #2
first height	no	yes
second height	no	no
third height	yes	yes
first slope	no	no
second slope	yes	yes
third slope	no	yes

247. The following is a side-by-side comparison of the embodiments of Dufour with the embodiment of claim 1.

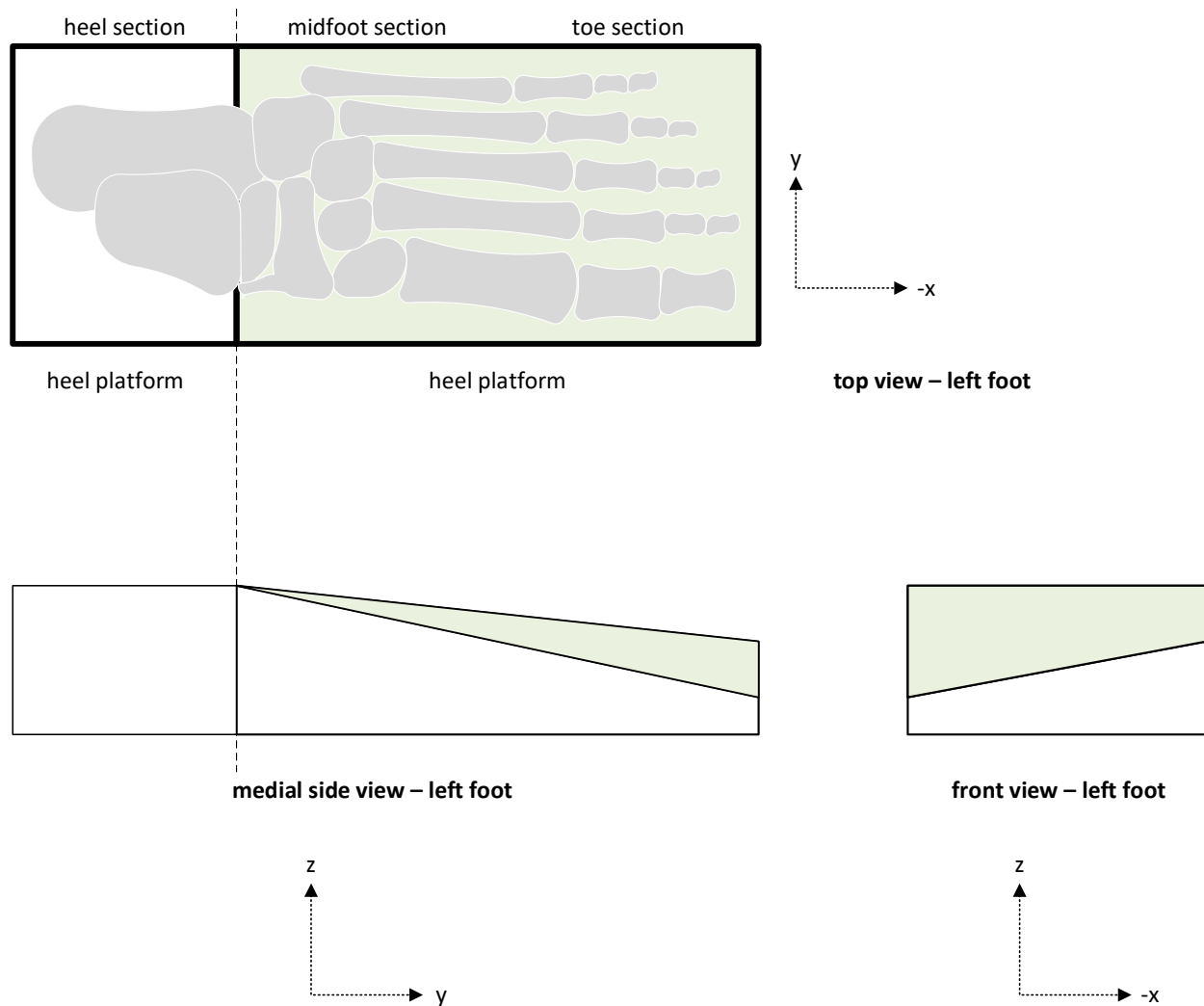


248. In addition to the above, I created medial side view of Figures 11 and 12, reproduced below, which show that the inner edge has no slope in the plantar

support section 61, has a slope in a portion of the support surface 63, and then no slope in the remainder of the support surface 63.



249. The sole of Dufour is a stark contrast from the athletic positioning shape as claimed, in part, in claim 1 of the '291 patent, and as shown below. The figures below include a top, medial side, and front views for a left foot of an athletic positioning shape that is based on Figures 8 – 10 of the '291 patent.



250. Comparing the above sets of figures, a foot is clearly supported differently by the sole of Dufour than by the sole of claim 1. With only two sections of Dufour a line runs at an angle underneath the arch of the foot, which would most likely create a good bit of discomfort.

251. The sole of Dufour would also put the arch, ball of foot, and toes at an unusual angle since the outer edge of the sole is of a fixed height its entire length

and the support surface is angled downward towards the toes along the delineation line between the plantar support zone 61 and the support surface 63.

252. The athletic positioning shape of claim 1 has the heel of the foot supported by the heel section and a combination of the mid-foot section and toe section supporting the rest of foot. There is a gentle transition between the heel and forefoot sections, thus no line to cause discomfort as in the Dufour sole. With both the inner and outer edges of the forefoot sloping downward towards the toes, the foot is well support without creating an unusual position like the sole of Dufour.

253. Based on the foregoing, it would be apparent to a POSITA that claim 1 is not obvious in view of Dufour and that combining embodiments of Dufour would not make sense.

254. To a POSITA, Dufour is solving different problems than the '291 patent. Dufour is addressing the problems of “providing comfort on the front foot when rolling out” and of “creating a better golf stance and swing”.

255. Dufour’s solution to the first problem is to include a softer material on the outer edge of a sole, which can be in the forefoot or from heel to toe.

256. Dufour’s solution to the second problem is to use a “wedge” that runs the length of the shoe of Figures 8-10, and 15, or is just included in the support surface 63 of Figures 11 and 12.

257. In contrast, the invention of claim 1 solves their problem of “putting an athlete in a better athletic position without promoting pronation or supination” via an athletic positioning shape. To a POSITA, it would be understood that, while a golf stance is a subset of an athletic position, the two dimensional weight force shifting of a wedge and softer material of the outer edge of Dufour does not teach or suggest the three dimensional weight force shifting of an athletic positioning shape that includes a heel platform of a uniform height and an angled support platform that includes three slopes as claimed in claim 1.

258. Based on the foregoing discussion, the table, and the side-by-side comparison a POSITA would understand that it would require a substantial redesign of Dufour to produce the embodiment of claim 1. As such, a POSITA would not find claim 1 obvious in view of Dufour.

2. It Would Not Have Been Obvious to Combine Dufour with Kim in the Manner Suggested by Mr. Delgatty and the Combination Still Does Not Meet the Claims.

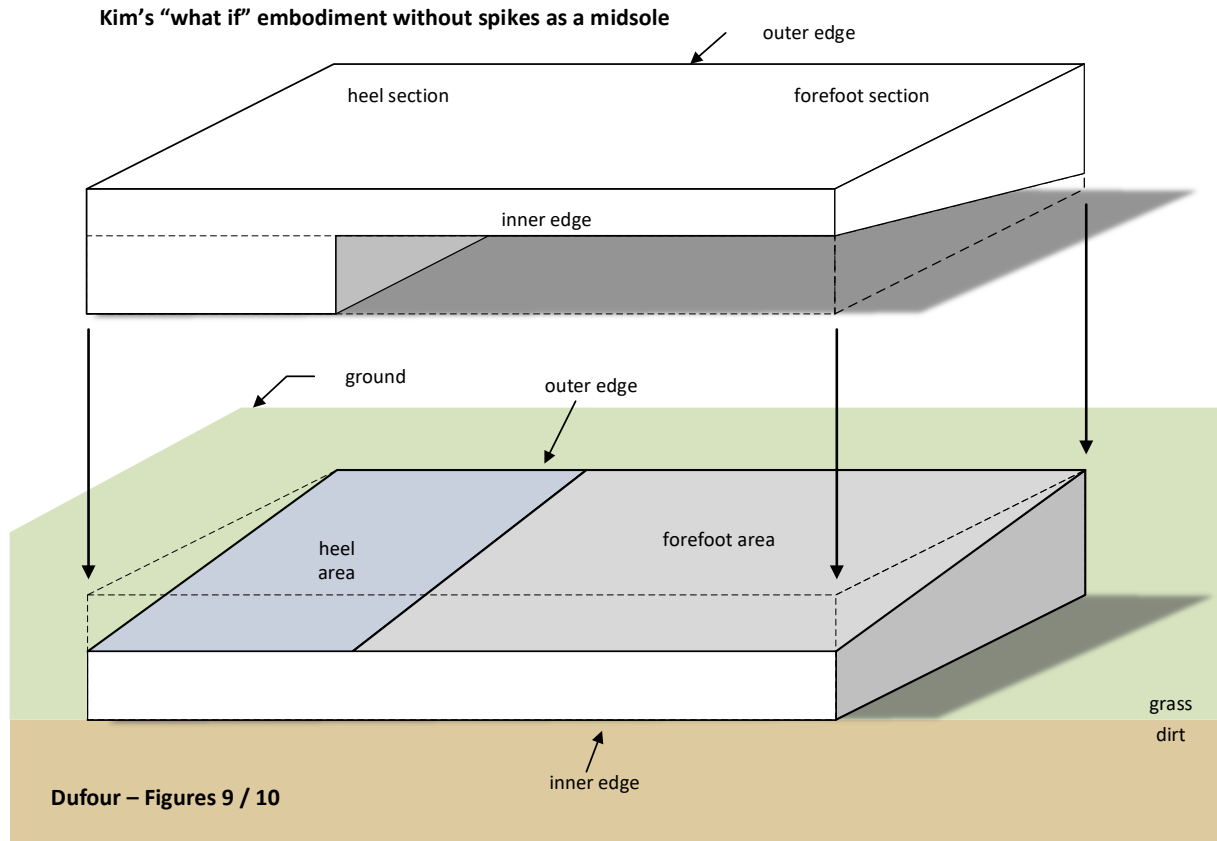
259. Mr. Delgatty acknowledges that Dufour does not disclose a golf shoe with a midsole or an insole. Thus, he is relying on the sole of Dufour as a bottom outsole with respect to claim 1. As the following figures illustrate, a combination of Kim and Dufour as suggested would make no sense to a POSITA.

260. As discussed above, Kim discloses two embodiments: a primary embodiment and a “what if” embodiment. As discussed above, Mr. Delgatty is treating the intermediate sole of Kim as a midsole. The intermediate sole is the part of Kim’s outsole that does not include the spikes. The spikes for the outer sole of Kim’s outsole.

261. Mr. Delgatty relied on two embodiments of Dufour: Figure 8-10 and Figures 11 and 12. The following four figures represent the primary embodiment of Kim without the spikes and the “what if” embodiment without the spikes combined with the two embodiments of Dufour.

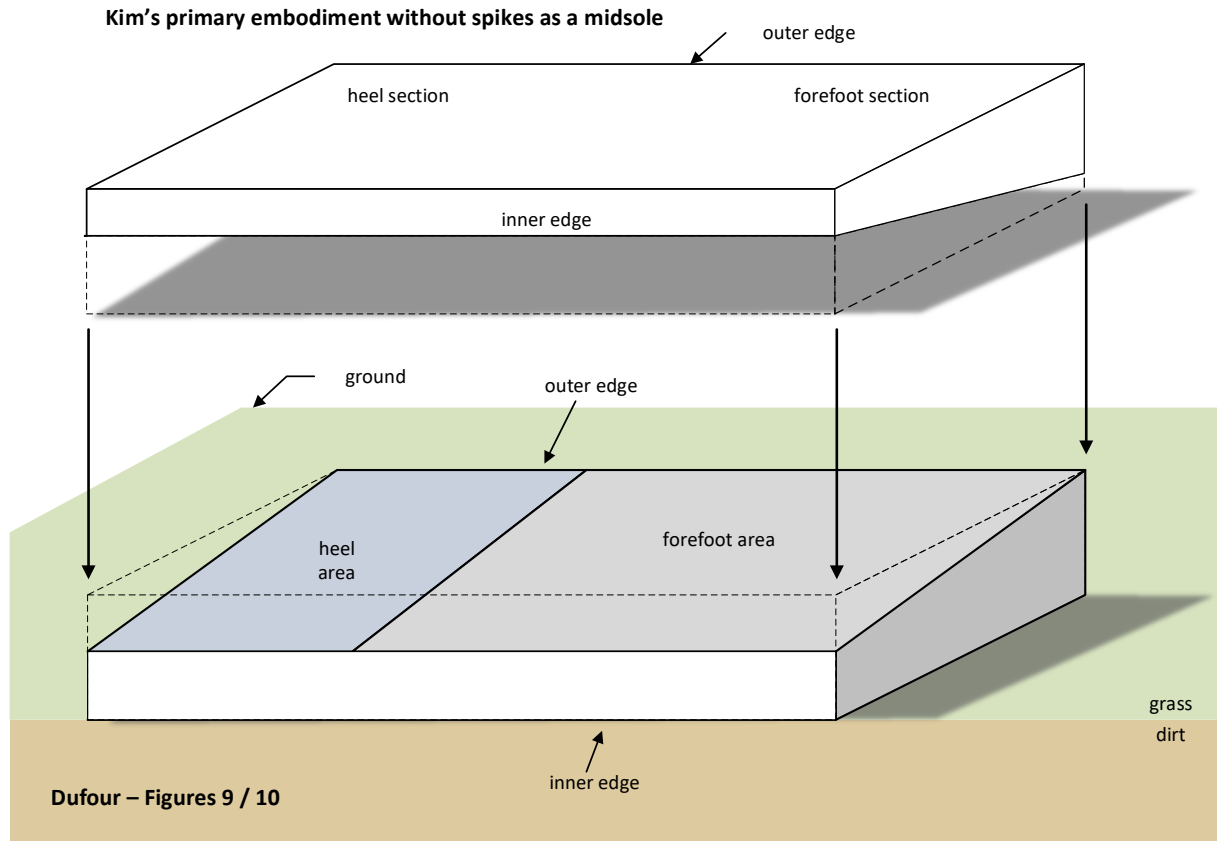
262. To demonstrate how non-obvious it is to combine the various embodiments of a “midsole” of Kim with the various embodiments of the “outsole” of Dufour to produce the sole of claim 1, I created the following series of figures. The series of figures shows a block diagram of the intermediate sole for the primary embodiment of Kim with respect to the various embodiments of the sole of Dufour. The series of figures also shows a block diagram of the “what if” sole for the primary embodiment of Kim with respect to the various embodiments of the sole of Dufour.

263. The following diagram shows the “what if” intermediate sole of Kim (the outsole 10 of Kim without the spikes 11) and the sole of embodiment #1 of Dufour represented in block form.



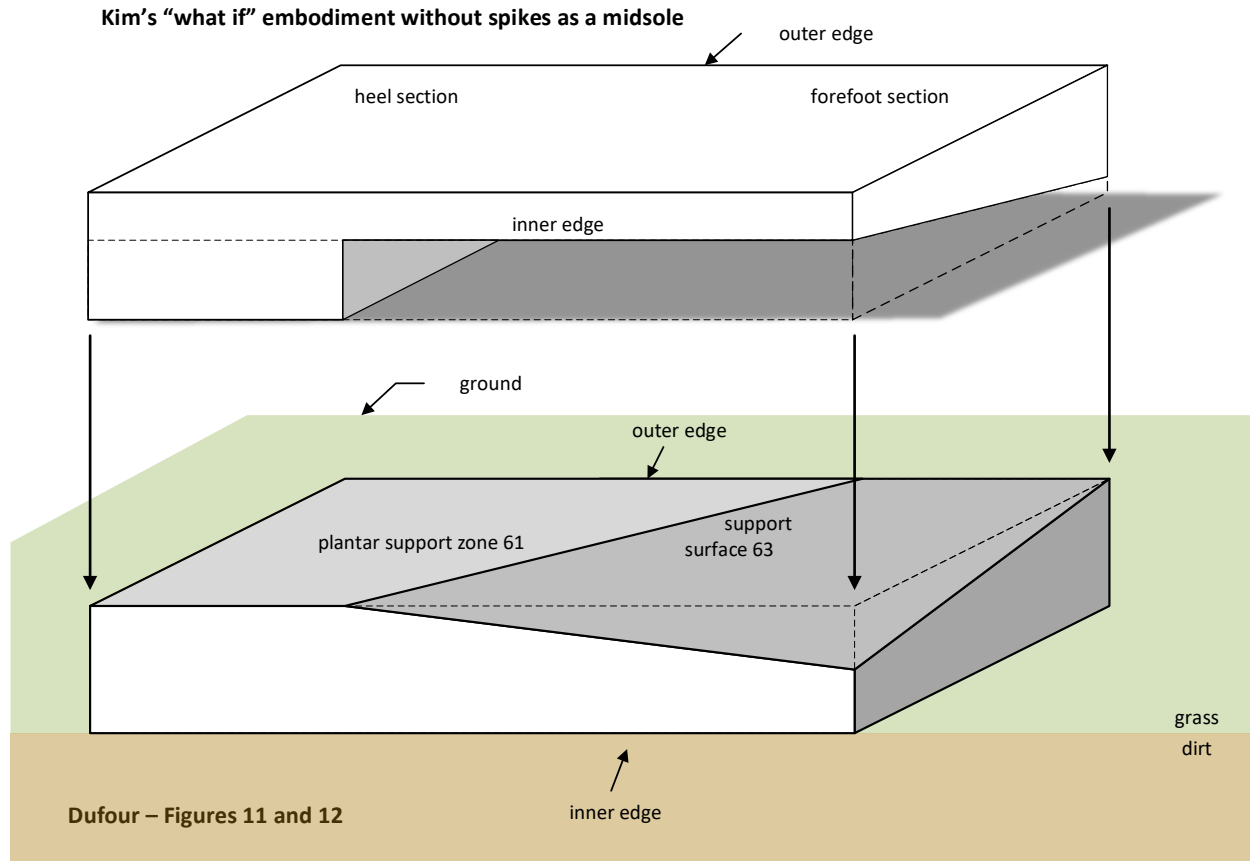
264. Just looking at the above figure, it is near impossible (not just far from obvious) as to how a POSITA would combine the intermediate sole of the “what if” embodiment of Kim with embodiment #1 of Dufour to produce the sole of claim 1.

265. The following diagram shows the primary embodiment intermediate sole of Kim (the outsole 10 of Kim without the spikes 11) and the sole of embodiment #1 of Dufour represented in block form.



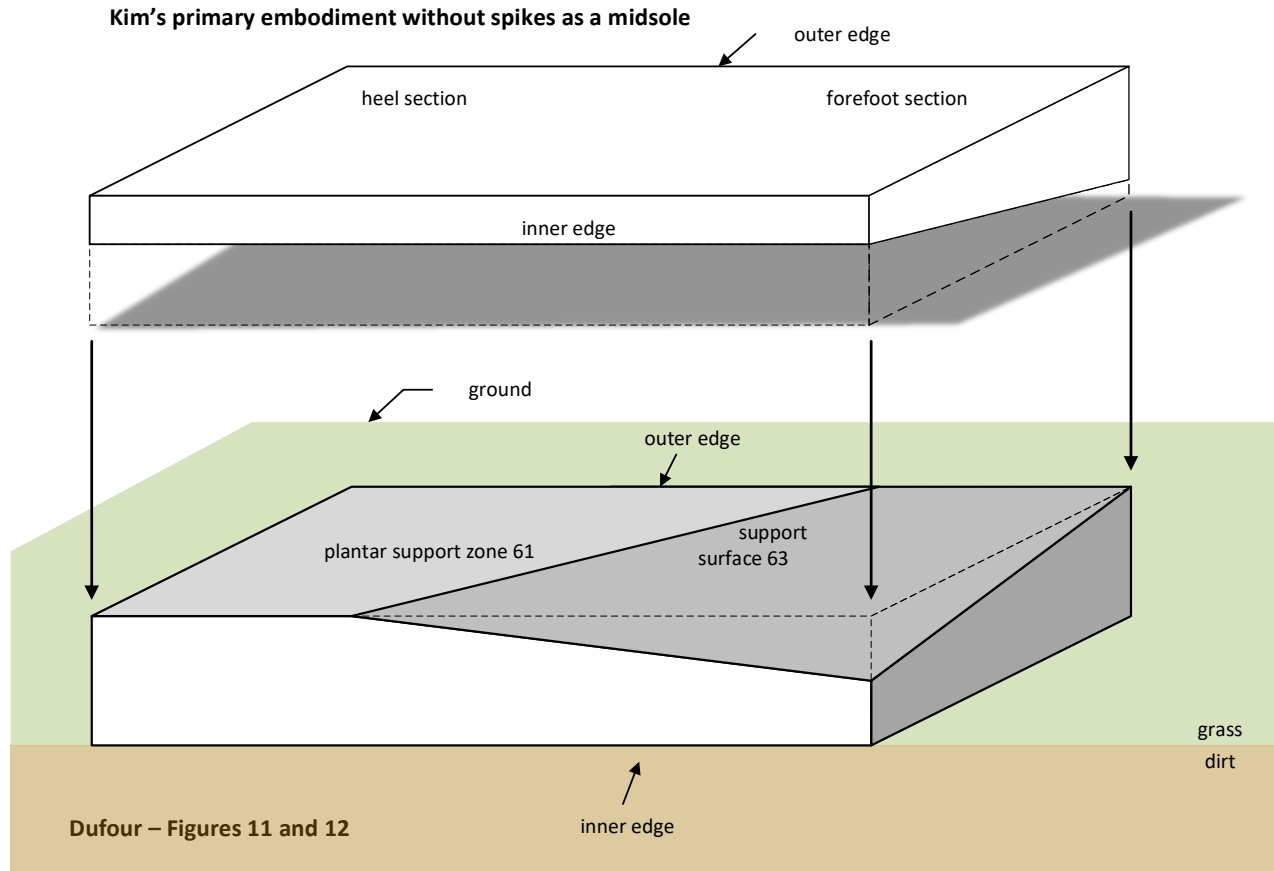
266. Looking at these figures, it would be readily apparent to a POSITA that a combination would yield a box with no slopes or changes in heights, which does not render the claims obvious.

267. The following diagram shows the “what if” embodiment intermediate sole of Kim (the outsole 10 of Kim without the spikes 11) and the sole of embodiment #2 of Dufour represented in block form.



268. Just looking at the above figure, it is near impossible (not just far from obvious) as to how a POSITA would combine the intermediate sole of the “what if” embodiment of Kim with embodiment #2 of Dufour to produce the sole of claim 1.

269. The following diagram shows the primary embodiment intermediate sole of Kim (the outsole 10 of Kim without the spikes 11) and the sole of embodiment #2 of Dufour represented in block form.



270. Just looking at the above figure, it is near impossible (not just far from obvious) as to how a POSITA would combine the intermediate sole of the primary embodiment of Kim with embodiment #2 of Dufour to produce the sole of claim 1.

271. Based on the foregoing, it is clear that Mr. Delgatty's declaration does not show that claim 1 is obvious in view of Dufour and Kim. As reviewed above, Mr. Delgatty's declaration shows just how non-obvious claim 1 is in view of Dufour and Kim.

3. All Dependent Claims are Patentable Over Dufour and Kim.

272. Claims 2-5 depend from claim 1. Claim 1 is patentable over Dufour in view of Kim for the reasons explained above. Accordingly, by their dependency on claim 1, claims 2-5 are also patentable over this ground.

D. Ground 3: The Combination of Rubin and Kim Does Not Disclose or Render Obvious Claim 1.

273. Rubin is substantially duplicative of Kim and, as such, the arguments presented here are substantially similar to the arguments with respect to Kim.

274. Rubin discloses that its golf shoe is designed to aid the golfer in assuming a proper stance so that during the swing the golfer will pivot in a proper manner. EX1007, 1:7-10.

275. To create a shoe design based on Rubin, especially one that would be an obvious iteration, a POSITA would first need to understand what Rubin is teaching. As part of the understanding, a POSITA would determine what was the design objective(s) of Rubin and would learn that there were two design objectives: (1) keep the foot parallel to the ground when on hard ground and (2) tilt the foot inward on soft ground. These are the same objectives as Kim.

276. As another part of the understanding, it would be reasonable for a POSITA to create his/her own drawings like the ones herein.

277. As yet another part of the understanding, a POSITA would learn how Rubin achieves its design objectives in the embodiments of Rubin. A POSITA would learn that golf shoe of Rubin is designed so the ground and weight forces control whether a foot tilts inward or not as result of the spikes penetrating the ground. The shoe itself does not control the tilting as discussed in the overview of Kim section.

278. With an understanding of Rubin, a POSITA would know:

- Rubin had different design objectives than the current design objectives for the embodiment of claim 1 (i.e., design a shoe that puts an athlete in a better athletic position)
- the embodiments of Rubin look very different than the embodiments of claim 1, and
- there is no obvious way to modify Rubin to achieve the current design objectives as discussed in detail below.

279. Rubin is also like Kim, in that includes two drawings (Figure 1 and Figure 3) that do not show cleats in the heel and shows the heel to have a block shape, which corresponds to a “what if” embodiment. Still further like Kim, the other drawings of Rubin Figures 2 and 4 and the specification support different length cleats/spikes and different inner to outer thicknesses of the sole that extend the length of the sole (i.e., heel to toe), which corresponds to a primary embodiment.

280. Petitioner acknowledges that Rubin does not disclose a golf shoe with a midsole or an insole. Thus, Petitioner seeks to combine Rubin with Kim because, according to Petitioner, Kim expressly discloses a midsole and an insole.

281. As mentioned with respect to Ground 2, Kim mentions an insole once in paragraph 28, but does not mention a midsole or mid-sole. Kim does mention in paragraph 29 that its outsole 10 includes an intermediate sole and an outer sole. As discussed above, Kim discloses that the spikes are the outer sole and the rest of the outsole 10, above spikes, is the intermediate sole.

282. In ground 1, Mr. Delgatty referred to the intermediate sole as both the mid-sole and the bottom outsole with respect to his analysis of claim 1. Now he seems to be inferring that the intermediate sole is just a midsole. The intermediate sole cannot be both.

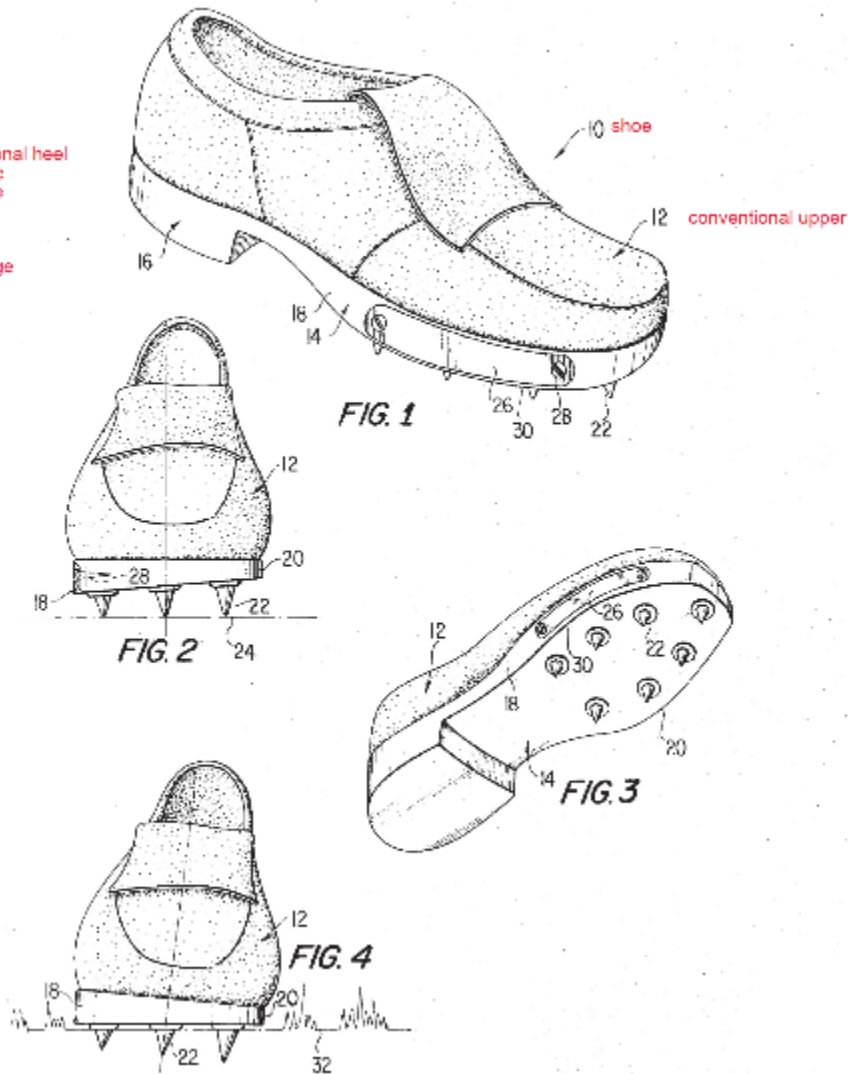
1. Rubin Does Not Disclose a Second Height Greater than a Third Height.

283. Rubin discloses a golf shoe with variable thickness in the sole and variable length on the cleats, which, like Kim, are inversely proportional. Rubin's shoe is depicted in arrangements that show the shoe on a hard surface and soft ground. Regardless of whether Rubin's shoe is on a hard surface or soft ground, Rubin's disclosure is insufficient to disclose or render obvious various limitations of the independent claims.

284. Rubin discloses a golf shoe with variable thickness in the sole and variable length on the cleats, which lengths are inversely proportional to the thickness of the sole. As described by Rubin, “[t]he outer side 18 of sole 14 extends downwardly from the shoe upper 12 to a lower elevation than the inner side 20 of [the] sole.” EX1007, 3:9-11. Figures 1 – 4 of Rubin, with annotations, are shown below.

285. Rubin discloses that the sole 14 includes cleats 22 that extend along the bottom of the sole 14 adjacent [to] both the outer side 18 and inner side 20 of the sole 14. EX1007, 3:24-29.

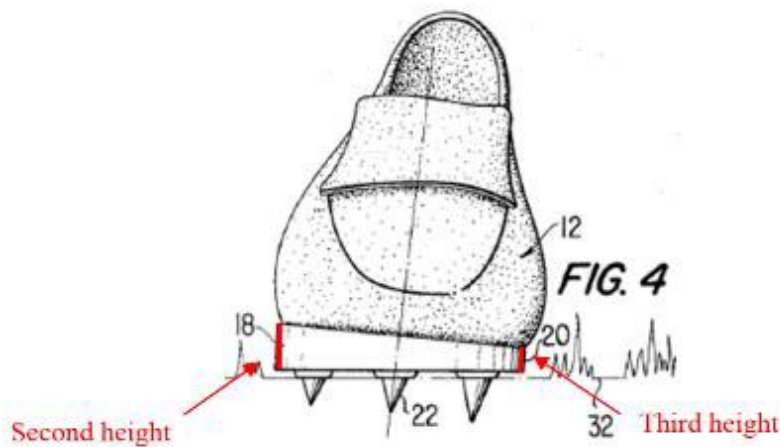
14 - sole
16 - conventional heel
18 - outer side
20 - inner side
22 - cleats
26 - plate
28 - screws
30 - lower edge



286. Rubin further discloses that cleats 22 adjacent the outer side 18 of the sole 14 are smaller than the cleats adjacent the inner side 20 of the sole 14 by an amount approximately equal to the difference in elevation between the outer side 18 and inner side 20 of the sole 14 so that when the wearer walks on a nonplaying surface, such as a concrete deck 24 as illustrated in FIG. 2, the foot of the wearer will be substantially level. A centrally located cleat 22 at the toe portion of sole 14

should be approximately one-half the difference of the lengths of the cleats adjacent the outer and inner sides of the sole 14. EX1007, 3:24-41.

287. In seeking to show that Rubin discloses a second height greater than a third height, Mr. Delgatty relies on the following annotated perspective view of Fig. 4 of Rubin.



288. In identifying the “second height” and “third height,” Mr. Delgatty points only to the solid portion of the outsole, excluding the height of Rubin’s spikes. He is incorrect to exclude the height of Rubin’s spikes.

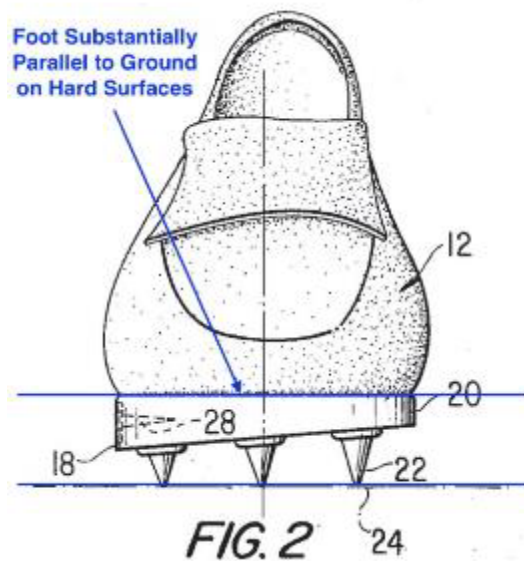
289. The '291 patent does not contemplate only relying on the outsole height, absent the spikes and other components of the athletic positioning shape. Instead, as I explained above in detail with regard to Kim, the claims of the '291 patent measure the three heights of the athletic positioning shape by including the

insole, midsole, and bottom outsole. These three heights measure distances from the bottom of the cleats to the top of the insole, not some subset of that height.

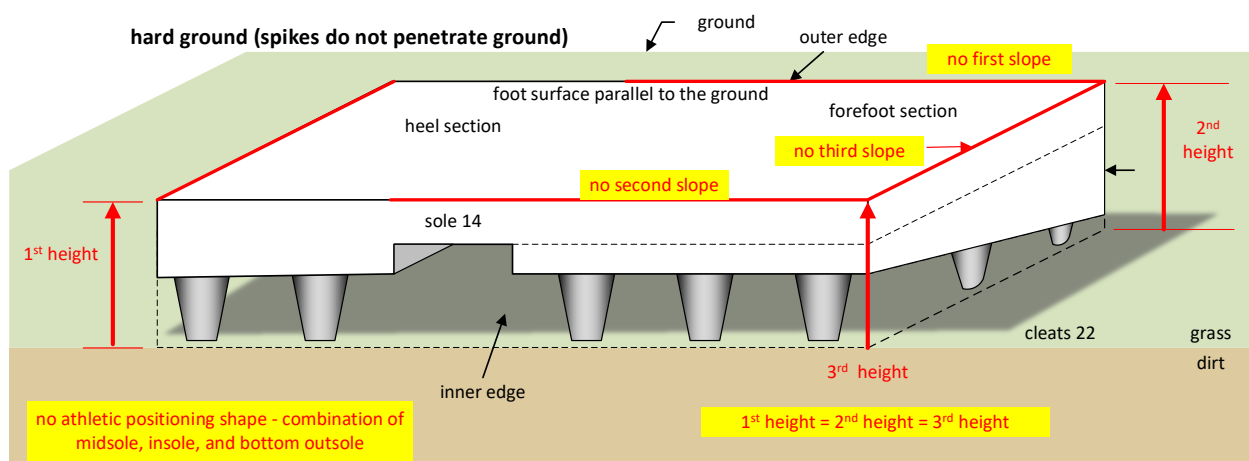
290. In addition, the '291 patent's specification makes clear that spikes are considered part of the bottom outsole. *See supra*, § VII.A.1; EX2008, 21:22-26, 51-55, 28:16-19, 28:48-50 (claimed shoe's outsole includes sport specific bottoms which may be a spike or cleat pattern for golf). A POSITA would understand that because the cleats form part of the outsole, they must be included in any measurement of the height of the outsole.

291. Since Mr. Delgatty is using Rubin to provide an outsole, the cleats that touch the ground are part of the outsole. A POSITA would understand when Rubin's cleats are included, the difference between the second height and third height no longer exists. As described above, the cleats on the inside of the shoe are shorter than the cleats on the outside of the shoe, whereas the sole is thicker on the inside and thinner on the outside of the shoe, to maintain a consistent height across the shoe. EX1007, 3:29-34. This relationship between the cleat lengths and the sole thickness differences allows the wearer's foot to be substantially level when on hard ground.

292. This is confirmed by Figure 2 of Rubin, which shows the top of the outsole being parallel to the ground.

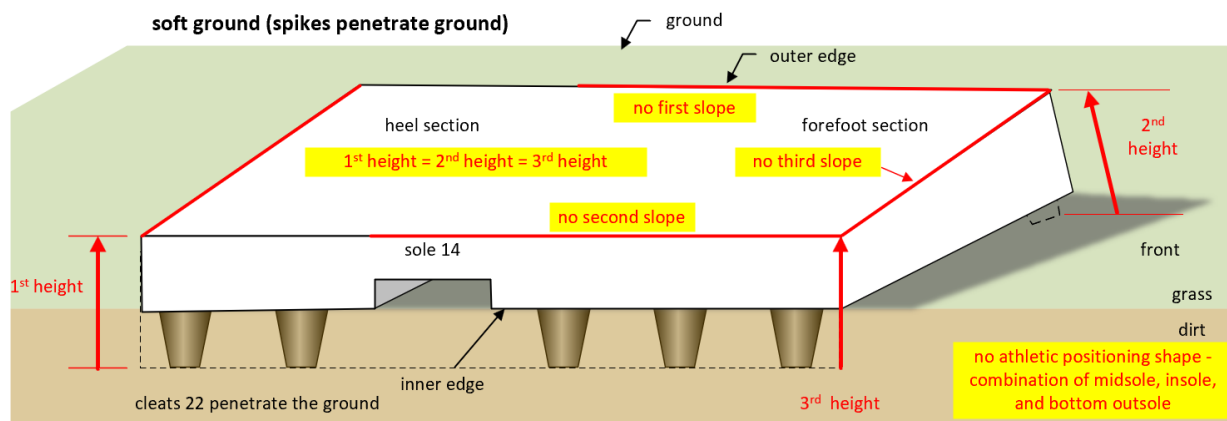


293. In short, Rubin consistently describes how the foot of the golfer wearing its shoe will be substantially level, i.e., parallel to the ground. This can be seen in the following figure, which represents Rubin's shoe, identifying position of the reference, first, second, and third slopes.

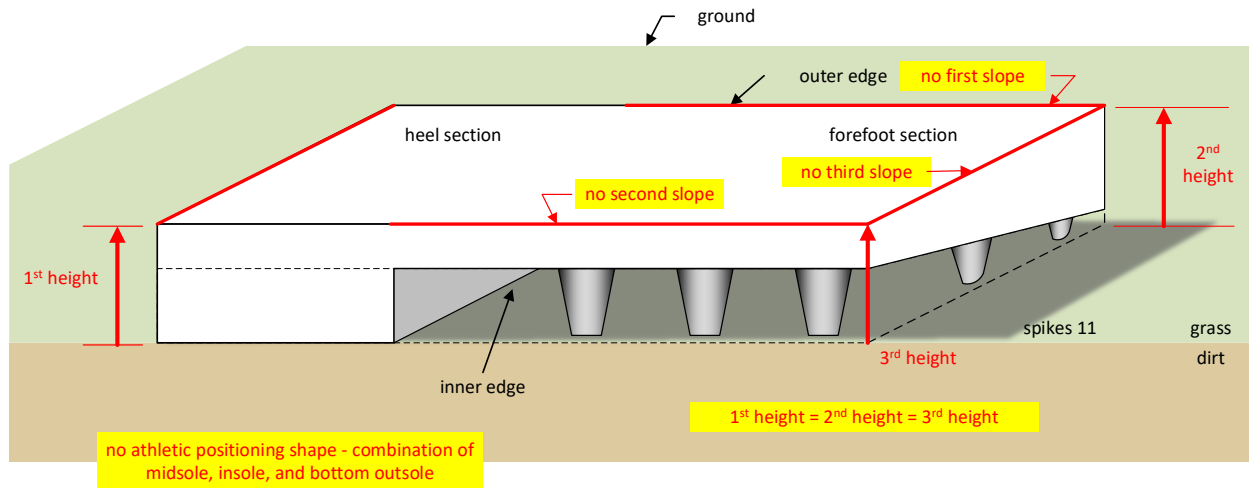


294. As shown in the figure above, the heights at the front outer and inner edges of the outsole are the same. Thus, the second and third heights are the same. Accordingly, Rubin fails to disclose a second height greater than a third height.

295. Nothing changes about Rubin's shoe with respect to the claims when it is on soft ground. As I explained in detail above in the overview of Rubin, the heights in the claims remain the same regardless of whether the shoe is on hard or soft ground. The block diagram below shows this is the case:

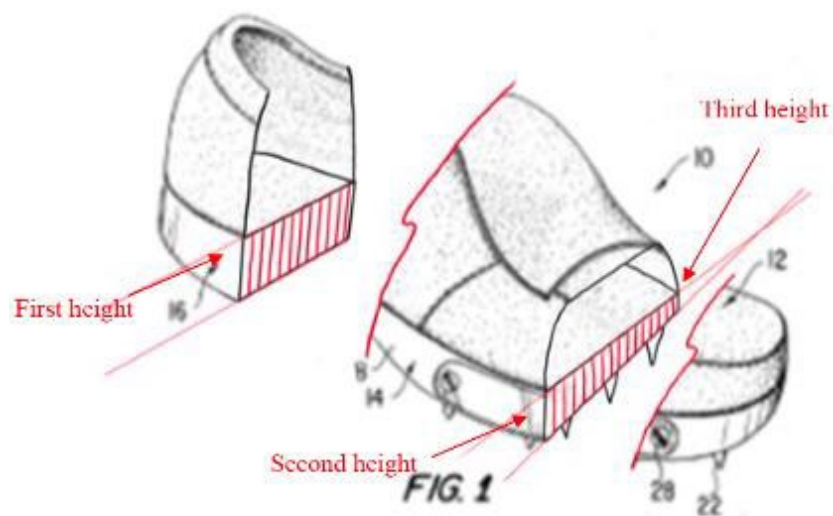


296. Finally, Petitioner's expert also relies on an interpretation of Rubin's Figure 1 that removes the cleats from the heel section. I explained this "what if" embodiment in detail above in the overview section of Rubin. The block diagram below represents the "what if" embodiment of Rubin and shows that even without spikes in the heel, Rubin would still have the same height at the inner and outer portion of the toe:



2. Rubin Does Not Disclose a First Height Greater than a Second Height.

297. In seeking to show that Rubin discloses a first height greater than a second height, Mr. Delgatty relies on the following exploded, annotated perspective view of Fig. 1 of Rubin, as well as unannotated versions of Figure 1.

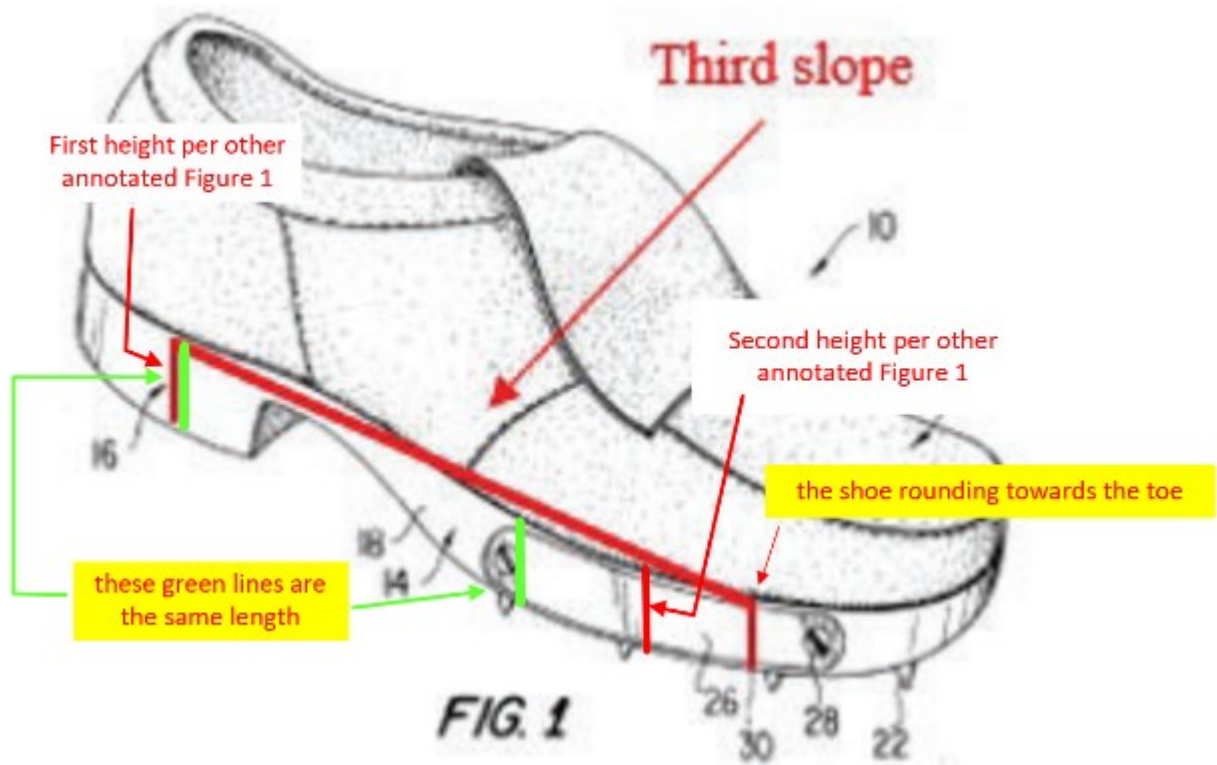


298. Mr. Delgatty states that, based on the above annotated figure, Rubin shows “the first height being greater than the second height.” EX1002 ¶102. He contends that a “POSITA would understand this to be true based on the relative sizes, dimensions and shape of the sole depicted in Rubin.” *Id.*

299. A POSITA would find this argument flawed for three reasons. First, Mr. Delgatty has misrepresented his annotations of Figure 1. Second, he leaves out critical components of the heights (i.e., the different length cleats and the correspondingly different thickness sole), rendering any comparison of the first and second heights meaningless. Third, Mr. Delgatty ignores Rubin’s disclosure that the upper surface of the outsole, where the foot rests, is substantially level.

a. Mr. Delgatty misrepresents his annotations.

300. In Figure 1 of Rubin, even without the cleats, the figure by itself does not show a first height greater than a second height.



301. In the above annotated Figure 1, Mr. Delgatty drew the third slope. He also drew the vertical red lines at the end of the third slope line but did not label them. If the vertical red lines are meant to illustrate the first and second heights on the outer edge of the sole without the cleats, then the second height is not in the same location as it was drawn in the above annotated figure 1.

302. I added where the second height was drawn in the dissected annotated version of Figure 1 above and it is in a different location than in the present annotated figure 1. Both representations of the second height are shown after the shoe starts to round towards the toe, which distorts the perspective view of heights.

303. I also added the vertical green lines, which illustrate the first height in the heel near Mr. Delgatty's marking of the first height and the second height of the forefoot before the shoe bends towards the toes. The green lines are of the same length, thus the first and second heights are the same even without the cleats. They are different as misrepresented by Mr. Delgatty.

304. Further, the red line I added to show Mr. Delgatty's first marking of the second height is the same length as the two green vertical lines added by Mr. Markison. Thus, with the first marking of the first and second height, Mr. Delgatty shows that they are the same height. They only change in the second annotated version of Figure 1 to show the third slope.

b. Mr. Delgatty omits key components of the heights

305. Regarding the omissions of the components of the heights, as described above, the claims of the '291 patent require that the first, second, and third height include the heights of all the parts that form each height: the midsole, insole, and bottom outsole. The specification of the '291 patent also clarifies that sports-specific bottoms, like cleats, are part of the outsole. *See id.*; Mr. Delgatty has only pointed to a single part of the outsole: the upper portion above the cleats and below the insole, which corresponds to the "what if" embodiment without the cleats. Mr. Delgatty's

choice to ignore the height added by the cleats to its identified “second height” appears to be an attempt to decrease its height relative to the first height.

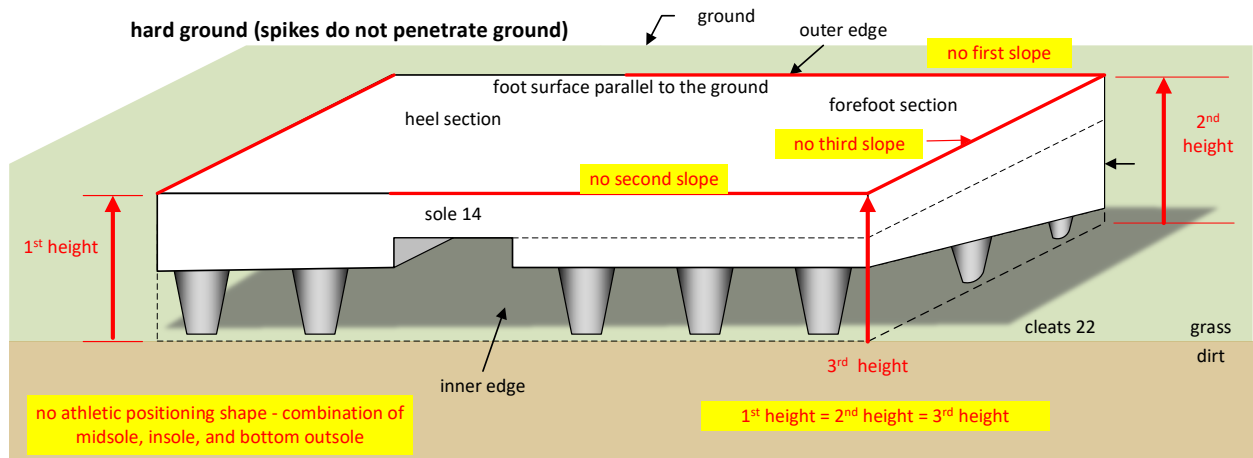
306. Furthermore, Mr. Delgatty ignores the height of the insole in its identification of the first and second heights. He even admits Rubin does not disclose an insole. Nevertheless, he makes no effort to show how the addition of the teachings of Kim to Rubin would impact the height of the insole and, therefore, the identified first and second heights.

307. Thus, Mr. Delgatty has failed to include the height of the cleats (which provide at least part of the outsole) and the insole, two components the ’291 patent contemplates as being included in each height. Without considering the cleats and the insole, it is impossible to accurately compare the first and second heights and thereby determine whether the first height is greater than the second height, as is required by claim 1. As such, Mr. Delgatty has not shown the combination of Rubin and Kim disclose or render obvious a first height greater than a second height.

c. Mr. Delgatty ignores Rubin’s disclosure that the top of the outsole is substantially level.

308. As I explained in detail above, the relationship between the length of the cleats and the thickness of the sole in Rubin create a sole that has a foot platform which is “substantially level” with the ground on hard surfaces. EX1007, 3:29-37.

309. A POSITA would understand from Rubin's disclosure that "the foot of the wearer is substantially level" that the heel section of the shoe is at the same level as the toe section of the shoe. This can be seen in the following figure, which represents Rubin's shoe, identifying where the reference, first, second, and third slopes are.



310. As I have shown in the figure above, the height of the heel section (where the first height is measured) is the same as the height of the front outer edge (where the second height is measured). If the heel were higher, the foot of the wearer would be inclined to the ground, not substantially level in relation to it. Thus, the POSITA would understand from Rubin's disclosure that the first height and the second height are the same on a hard surface, because the height of the heel and the toe are the same. Accordingly, Rubin fails to disclose a first height greater than a second height.

311. The relationship between the bottom of the cleats and the upper surface of the sole does not change even when the cleats penetrate the ground, as I have repeatedly explained. Accordingly, the height is not with respect to the ground, but with respect to the shoe itself. As such, a POSITA's understanding that the first height is not greater than the second height would remain unchanged.

3. Rubin Does Not Disclose a First Slope, Second Slope, or Third Slope, as Required by Claim 1.

312. As I have explained, the first and second heights in Rubin are the same, as are the second and third heights, regardless of whether the shoe is on a hard surface or dug into soft ground. Therefore, it does not matter whether the shoe is on a hard or soft surface, any line between the first height and the second height, i.e., a first slope, would be parallel to the bottom of the cleats and have no slope. Similarly, lines between the first height and the third height, i.e., a second slope, and between the second height and third height, i.e., a third slope, would be parallel to the bottom of the cleats and have no slope. Rubin therefore does not disclose the first, second, or third slopes required by claim 1.

4. It Would Not Have Been Obvious to Combine Rubin with Kim in the Manner Suggested by Mr. Delgatty and the Combination Still Does Not Meet the Claims.

313. Mr. Delgatty acknowledges that Rubin does not disclose a golf shoe with a midsole or an insole. Thus, he is relying on the sole of Rubin as a bottom

outsole with respect to claim 1. As the following figures illustrate, a combination of Kim and Rubin as suggested would make no sense to a POSITA.

314. As discussed above, Kim discloses two embodiments: a primary embodiment and a “what if” embodiment. As discussed above in Ground 2, Mr. Delgatty is treating the intermediate sole of Kim as a midsole. The intermediate sole is the part of Kim’s outsole that does not include the spikes. The spikes for the outer sole of Kim’s outsole.

315. Rubin has a similar primary embodiment and a “what if” embodiment. The following four figures represent the primary embodiment of Kim without the spikes and the “what if” embodiment without the spikes combined with the two embodiments of Rubin.

316. In my opinion, a POSITA would not have combined the very similar disclosures from Kim and Rubin to achieve a different shoe that meets the claims of the ’291 patent.

317. Like in Ground 2, Mr. Delgatty uses Kim for a “midsole” and an insole and uses Rubin solely thereafter, just like Dufour. The midsole of Kim is regarding the intermediate sole of the outsole 10, which is the outsole 10 less the spikes 11.

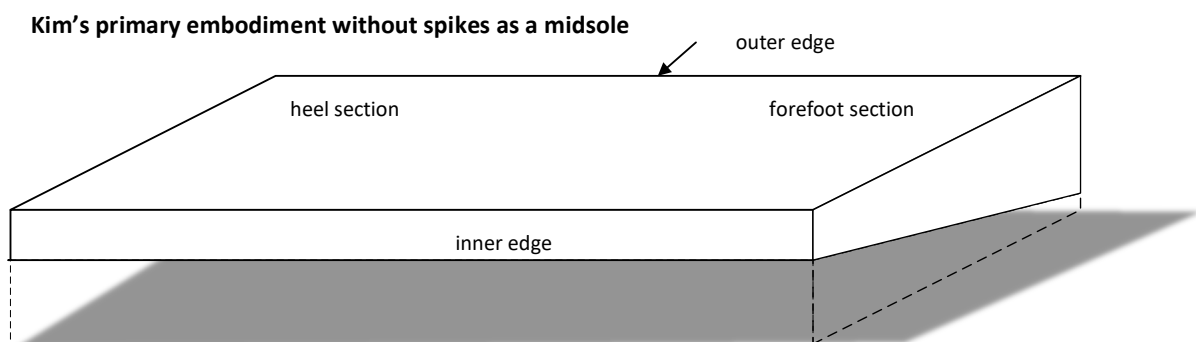
318. Just like with respect to Kim, Mr. Delgatty ignores the primary embodiment of Rubin and relies on the “what if” embodiment of Rubin.

319. A POSITA would find it hard to fathom a sole having a bottom outsole where the bottom outsole does not touch the ground. Yet, that is what Mr. Delgatty is stating and relying on in his analysis. He purposefully omits the cleats of Rubin to show a “bottom outsole”. This is even harder to accept when the ’291 patent clearly discloses that a specific bottom comprises one or more of a cleat pattern bottom, a baseball spike bottom, a basketball bottom, a tennis bottom, a golf bottom, an ice skate bottom, a ski boot bottom, a cross-trainer bottom, a miming shoe bottom, a walking shoe bottom, a dress shoe bottom and a snowboard boot bottom. EX1001, 9:47-52.

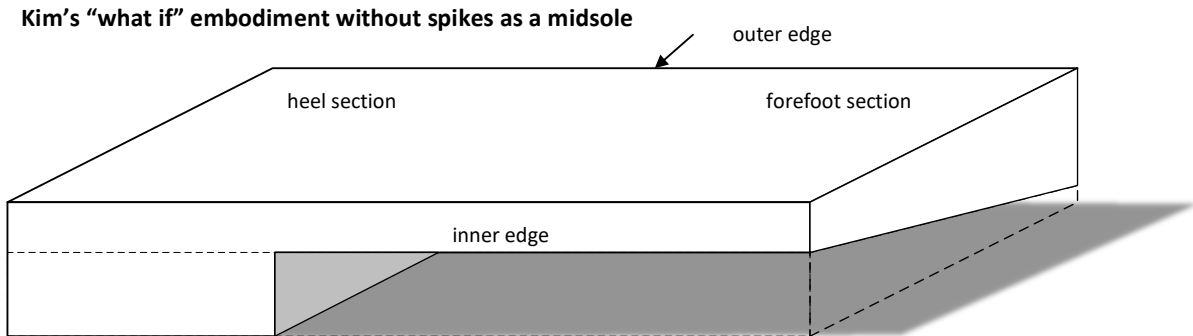
320. For this reason alone, Mr. Delgatty has failed to show that the combination of Rubin and Kim render claim 1 obvious.

321. To demonstrate how non-obvious it is to combine the midsole of Kim with the “bottom sole” of Rubin, I have created the following series of drawings.

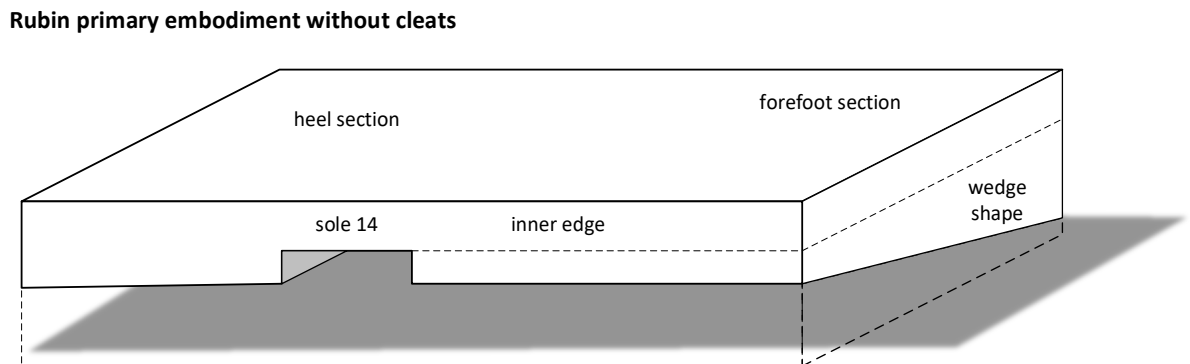
322. Without the spikes, the intermediate sole of Kim, in block form, would look like the following.



323. The “what if” embodiment stems from paragraph 46, where Kim postulates the slope and different length spikes could only be in the forefoot section of the outsole. Without the spikes, the intermediate sole of the “what if” embodiment of Kim, in block form, would look like the following.

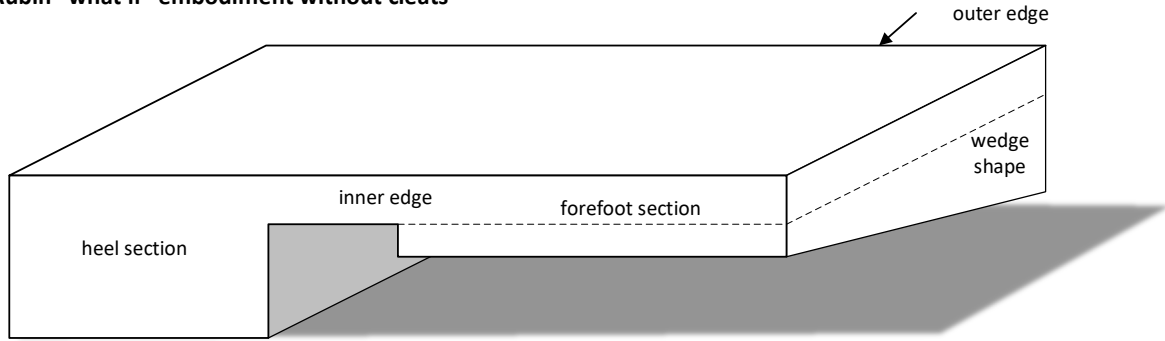


324. Without the spikes, the sole of Rubin, in block form, would look like the following.



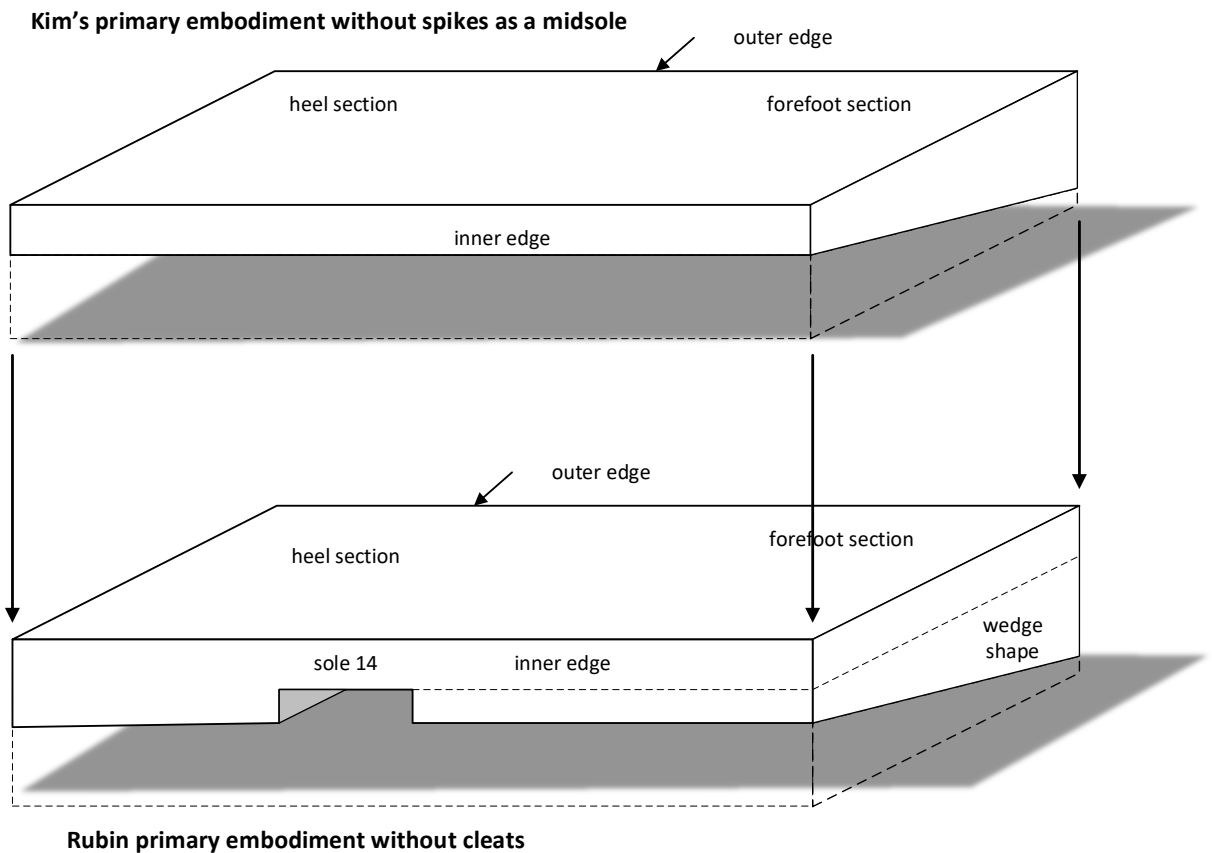
325. The “what if” embodiment of Rubin is based on interpreting figures 1 and 3 to mean that the heel does not includes cleats and that the heel of uniform height and a flat bottom. Without cleats, the “what if” sole of Rubin, in block form, would look like the following.

Rubin “what if” embodiment without cleats



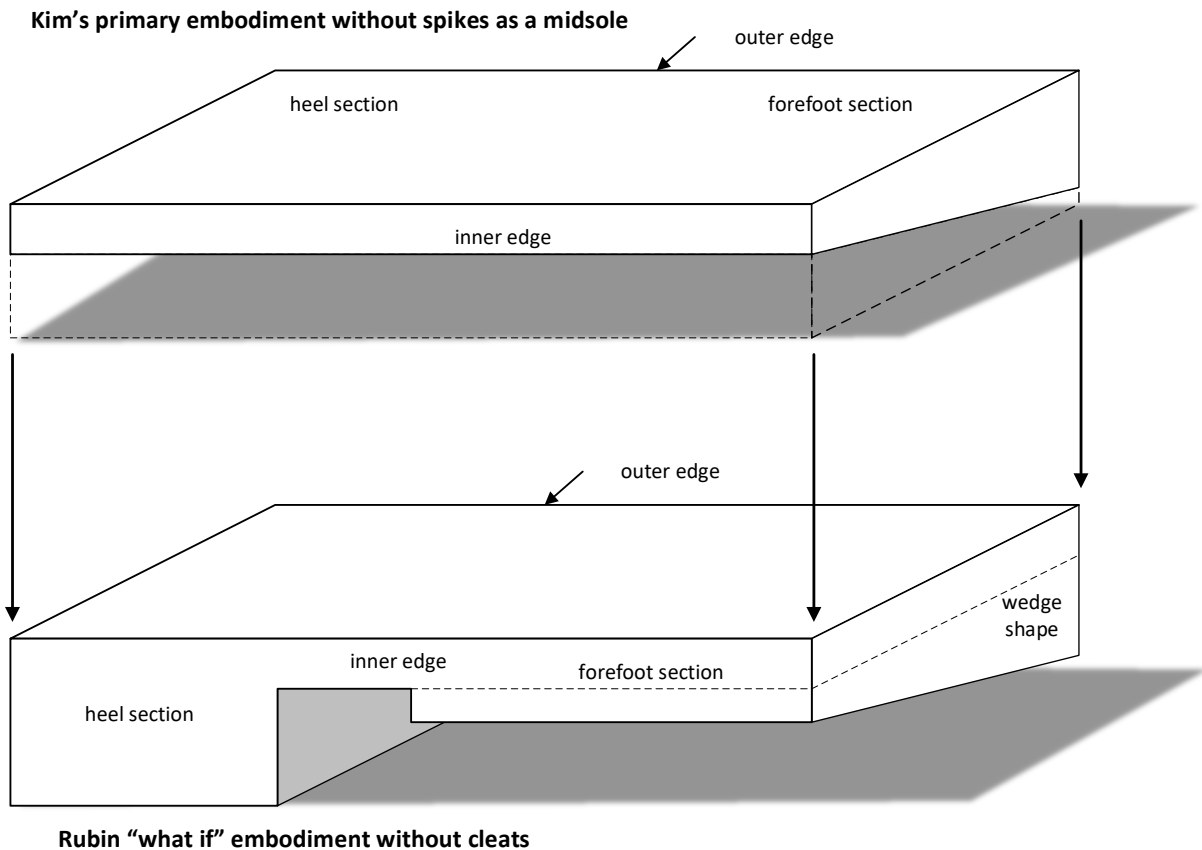
326. There are four possible combinations of the midsole of Kim with the sole of Rubin.

327. The first possibility uses the primary embodiments of both Kim and Rubin as shown below.



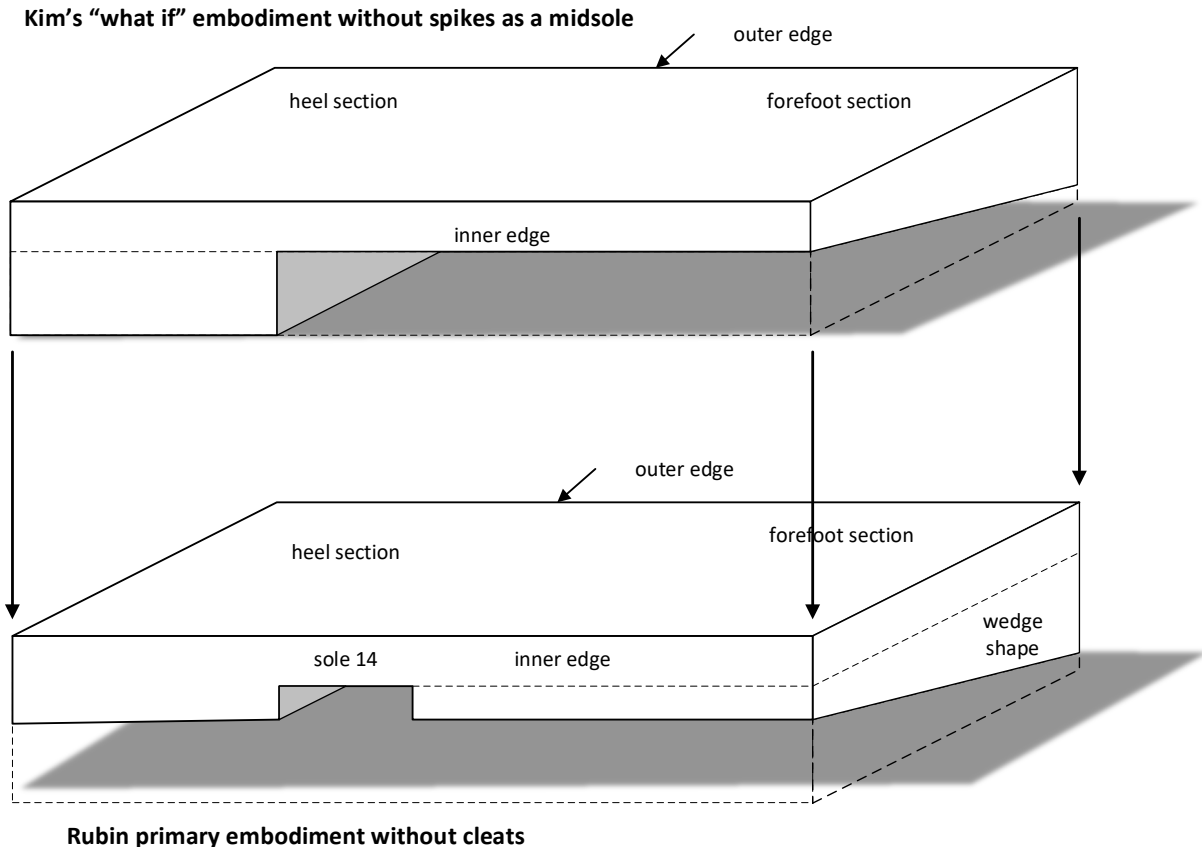
328. To a POSITA, the above combination would just be Rubin’s primary embodiment with more inward slope. It would fail to render claim 1 obvious as discussed above.

329. The second possible combination uses the primary embodiment of Kim and the “what if” embodiment of Rubin as shown below.



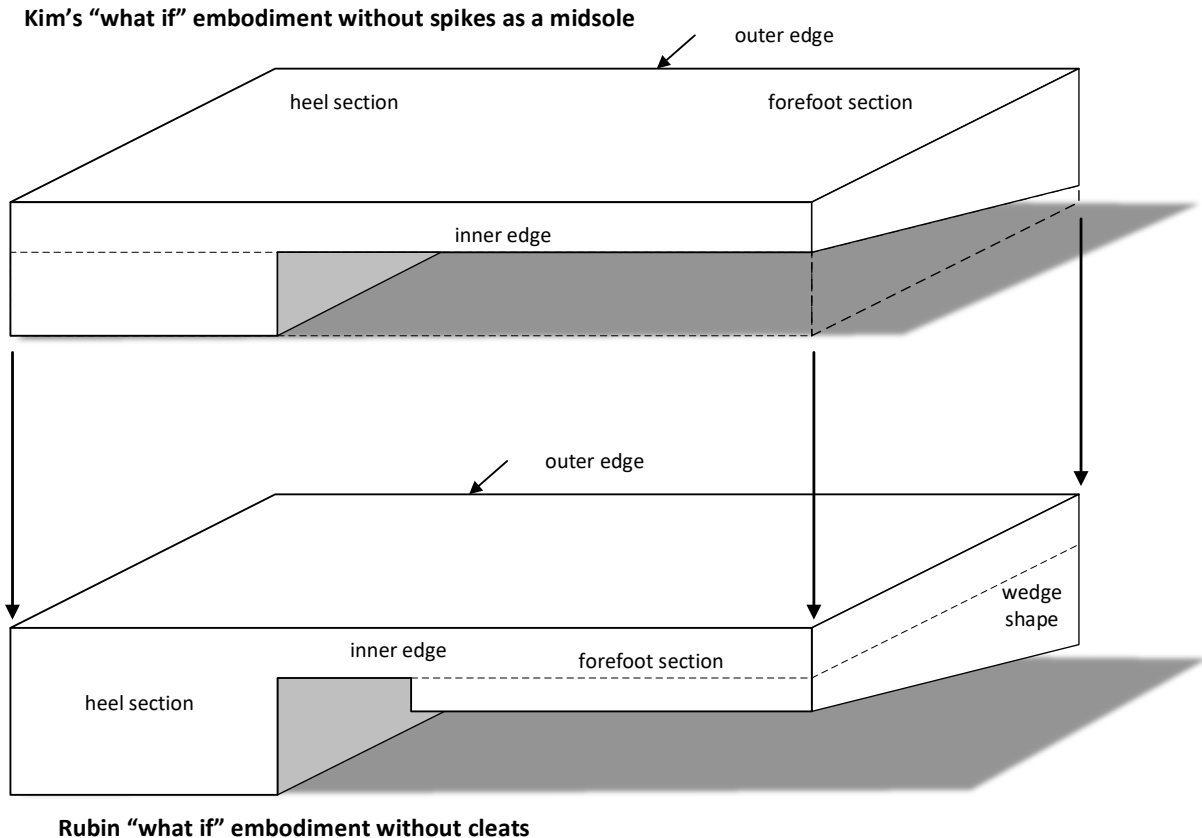
330. To a POSITA, the above combination would just be Rubin’s “what if” embodiment with more inward slope. It would fail to render claim 1 obvious as discussed above.

331. The third possible combination is the “what if” embodiment of Kim with the primary embodiment of Rubin as shown below.



332. To a POSITA, one interpretation of the above combination would produce the primary embodiment of Rubin with more inward slope if the extra heel portion of Kim’s midsole were added to the bottom of Rubin’s sole. If the heel portion of Kim is not moved, it would produce a nonsensical combination to a POSITA.

333. The fourth combination includes the “what if” embodiments for both Kim and Rubin as shown below.



334. To a POSITA, one interpretation of the above combination would produce the primary embodiment of Rubin with more inward slope and a very large heel if the extra heel portion of Kim's midsole were added to the bottom of Rubin's sole. If the heel portion of Kim is not moved, it would produce a nonsensical combination to a POSITA

335. Based on the foregoing, it is clear that Mr. Delgatty declaration does not show that claim 1 is obvious in view of the combination of Rubin and Kim.

5. All Dependent Claims are Patentable over Rubin in View of Kim.

336. Claims 2-5 depend from claim 1. Claim 1 is patentable over Rubin in view of Kim for the reasons explained above. Accordingly, by their dependency on claim 1, claims 2-5 are also patentable over this ground.

E. Grounds 1-3 All Fail to Render Claims 1-5 Obvious Under the Correct Construction of “Athletic Positioning.”

337. Each of the arguments above assume that “athletic positioning shape” is given no construction. However, as I previously explained, the correct construction of this term requires heel section higher than the toe section and the outside edge of the toe section higher than the inside edge of the toe section.

338. Under this construction, none of the prior art discloses or renders obvious claims 1-5, each of which require an “athletic positioning shape.” My analysis above shows why this is the case—none of the prior art discloses a heel section higher than the toe section and the outside edge of the toe section higher than the inside edge of the toe section. I hereby incorporate by reference the previous block diagrams and analyses of the prior art that I provided above in §§ IX.B, C, D and X.B, C, and D.

XI. SECONDARY CONSIDERATIONS OF NON-OBVIOUSNESS

339. The above arguments clearly show that the '291 patent is not obvious in light of the art cited by the Petitioner. In addition, there are secondary considerations that further show that the '291 is not obvious.

340. My analysis below is based both on my personal knowledge of the evidence I discuss as well as my opinions as a POSITA. Where I am relying on my personal knowledge, I have specifically noted that.

341. Athalonz sells and markets golf and baseball shoes that embody the claims of the '291 patent. Specifically, Athalonz's GF1 and GF2 baseball and softball shoes, EnVe golf shoes, and Mana Mangrove golf shoes all practice the claims of the '291 patent. Athalonz marks these products with the '291 patent. Athalonz has also provided detailed claim charts in the district court litigation showing how these products practice the '291 patent. EX2014.

A. Long-Felt, Unmet Need

342. The art cited by the Petitioner demonstrates the long-felt need for an athletic shoe that puts an athlete in a better athletic position and demonstrates the failure by others. Rubin was filed in October 1972 (39 years prior to the priority date of the '291 patent); Dufour was filed in May 1987 (24 years prior to the priority date of the '291 patent); and Kim was filed in July 2003 (8 years prior to the priority date

of the '291 patent). Based on these patents alone, the problem of creating a shoe that puts an athlete in a better athletic position was a long-felt and unmet until the '291 patent.

343. I am aware of no golf shoe available today that includes the concepts of Rubin, Dufour, or Kim. It is my opinion that, if the concepts of Rubin, Dufour, or Kim actually put an athlete in a better athletic position, there would be shoes available today that included such concepts. Based on these patents alone, the problem of creating a shoe that puts an athlete in a better athletic position existed 39 years prior to the priority date of the '291 patent and that the solutions of Rubin, Dufour, and Kim failed.

B. Skepticism by Others

344. I have personal knowledge that the concepts disclosed in the '291 patent faced skepticism by others. Athalonz introduced its first baseball shoe that include the invention of the '291 patent in 2015 with limited commercial success. The market in 2015 scoffed at the idea of a shoe that could actually improve athletic positioning and, by improving athletic positioning, increase power by about 9%. As discussed above, putting an athlete in a better athletic position was treated as a physics problem and not as a shoe design problem. Solving the physics problem by manipulating forces in three-dimensions through the shoes improves the force

transfer between the body and the ground. Improving the force transfer enables the athlete to generate more power given the same effort.

C. Industry Praise and Unexpected Results

345. I have personal knowledge that the Athalonz golf shoes that practice the patents were praised by others; in particular, professional World Long Drive (WLD) athletes and by Bernhard Langer.

346. Mitch McDowell, who was a teaching pro and WLD athlete, took a pair of Athalonz pre-production golf shoes to a competition the summer of 2018. Mitch McDowell was knocked out in the round of 32. Ryan Steenberg asked Mitch if he could try the Athalonz golf shoes. Mitch let him. At the time, Ryan had been competing in WLD for 8 years, was ranked number 6 in the world, but had never won an event.

347. Ryan won the event; his first WLD win. At the next event, Ryan won again and wore the Athalonz golf shoes. Other players asked Ryan what he changed. He responded, “his shoes”.

348. At first, the other players did not believe him but, one by one, the other players starting wearing Athalonz golf shoes. By mid-way through the 2019 WLD season, about half of all WLD athletes were wearing Athalonz golf shoes. In

addition, a majority of the top ten men and women were wearing Athalonz golf shoes, including the men's and women's 2019 WLD champions.

349. I am aware of no other product that has been so widespread and so quickly adopted by a professional sport like the Athalonz golf shoe. In my opinion, the answer is simple, because the Athalonz golf shoes place an athlete in a better athletic position and no golf shoe prior to the Athalonz golf shoe did.

350. As further praise by others, in 2020, Bernhard Langer started wearing Athalonz golf shoes. For over 40 years he wore Adidas golf shoes. Bernhard made the switch to Athalonz golf shoes because he hit the ball better in them than when he wore other golf shoes and he has repeatedly touted the benefits of the Athalonz golf shoes and their impact on his performance.

351. Exhibit 2013 is a copy of an article called "Athalonz Golf Shoes: The Golf Shoe for Distance?" from the website "The Left Rough." I have personal knowledge of this article based on my position as CEO of Athalonz. The article was downloaded from the website: <https://theleftrough.com/athalonz-golf-shoes-review/> on December 30, 2024. This article discusses how long drive competitors and Bernhard Langer both wear Athalonz golf shoes. The article also praises the Athalonz shoes and their ability to help golfers improve their driving distance and other aspects of their golf game.

D. Copying

352. Another secondary consideration of nonobvious is copying. I have personal knowledge of evidence that Under Armour copied Athalonz's shoes and patents.

353. In August 2013, I personally attended a meeting with Under Armour employees to discuss the athletic positioning shoes that I had invented with Rick Adair that are claimed in the '291 patent. In particular, I drafted and gave a lengthy presentation, attached as Exhibit 2012. That presentation included details about the importance of athletic positioning and the ideas for achieving optimal athletic performance with shoes that had the slopes and heights claimed in the '291 patent. At the time, Athalonz was known as AdMark Athletic Ventures (which later changed its name to Athalonz).

354. At that meeting, I explained to Under Armour the solution that we had invented was to create a shoe that places the heel higher than the toe section and the inner edge of the toe section at a lower position than the outer edge:

Creating A Solution

- We created a sole and/or an insole that provides:
 - a linear heel section that is higher than the toe section (i.e., downward slope from heel to toe); and
 - The inner edge of the ball of the foot and/or big toe portion of the toe section is lower than the outer edge of the toe section (i.e., inward slope from outside edge of front foot area to inside edge of front foot area);
- **Our Athletic Positioning Concept gives the athlete the optimal foot positioning for an optimal Athletic Start;**

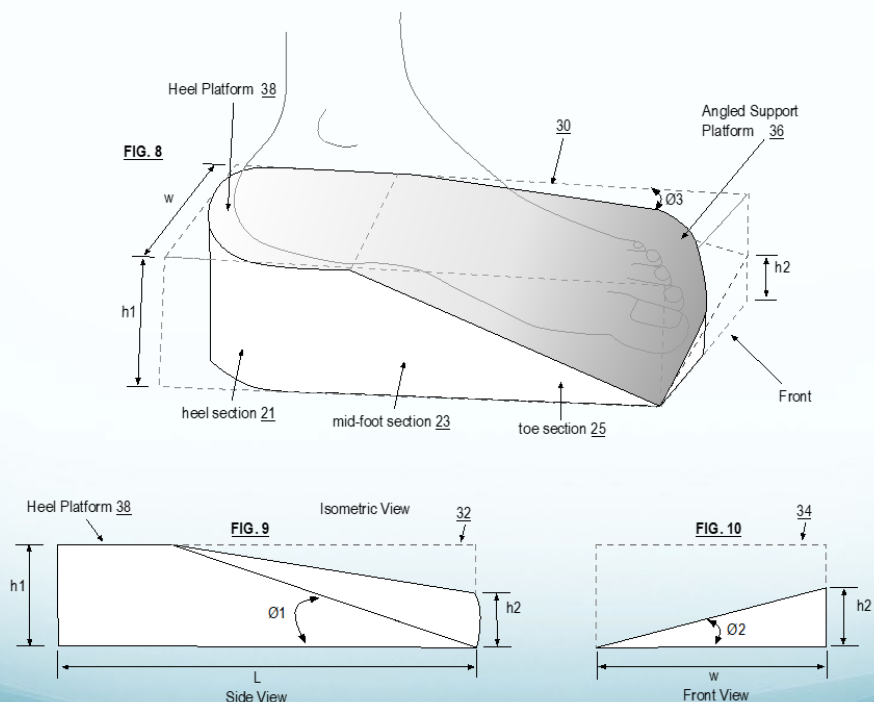
AdMark Athletic Ventures Confidential Information

13

EX2012, 13.

355. I also explained to Under Armour that Athalonz had filed patent applications on this technology. I included figures from the patent applications, including figures that later became part of the '291 patent:

Athletic Positioning with Heel Platform



AdMark Athletic Ventures Confidential Information

54

EX2012, 54.

356. At the meeting, I discussed with Under Armour various options for acquiring or licensing Athalonz's technology. EX2012, 47-49.

357. After the meeting, in 2014, I sent Under Armour a physical prototype of the Athalonz shoes, which they told me they would be testing internally.

358. Under Armour never purchased or licensed the Athalonz patents or technology. Instead, Under Armour began releasing its own shoes that implemented

the athletic positioning technology claimed in the '291 patent. These shoes were all released after I presented the slides above to Under Armour in 2013.

359. This evidence of copying further highlights that the claims are nonobvious.

E. Conclusion

360. Based on the foregoing, there are numerous secondary considerations for non-obviousness. Take in conjunction with the direct arguments of non-obviousness, it is more than clear that the '291 patent is not obvious in view the art cited by the Petitioner.

XII. SIGNATURE

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on this 3rd day of January 2025.

/Timothy Markison/

Timothy Markison