

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNDER ARMOUR, INC.,
Petitioner,

v.

ATHALONZ, LLC,
Patent Owner.

Case IPR2024-00639
Patent No. 11,375,768

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

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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 IPR2024-00639 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. 11,375,768 ("the '768 Patent").

2. I am the CEO of Patent Owner Athalonz, LLC ("Athalonz" or "Patent Owner") and a named inventor on the '768 Patent. I am not being compensated for this declaration. In conjunction with my co-inventor Rick Adair, I have spent the last approximately 15 years researching, analyzing, designing, and building athletic shoes. Accordingly, I am qualified to offer opinions from the perspective of a person of ordinary skill in the art at the time of the invention. Further, despite my connections to Athalonz and to the '768 Patent, I am a patent attorney bound by the rules of professional conduct and the rules of the United States Patent and Trademark Office and can provide objective opinions regarding the patentability of the subject matter claimed in the '768 Patent and the relevant state of the art.

3. I have been asked to analyze the Petition (Paper 1) and Mr. Delgatty's declaration (EX1002) in support thereof, as well as the '768 Patent and its file history. I have been asked to provide my opinions about certain obviousness theories

and opinions in Mr. 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 '768 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, 2-5, and 8 of the '768 Patent, which I understand are the challenged claims. *See* EX1002 § IX. I understand that claim 1 is the independent claim.

5. This Declaration and its exhibits, in addition to my education, training, and experience in technology fields pertinent to the '768 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 preparing this Declaration, I have reviewed the Petition (Paper 1), the declaration of Mr. Delgatty (EX1002) and certain materials cited therein, and Patent Owner's Preliminary Response and materials cited therein. I have also reviewed materials filed in other related IPR proceedings, including the petitions and declarations submitted by Mr. Delgatty therein.

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, 9:31-35. 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.

V. PRIORITY DATE OF THE '768 PATENT

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 identify the priority date of the '768 Patent claims priority. For the purposes of my opinions in this Declaration, I have been asked to assume the '768 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.

VI. 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, ¶30.

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 '768 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 '768 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:
 1. Customer familiarity with fit and feel of existing athletic shoes;
 2. Expense associated with creating molds for midsoles and outsoles; and
 3. 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..

VII. TECHNICAL BACKGROUND

47. In order to fully understand the invention claimed in the '768 Patent, a brief overview of the application of physics principles to the field of athletic shoes is necessary.

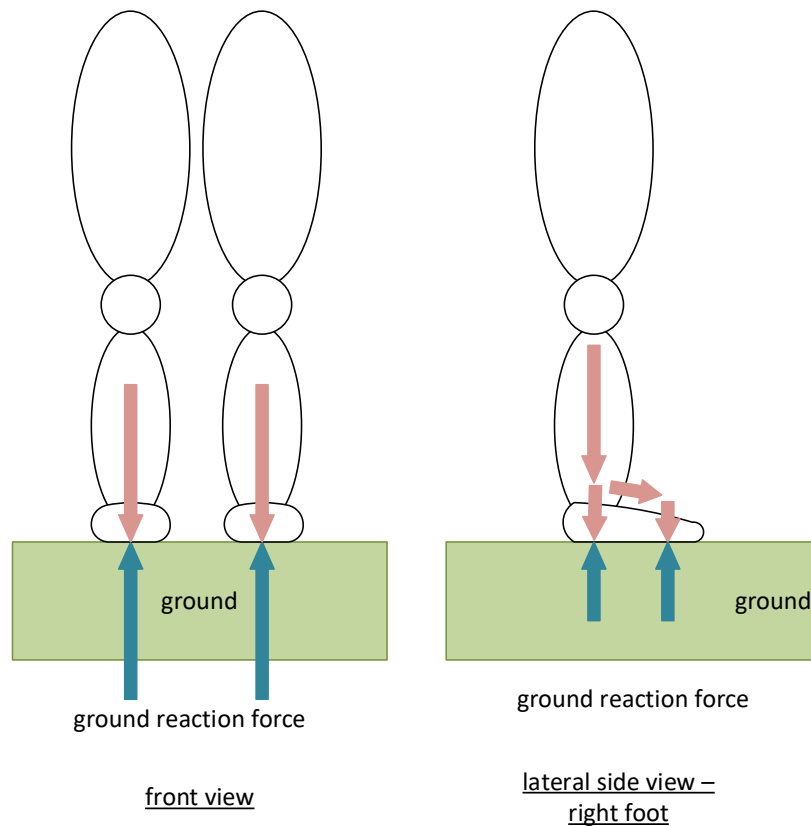
48. To begin, Newton's three laws of Motion state: (1) A body at rest will remain at rest, and a body in motion will continue moving at a constant velocity unless acted upon by an external force; (2) the acceleration of an object is directly proportional to the net force acting upon it and inversely 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.

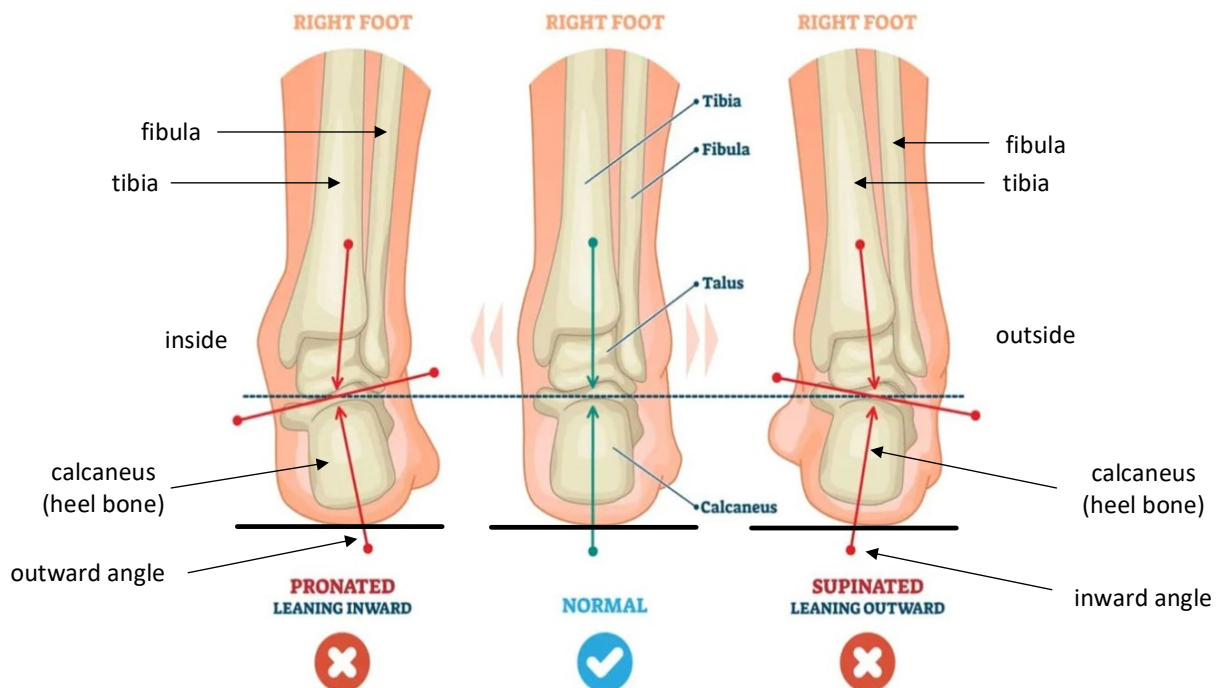
54. In the lateral side view of the right leg, the weight forces (red arrows) are distributed through the foot. In this illustration, the weight forces are about equally distributed between the heel and the forefoot. Again, the blue arrows

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.

A. Pronation and Supination

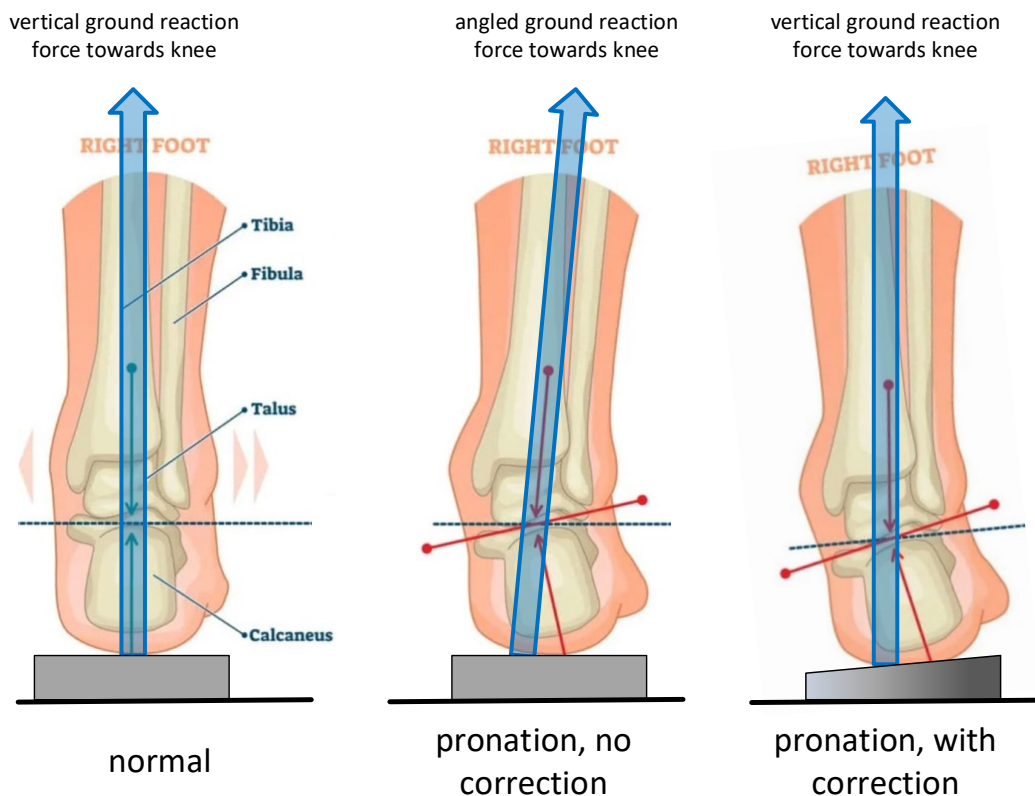
56. The terms pronation and supination should be familiar to a POSITA. As shown below, pronation has the heel at an outward angle with respect to the outside of the foot in comparison to a normal foot alignment. Supination has the heel at an inward angle with respect to the outside of the foot with respect to the normal foot alignment.



EX2020.

57. I note that Mr. Delgatty agreed in his deposition that the foregoing illustration accurately depicted pronation and supination. EX2010, 115:18-116:2. The outward angle of pronation and the inward angle of supination can lead to injuries. Addressing such injuries is a design objective of Norton (EX. 1007).

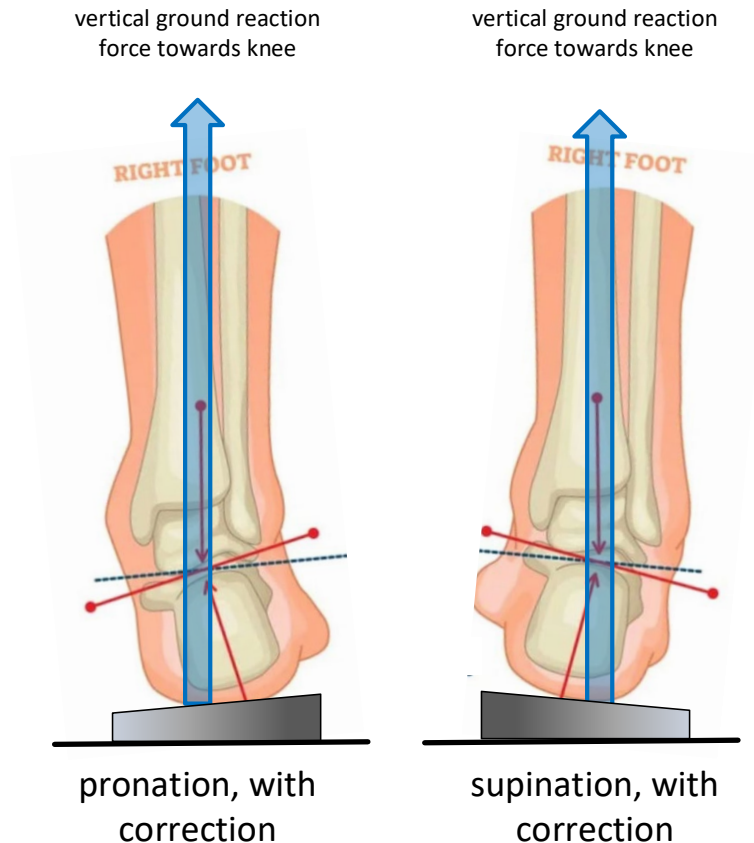
58. From a force perspective, the weight forces of the body pushes on the ground and the ground pushes back with a ground reaction force. For a normal foot alignment in a shoe with a flat cross-sectioned sole, the ground reaction force is vertical to the ground, which keeps it aligned through the foot, ankle, and calf to the knee as shown below.



59. As shown above in the middle image, for pronated foot in a shoe with a flat cross sectioned sole, the ground reaction force is at an angle with respect to the ground. As such, it is not aligned, based on the angle, through the kinetic chain of the foot, ankle, and calf to the knee. This misalignment increases the risk of injury, especially knee injuries.

60. As shown above in the right image, for a shoe to compensate for pronation, it includes a wedge cross-sectioned shape having an angle that offsets the outward angle of pronation. With correction, the ground reaction force is vertical to the ground and better aligns the force through the kinetic chain of the foot, ankle, and calf to the knee.

61. The figure below shows correction for supination in comparison with the correction for pronation.



VIII. SUMMARY OF THE '768 PATENT

A. Overview of the Patent

62. The '768 Patent recognized that the prior art offered “a wide variety of shoes” on the market, each with different designs and styles depending on their use. *Id.*, 1:50-52. For example, athletic shoes generally had a “particular sole pattern, a sole design, an insole design, and upper shoe portion design.” *Id.*, 1:54-59. However, prior art athletic shoes were limited in their design for athletic performance. For example, the patent recognizes that prior art baseball cleats were typically designed only to “facilitate[] better traction in grass and/or dirt while playing baseball.” *Id.*,

1:67-2:1. As such, these prior art shoes consisted of either a “relatively flat platform for the foot within the baseball spikes,” or sometimes offered a “heel portion of the shoe” “higher than the toe portion of the shoe.” *Id.*, 2:1-6.

63. The subject matter of the '768 Patent discloses the core concepts that address the technical problem of putting an athlete in a better athletic position. The subject matter further discloses expansions of the core concepts, applications of the core concepts, and applications of the expanded core concepts. The core concepts, expansions thereof, and applications thereof encompass numerous innovative solutions and the claims of the '768 Patent reflect one of the innovative solutions.

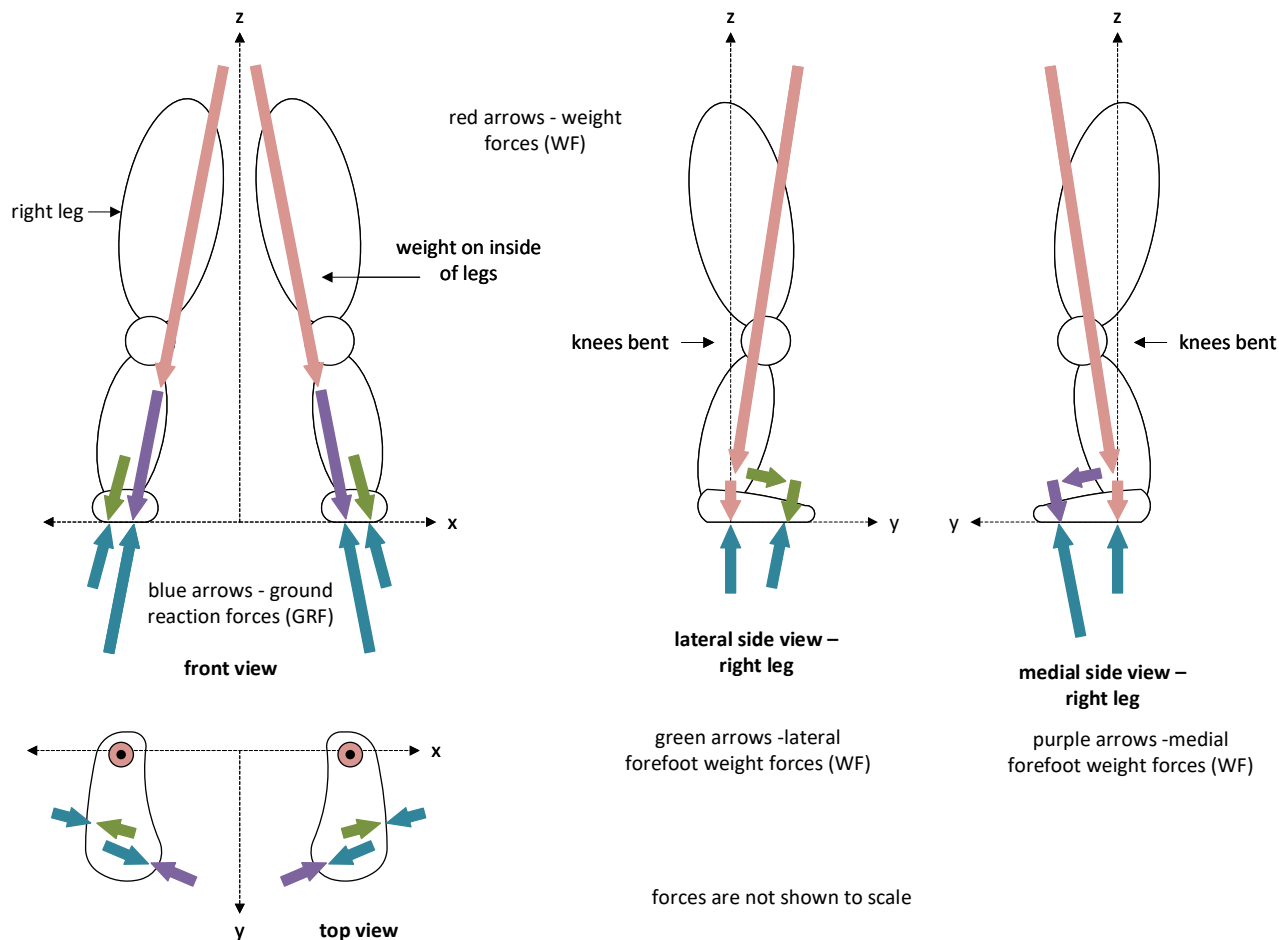
64. The '768 Patent discloses that a better athletic position occurs for an athlete when the knees are slightly bent, weight (of the athlete) is more on the inside of the legs than the outside of the legs, and the knee position is aligned with the ankles and hips, sometimes in conjunction with other athlete positioning characteristics (such as feet about shoulder width apart and the heel is higher than the toes). EX1001, 9:30-35, 28:36-42.

65. The particular implementation of the athletic position varies, but generally consists 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.*, 9:16-18. The athletic shoe of the '768 Patent,

when worn and weight is applied, creates an athletic positioning shape via a sole section where the heel section is higher than the inside edge of a toe section, the heel section is higher than the outer edge of a toe section, and the outside edge of a toe section is higher than the inside edge of the toe section. *Id.*, 9:17-24.

66. Based on the teachings of the '768 Patent and on background technical information and principles, the following figure illustrates an athletic position and the corresponding forces. In the front view (which is the x-z plane), the athletic position has the feet about shoulder width apart and the weight forces (the red arrows) are on the inside of the legs. For each leg, the weight force includes an inside (medial) weight force (purple arrow) and an outside (lateral) weight force (green arrow). The inside weight force is larger than the outside weight force to promote the overall weight force staying on the inside of the legs. The blue arrows represent the corresponding ground reaction forces.

67. In the lateral side view of the right leg (which is the y-z plane), the knee is bent, and the weight force is angled inward from the torso (not shown) to the feet. In the right foot, weight force is distributed between the heel (red arrow) and the outer forefoot (green arrow). The blue arrows represent the corresponding ground reaction forces.



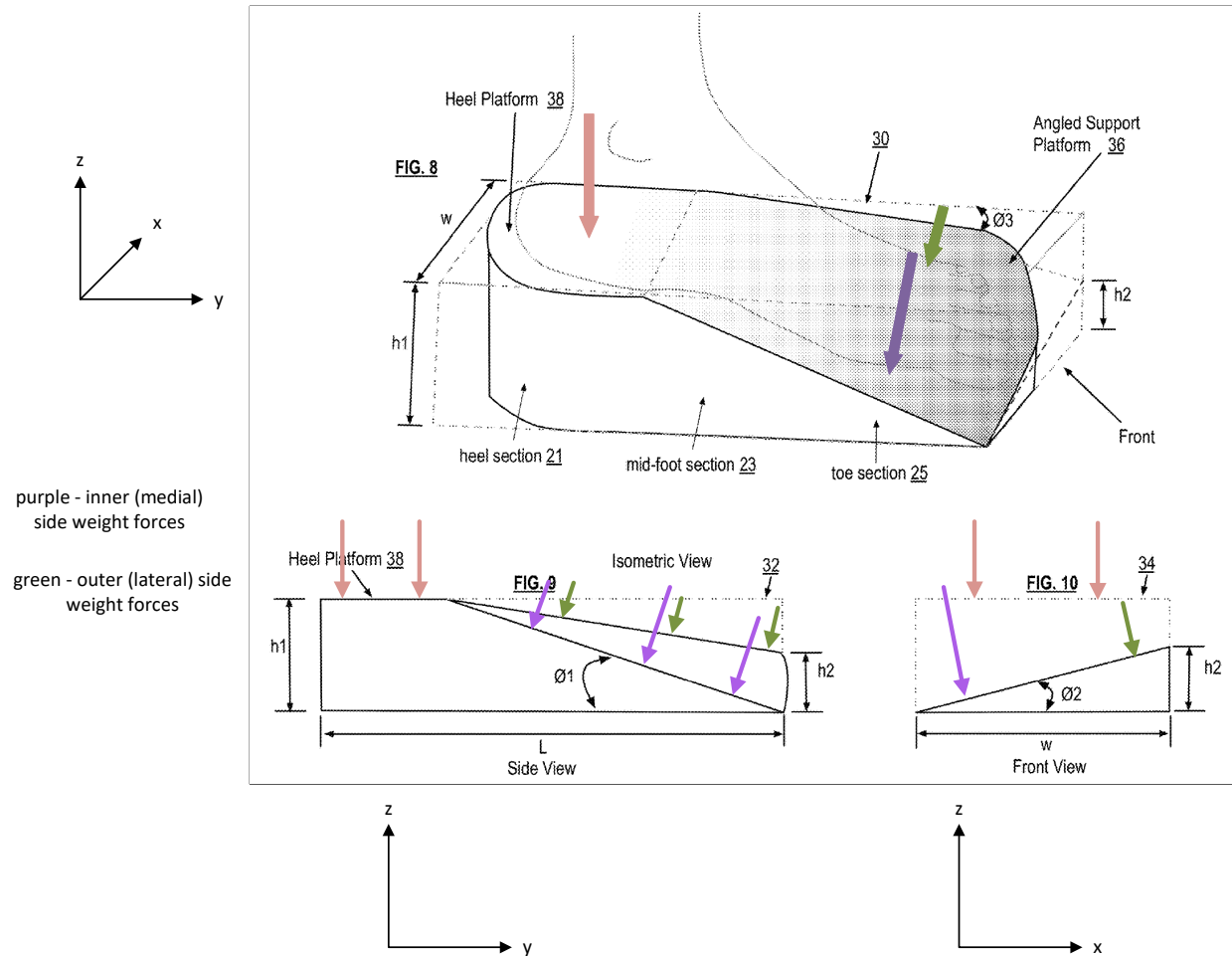
68. In the medial side view of the right leg (which is also the y-z plane), the knee is bent, and the weight force is angled inward from the torso (not shown) to the feet. In the right foot, weight force is distributed between the heel (red arrow) and the inner forefoot (purple arrow). The blue arrows represent the corresponding ground reaction forces. In comparing the lateral side view and the medial side view, the weight force on the inner forefoot is greater than the weight force on the outer forefoot. Correspondingly, the inner forefoot ground reaction force is greater than the outer forefoot ground reaction force.

69. In the top view (which is the x-y plane), each foot has a perpendicular weight force in the heel section (red circuit). In addition, each foot includes an inside forefoot weight force (purple arrow), its corresponding ground reaction force (blue arrow), an outside weight force (green arrow), and its corresponding ground reaction force (blue arrow).

70. The '768 Patent also discloses, with respect to Figures 8-10 (EX. 1001, 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. EX. 1001, 10:39-11:3.

71. 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 (Φ_3) angles upward on the outside edge of the angled platform 36. The first height (h_1) of the angle platform 36 corresponds to the height of the heel platform 38; the second height (h_2) 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 with is greater than the third height. (EX. 1001, excerpts from 10:39-11:3)



72. 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 '768 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.

73. 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.

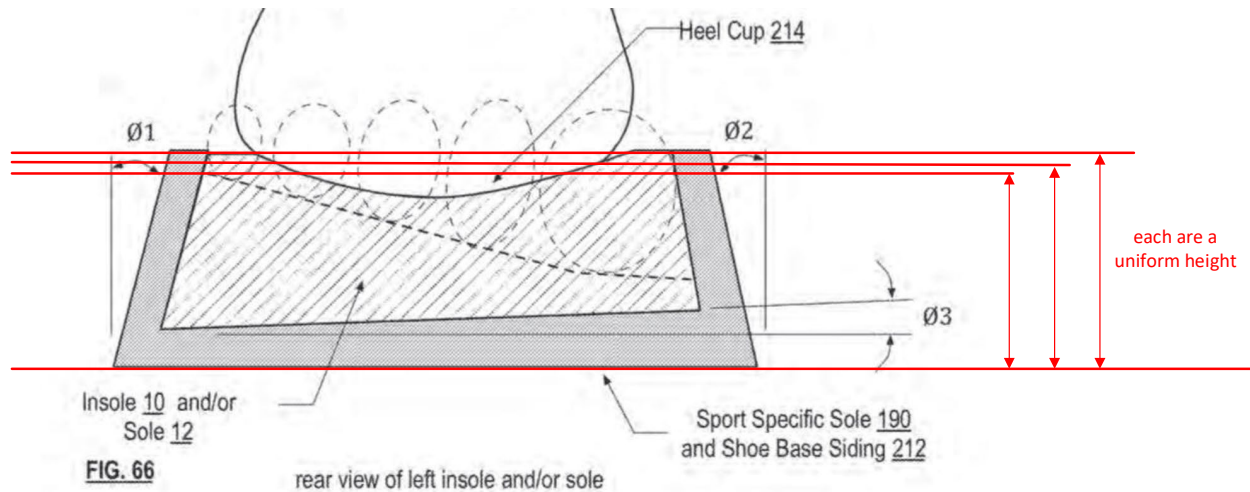
74. The inner forefoot weight force is distributed along the inner portion of the angled platform as shown by the smaller purple arrows. Each inner forefoot weight force has an x-component, a y-component, and z-component.

75. 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.

76. 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 '768 Patent, below.

77. 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.



(EX. 1001, Figure 66, annotated)

78. The '768 Patent discloses numerous embodiments of a sole section of an athletic shoe that provides an athletic positioning shape using materials that have different compressibility in various sections. For example, Figures 34-43. Figures 93 and 94, Figure 95, Figure 96, Figures 101-110, Figures 112 and 113, and Figure 114 and 115.

79. Figures 34-43 illustrate various embodiments of using different materials to facilitate an athletic positioning shape. Figure 40 is one such embodiment shown below. It is a cross-section side view of an athletic positioning sole and/or insole. The '768 Patent lists a variety of materials for each of the compressible material, the rigid material, and the recoil material. (EX. 1001, 16:52

– 17:8) Figures 34-39, and 41-43 illustrate different combinations of the materials.

EX. 1001, 15:21 – 18:2)

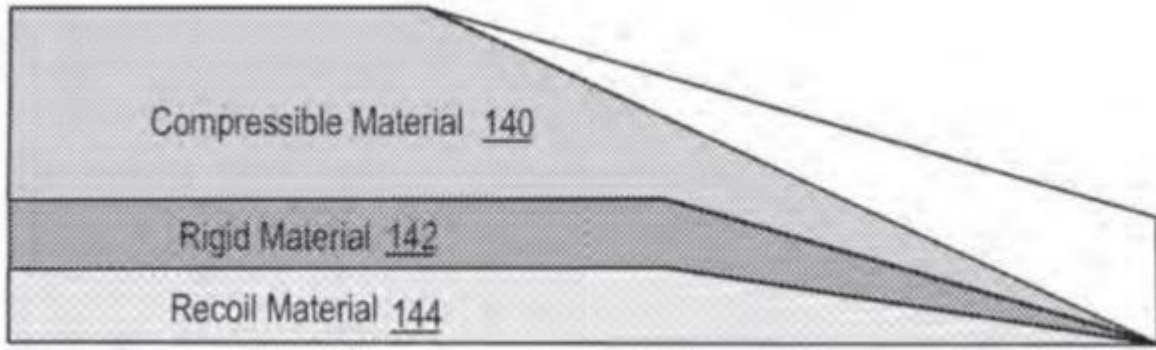
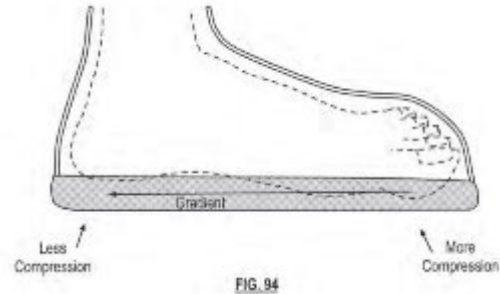
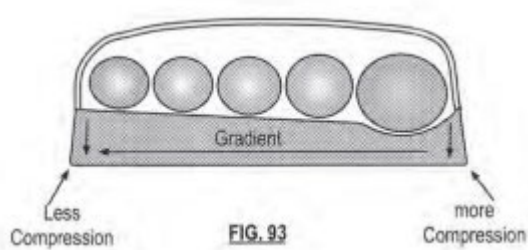


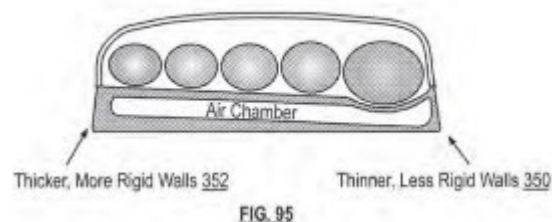
FIG. 40

80. Figures 93 and 94 illustrate an embodiment of an integrated athletic positioning sole and insole that is comprised of one or more materials that provides a more compressible area towards the big toe/ball of foot area and increasingly less compressible away from the big toe/ball of foot area to facilitate an athletic position. The integrated sole and insole may include a rigid material as an outersole (e.g., a sport specific bottom) to provide a base. On top of the base, the integrated sole and insole include one or more varying compressible materials. For example, the next layer is a single resilient material (e.g., rubber, gel, foam, synthetic material, etc.) of varying density to provide a compressible gradient. As another example, the next layer includes a plurality of materials, each having a shape to collectively provide the athletic positioning shape. In addition, at least some of the materials have a

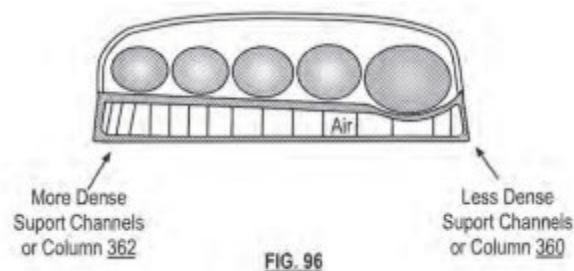
different level of compressibility to facilitate the compressible gradient. (EX. 1001, excerpts from 27:47-67)



81. Figure 95 illustrates another embodiment of an integrated athletic positioning sole and insole that is comprised of a flexible and resilient material that creates a chamber (which may be filled with gel, air, another liquid material, oil, water, etc.), which provides a more compressible area towards the big toe/ball of foot area 350 and increasingly less compressible away from the big toe/ball of foot area 352 to facilitate an athletic position. As shown, the walls are thicker on the outer edge than on the inner edge. Further, the integrated sole and insole may include an outsole of a rigid material (e.g., a sport specific bottom). (EX. 1001, excerpts from 28:11-39)

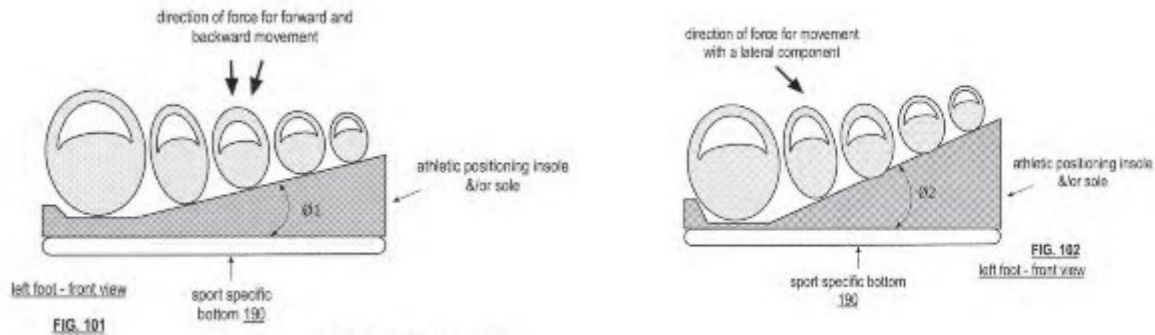


82. Figure 96 illustrates another embodiment of an integrated athletic positioning sole and insole that is comprised of a flexible and resilient material and includes a plurality of supporting columns and/or panels. The columns and/or panels create a plurality of chambers (which may be filled with gel, air, oil, another liquid material, water, etc.). The number and/or thickness of the columns and/or panels is greater at the outer edge 362 of the shoe than on the inner edge of the shoe 360, which provides a more compressible area towards the big toe/ball of foot area and increasingly less compressible away from the big toe/ball of foot area. The material may be one or more of rubber, a synthetic material, plastic, fiberglass, carbon fiber, etc. Further, the integrated sole and insole may include an outsole of a rigid material (e.g., a sport specific bottom). (EX. 1001, excerpts from 28:40-58)



83. Figures 101 and 102 illustrate another embodiment of a sole/insole assembly that includes a dynamic athletic positioning sole-insole and a sport specific bottom (e.g., an outsole). The athletic positioning sole-insole has a shape corresponding to one of the athletic positioning shapes, which is adaptable based on the force applied. Figures 103 – 110 illustrate and describe the use of different

materials to form chambers that create a dynamic athletic positioning shape. (EX. 1001, excerpts from 28:30 – 33:30)



84. Figures 112 and 113 illustrate another embodiment of a varying positioning athletic positioning sole/insole assembly that includes an outersole, a sole-insole section, and an inner sole. The sole/insole section includes a rigid material section 142 and an easily compressible section 140. The rigid material section is comprised of one or more rigid materials and has a shape corresponding to one of the athletic positioning shapes. The easily compressible section is comprised of one or more easily compressible materials (e.g., foam, memory foam, soft rubber, a housing filled with a liquid material, etc.) and has a mating shape to that of the rigid material section 142 such that, under a no load condition, the combination of the rigid material section and the easily compressible material section provide a conventional sole shape or a slight athletic positioning shape (e.g., angles less than a few degrees). When a directional weight force is applied, the easily

compressible material compresses as shown in Figure 103. (EX. 1001, excerpts from 33:60 – 34:30)



85. Figures 114 and 115 illustrate another embodiment of a varying positioning athletic positioning sole/insole assembly that includes an outsole, a sole-insole section, and an inner sole. The outsole may be a sport specific bottom, a casual shoe bottom, or a dress shoe bottom. The sole-insole section includes a rigid material section 142 and an easily compressible section 140. In this embodiment, the rigid material includes multiple angles.



86. As discussed above, the '768 Patent discloses numerous embodiments of an athletic shoe having a dynamic athletic positioning shape through the use of different geometries with materials that have different compressibility

characteristics. Shoes with soles that implement the gradient compression factor as described and claimed in the '768 patent place the foot in an ideal athletic position for many athletic activities and thus provide substantial advantages over shoes that existed before the priority date.

B. Prosecution History

87. During prosecution, the primary reference relied upon by the Examiner was Talarico U.S. Patent 4,642,911 (“Talarico ’911”)—a patent that Petitioner also relies on in this IPR and in the parallel IPR proceeding challenging U.S. Pat. No. 11,510,456.

88. Below is a brief summary of the prosecution of the '768 Patent:

- A 1st non-final office action was issued on 12/17/2020. In this office action, claims 1-9 were rejected under 35 USC 102(b) as being anticipated by Talarico '911. A response was filed on 6/16/21.
- A 1st final office action was issued on 6/23/21. In this final office action, claims 1 – 9 were again rejected under 35 USC 102(b) as being anticipated by Talarico '911. A response was filed on 7/8/21.
- A 2nd non-final rejection was issued on 8/6/21. In this office action, claims 1-6, 8, and 9 were rejected under 35 USC 102(b) as being

anticipated by Talarico '376 in view of Talarico '911. A response was filed 9/30/21.

- A 2nd final rejection was issued on 10/22/21. In this final office action, claims 1-6, 8, and 9 were again rejected under 35 USC 102(b) as being anticipated by Talarico '376 in view of Talarico '911. In response to this 2nd final office action, the applicant filed a notice of appeal and a subsequent appeal brief. The appeal brief was filed on 1/6/22.
- Without responding to the appeal brief, the USPTO issued a notice of allowance on 3/4/22.

89. The examiner's Notice of Allowance expressly found the claims of the '768 Patent patentable over Talarico '911.

IX. CLAIM CONSTRUCTION

90. 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 '768 Patent's specification and prosecution history, to have their plain and ordinary meaning. Except for the specific instances discussed below where I have applied certain construction proposed by Petitioner for purposes of evaluating the Petition, I have applied the plain meaning of the claims in forming my opinions. In my opinion, all

claim construction positions that Patent Owner and I have proposed are consistent with and reflect the plain meaning of the terms in question.

91. 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 below.

A. “Gradient compression factor”

92. I understand that Petitioner asserts that “a POSITA would understand that a forefoot platform constructed of a second material having a ‘gradient compression factor’ would become ‘increasingly less compressible’ from the inner edge to the outer edge of the forefoot platform.” Pet., 17-18.

93. I disagree with this construction as in my opinion it is narrower than the plain meaning and what was disclosed in the ’768 Patent. For example, this construction—at least as Petitioner appears to be applying it—would exclude embodiments in which compression decreases from the inner to the outer edge through a series of step changes, it would exclude the embodiments of Figures 34-43, of Figures 100-110, of Figures 112-113, and of Figures 114-115. Such embodiments are plainly within the plain meaning of “gradient,” as Petitioner’s cited dictionary definition indicates, and within the teachings of the ’768 Patent. *See* EX1019 (defining “gradient” as a “change in the value of a quantity (such as

temperature, pressure, or concentration) with change in a given variable and esp. per unit distance in a specified direction”).

94. Nonetheless, I understand that it is appropriate to apply the construction proposed by Petitioner in evaluating the IPR Petition and Mr. Delgatty’s related opinions, since they are both based on that construction. Accordingly, I have applied Petitioner’s proposed construction. My opinions regarding whether the prior art discloses a “gradient compression factor” would not change, however, if the plain meaning of “gradient compression factor” were applied.

B. “Heel Platform Having a First Height That is Substantially Uniform Around a Perimeter of the Heel Platform”

95. I understand that Petitioner construes this term “to mean the perimeter of the portion of the shoe where the heel of the foot sits, not the outer-most perimeter of the shoe” and “construe[s] this limitation to include a heel platform that includes some degree of curvature and height change from its inner edge to its outer edge, and from the front to the rear.” Pet., 18-19.

96. In my opinion, the first part of this construction, which specifies that the limitation refers to “the perimeter of the portion of the shoe where the heel of the foot sits, not the outer-most perimeter of the shoe” is correct and consistent with the plain meaning of the term.

97. The '768 Patent discusses and illustrates the inner edge and outer edge several times throughout the specification. The '768 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. (EX. 1001, 9:16-18)

98. The '768 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.

99. As would be understood by a POSITA, with respect to athletic positioning of the athlete wearing the shoe, what happens outside of the inner edge and of the outer edge has no effect. As such, a POSITA would know, based on the disclosure of the '768 Patent, that to affect athletic positioning via a sole assembly, the inner edge and outer edge have to be related to how the foot engages the sole assembly as shown above with reference to Figure 101.

100. As to the second part of the construction (i.e., some degree of curvature and height change from its inner edge to its outer edge, and from the front to the rear), I view it as a reference to a heel cup as shown in Figure 66, as shown above but, to me, adds little clarity to the term “substantially uniform,” which plainly does not require complete uniformity. Regardless, whether Patent Owner’s proposed

construction or the plain meaning is used does not impact my opinions regarding Petitioner and Mr. Delgatty's unpatentability theories.

C. “first material” / “second material”

101. I understand that Petitioner and Mr. Delgatty have applied a construction for “first material” and “second material” that permits both materials to be the same. Pet., 25 n. 1 (applying “apparent construction” under which the “first material” and the “second material” “can be the same material”); EX1002, 40 n. 1 (“Thus, I understand the “first” material to be that which is used in the heel platform and the “second” material to be that which is used in the forefoot platform, which may be the same as, or different from, the first material.”).

102. I disagree with this construction. The terms “first material” and “second material” would be understood by a POSITA to refer to two distinct materials—not the same material.

103. This is plain, in my opinion, from the claim language. The claims require a “heel platform” that is “constructed of a *first material* having a first compression factor.”² EX1001, 43:29-32. They then recite a “forefoot platform

² Unless otherwise noted, I have added all emphasis that appears in quoted material.

juxtaposed to the heel platform, wherein the forefoot platform is *constructed of a second material* having a gradient compression factor.” 43:33-36.

104. If the “first material” and “second material” could be the same, the terms “first” and “second” and the terms “first compression factor” and “gradient compression factor” would be superfluous. It would make no sense to a POSITA that the patentee would specifically claim distinct heel and forefoot platforms made of “first” and “second” materials, respectively, if those two materials could be same—resulting in heel and forefoot platforms that are “constructed of” the same material.

105. This is consistent with the specification of the ’768 Patent, which discloses a wide variety of different materials having different properties that can be used in the invention. *See, e.g.*, EX1001, 15:11-12, 15:19-26; 19:48-50; 15:9-10, 15:30-32, 15:32-35, 16:5-9, 19:45-47, 16:16-19, 27:7-10. There is no suggestion that these separately described materials can be the same.

106. As I discuss below, the fact that Petitioner and Mr. Delgatty do not explain how the prior art allegedly discloses a “first material” that is different from the “second material” is one of many reasons why their unpatentability theories are unpersuasive.

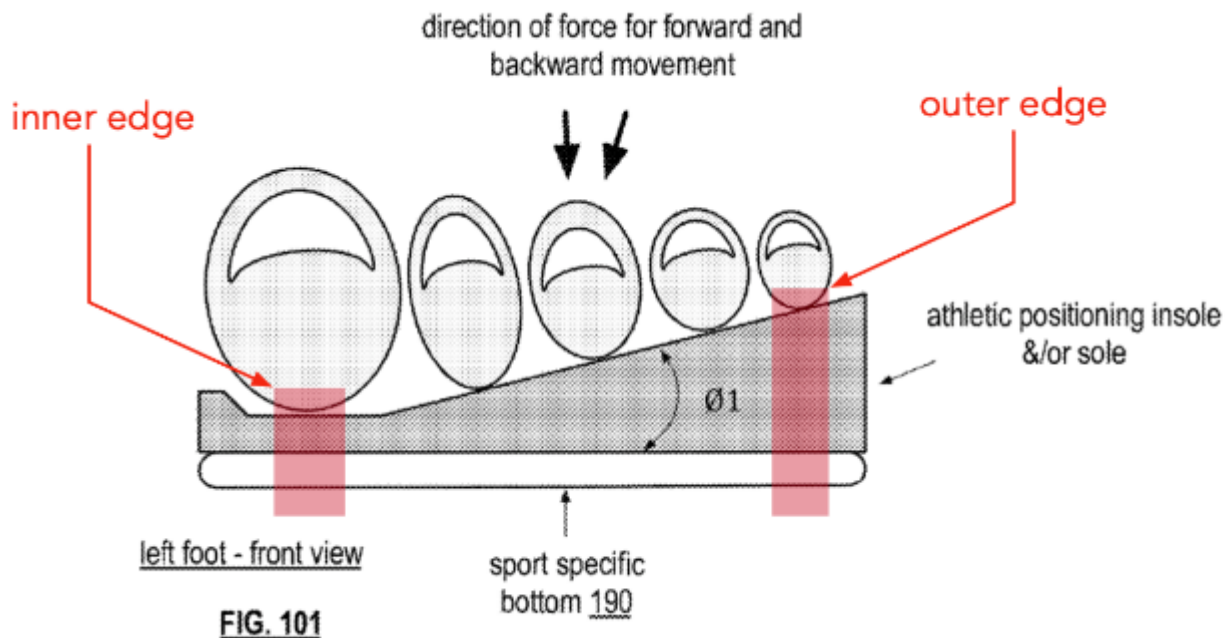
D. “Inner Edge” / “Outer Edge”

107. As alluded to above and further explained below, a POSITA would understand the terms inner edge and outer edge, within the context of the ‘768 Patent’s specification and claims, to refer to the positions within the shoe where a foot interacts with it.

108. The ’768 Patent discusses and illustrates the “inner edge” and “outer edge”, several times throughout the specification. The ’768 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. (EX. 1001, 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.

109. The ’768 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.

110. As a specific example, Figure 101 illustrates with annotations, from a front view of a left foot athletic positioning sole assembly, how the foot engages with the sole assembly. Accordingly, the inner edge is in the area and the outer edge is in the area as shown below.



(EX. 1001, Figure 101, with annotations)

111. With respect to athletic positioning of the athlete wearing the shoe, what happens outside of the inner edge and of the outer edge has negligible effect. As such, a POSITA would know, based on the disclosure of the '768 Patent, that to affect athletic positioning via a sole assembly, the inner edge and outer edge have to be related to how the foot engages the sole assembly as shown above with reference to Figure 101.

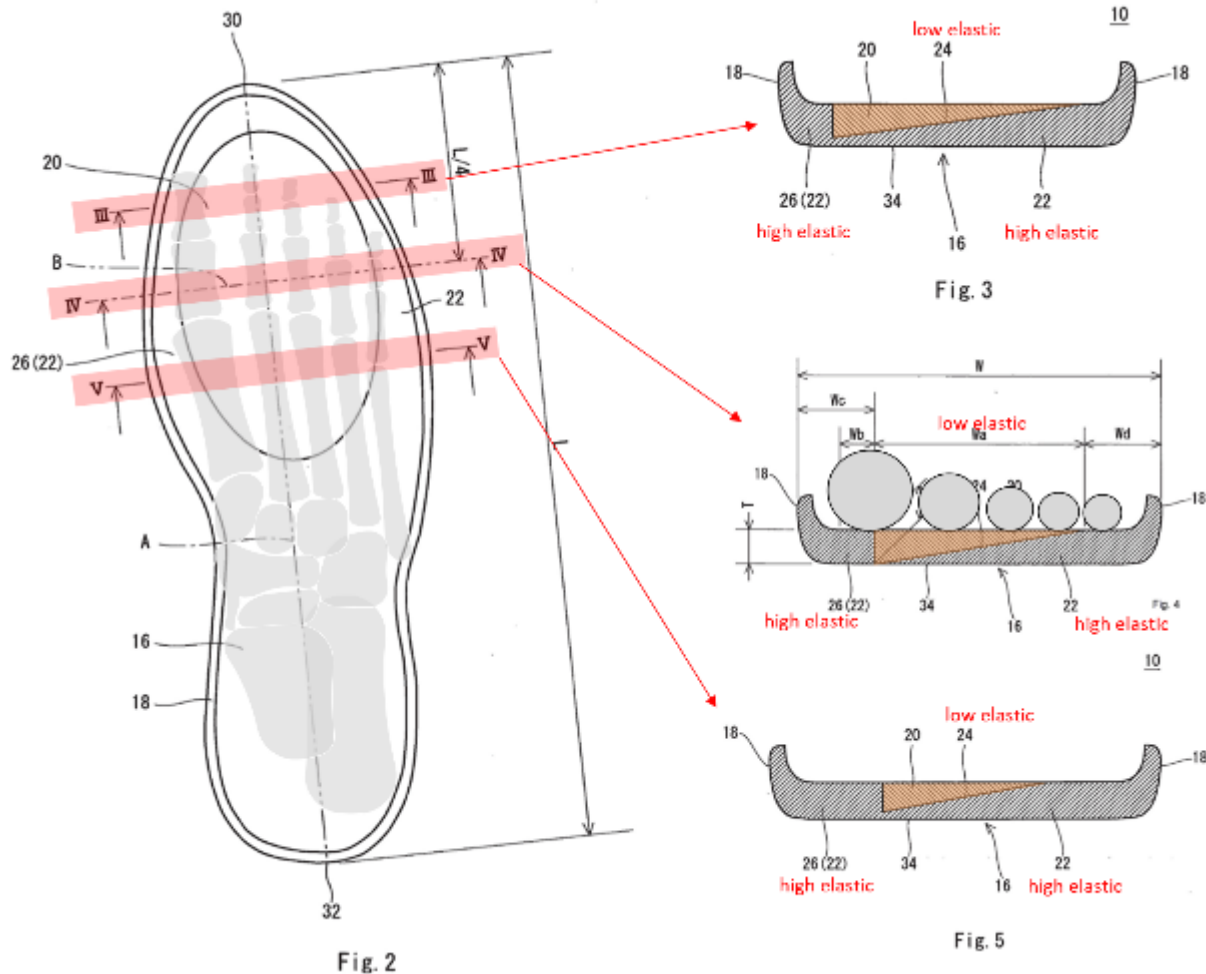
X. THE ASSERTED PRIOR ART

A. Umezawa (EX. 1006) – U.S. Published Application No. 2007/0107258

112. Umezawa is addressing the problem of creating a shoe in which a wearer's body weight is easily applied to the inside of the foot. EX.1006, ¶10.

113. In general, Umezawa addresses the problem by employing a compressible “wedge” within a designated area of the forefoot of a shoe as shown Figures 2, and 12–14. Umezawa discloses several ways to construct the compressible wedge as shown in Figures 3 – 11.

114. Umezawa discloses that Figure 2, annotated below, is a top view of a midsole 10 of a golf shoe for a right foot. The midsole 10 includes a low elastic part 20 and a high elastic part 22. EX.1006, ¶37. The low elastic part 20 is more easily deformed than the high elastic part 22. EX. 1006, ¶36. Umezawa refers to the less compressible “high elastic” part 22 in this way because Umezawa uses “high elastic” as a shorthand for “high elastic modulus.” EX1006 ¶ 36. A material with a high elastic modulus will deform less in response to pressure.



115. Umezawa discloses that Figures 3-5 are representative crosscuts of the midsole 10 at positions III, IV, and V of Figure 2, respectively. The left side of Figures 3-5 is in the inside direction (medial side) and the right side is in the outside direction (lateral side). EX.1006, ¶33. Notably, positions III, IV, and V of Umezawa are all in the forefoot. Umezawa includes no cross-sectional views of the heel section and does not describe the height of the heel section. Nor does it disclose a forefoot platform that is thicker proximal to the heel than at the toe.

116. From left to right (i.e., from the inside to the outside of the forefoot section), the midsole includes an inner high elastic part 26, a low elastic part 20 that sits on an incline surface, and a high elastic part 22. EX. 1006, ¶37. Inner high elastic part 26 is made of the same material as high elastic part 22. EX1006, ¶0037 (“A high elastic part 22 which is located to the inside of the low elastic part 20 is hereinafter referred to as ‘inner high elastic part 26.’”). Consequently, inner high elastic part 26 and high elastic part 22 have the same (relatively low) compressibility, since they are the same material.

117. Umezawa further discloses that the relative lack of compressibility of “inner high elastic part 26” has substantial utility in the disclosed design by facilitating the transfer of force to the ground:

Even if the body weight of a golf player is applied to the bottom part 6, the inner high elastic part 26 is not deformed so much. This inner high elastic part 26 does not absorb a force transferred from the foot to the ground so much. A large amount of force is transferred from the foot to the ground through this inner high elastic part 26. This inner high elastic part 26 contributes to generation of great head speed.

EX1006, ¶39.

118. Unsurprisingly, given the importance of inner high elastic part 26 to the described invention, Umezawa specifies that it should comprise a substantial portion of the forefoot section. EX1006, ¶0049 (stating that the “width of a flat top surface of the inner high elastic part 26” is preferably at least 3mm (and most preferably at

least 10mm) but less than 25mm, so that “sufficient force is transferred from the foot to the ground”). Umezawa discloses a number of different configurations of forefoot sections in accordance with the invention but all include an interior area of high compressibility surrounded on all sides—including on the medial and lateral sides—by substantial regions of low compressibility. *See, e.g.*, Figs. 4-15.

B. Norton (EX1007) - U.S. Patent No. 7,464,428

119. Norton is generally addressed to the problem of manufacturing a sole that includes density variations to reduce the risk of knee and other injuries associated with the repetitive impacts of running sports—especially long-distance running—that are caused by pronation or supination. EX1007, 1:28-37, 3:3-24. Notably, as I discuss above with reference to EX2020, which Mr. Delgatty validated in his deposition (EX2010, 115:18-116:2), pronation and supination affect the entire foot, including the heel.

120. Norton describes a number of prior art patents intended to help reduce these injury issues and/or have manufacturing issues due to the use of multiple materials. EX1007, 1:47-2:38. These patents disclose multi-material sole units with density variations, with the density variations created through the connection or integration of multiple materials.

121. Norton heavily emphasizes the “severe disadvantage[s]” associated with these multi-material designs, particularly problems associated with interconnecting and the necessity for “increased labor consumption.” EX1007, 2:39-64. Norton proposes to have solved this problem by using a single material supplied as a preform having a thickness distribution. EX1007, 3:3-24.

122. In more detail, Norton discloses processing a sole element preform (“preform”) of a single material (EX1007, 3:9–15) having a varying thickness (EX1007, Figures 3A, 3B, 5A – 5C, 6, 7, 8, and 9) in a forming tool (conventional or as shown in Figure 10) to produce a sole element that has a uniform thickness (Figures 4A, 4B) and a specific density distribution in a traverse and/or longitudinal direction. (EX. 1007, 1:17 – 18.).

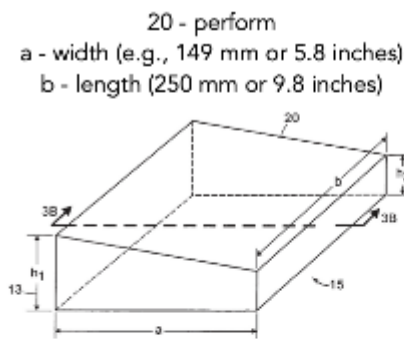


FIG. 3A

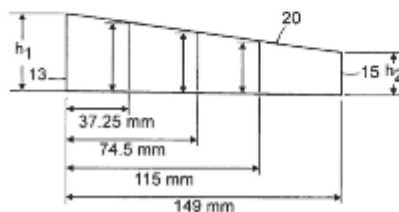


FIG. 3B

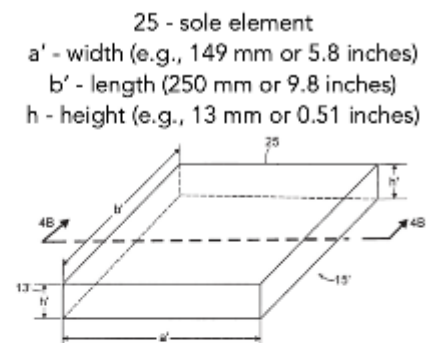
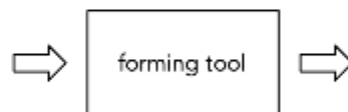


FIG. 4A

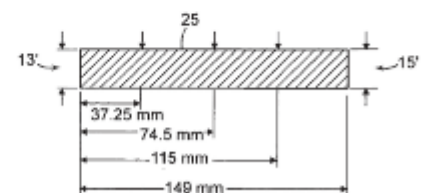


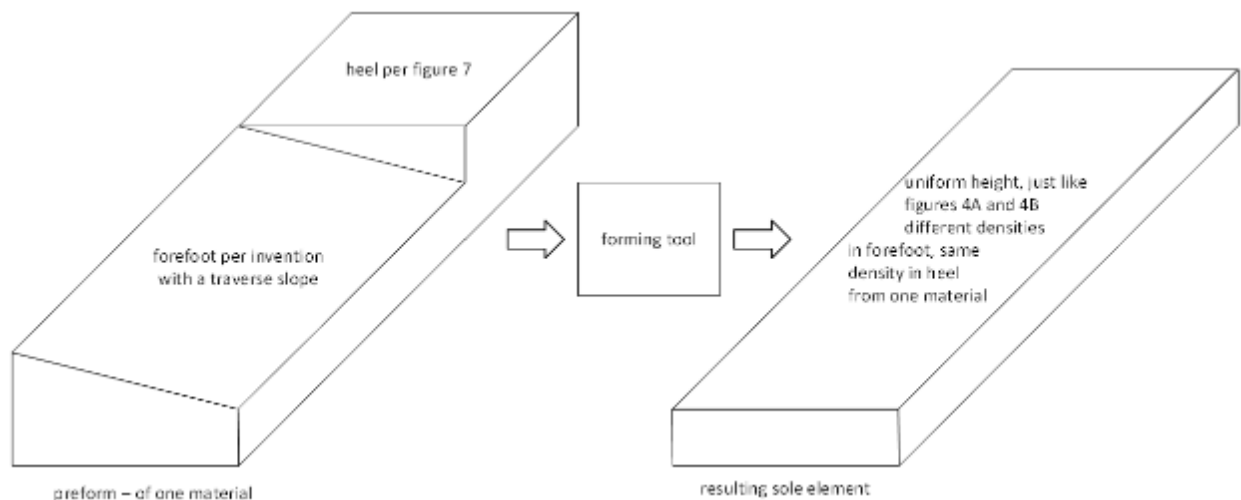
FIG. 4B

123. The resulting sole element 25 is of a single material that has a constant height along its width (a') and the same constant height along its length (b'). The resulting sole element 25 has a specific density distribution in a traverse (i.e., its width) and/or longitudinal (its length) direction. Norton discloses that the sole element is typically a midsole of a sole assembly. EX1007, 2:54-64. In other words, the sole element "typically" serves as the entire midsole, including both forefoot and heel.

124. Norton does state that it is "not necessary that the sole element extends in a longitudinal direction over the complete sole," and that "[i]t is also possible that a sole element in accordance with the invention is only used in the heel and/or in parts of the forefoot." 5:63-67.

125. A POSITA would reconcile the above statement and Norton's clear design objective of not using multiple materials for a sole element by looking at the totality of what Norton discloses. As per Figure 7, a preform can have a sloped section and an angled section. When placed in a forming tool, the preform is compressed (and may be further heated) to a sole element like the one shown in Figures 4A and 4B. When the flat surface is compressed, it has a uniform density.

126. A POSITA would reasonably interpret the statement that “the invention may only be used in the heel and/or in parts of the forefoot” by combining the disclosure of Figure 3A with the disclosure of Figure 7 to produce a preform that would look like the following.



127. As shown, the preform on the left includes the inventive concept of Norton, which is use a single material of different heights in the preform to get a constant height sole element with different densities corresponding to the different heights, in the forefoot section. As Norton also disclosed, a uniform height preform section will produce a uniform density sole element, which is used for the heel section. As such, the resulting sole element is made from one material in the heel and forefoot, where the forefoot has different densities from the inside to the outside.

128. To a POSITA, this is a much more reasonable and practical interpretation of Norton's "forefoot only" comment than Mr. Delgatty's interpretation where any heel can be used with a forefoot of Norton, including heels that have multiple materials. The multiple material heel would defeat the design of objective of Norton.

129. Based on the foregoing, in my opinion a POSITA would understand Norton to strongly teach away from implementation of the sole element only in a portion of the midsole and combine it with heel that includes multiple materials, since such a configuration would necessarily result in the very type of multi-material sole that Norton strongly criticizes. Further, there is a practical way to interpret the "forefoot only" statement of Norton and keep with the design objective of Norton as discussed above.

C. Won (EX. 1005) – U.S. Patent No. 6,158,151

130. Won is addressing the problem of creating golf shoes that are helpful in naturally transferring the center of weight to a heel portion with a user having to think about weight transfer. EX1005, 1:4-7.

131. Won discloses that a stable golf swing requires a golfer to maintain his balance and to transfer his center of weight from inside to outside of an intermediate metatarsal portion and to a heel portion while he swings to hit a ball on the grass.

EX. 1005, 1:14-18. Won further discloses that the golf shoes have characteristics that provide the golfer with a smooth swing because the center of weight is always in the heel portion (30) in an addressing stance. EX. 1005, 4:32–35.

132. Won discloses several embodiments of golf shoes with reference to Figures 2 – 5. The figures are reproduced below for convenience.

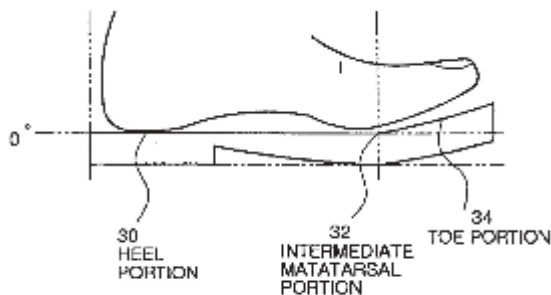


FIG. 2

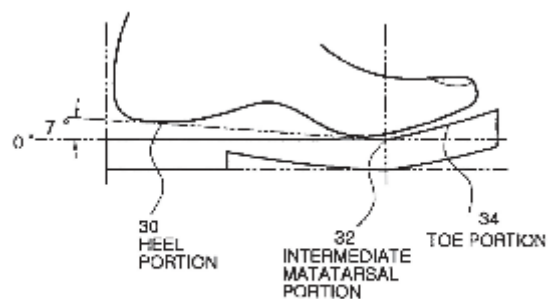


FIG. 3

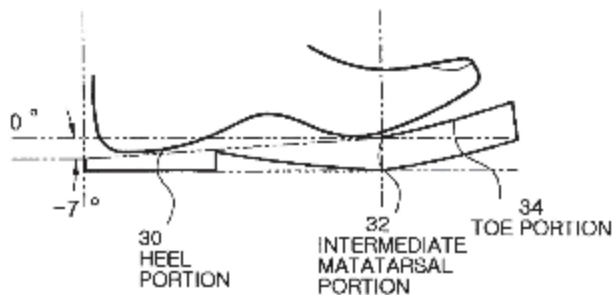


FIG. 4

133. The toe portion 34 is tilted 1° to 5° upward from a horizontal line taking said intermediate metatarsal portion (32) as pivot point. EX. 1005, 4: 8-10.

134. As shown in the embodiment of Figure 2, the heel portion 30 has no angle, is shown at the same height as the intermediate metatarsal portion 32 (i.e., ball of foot), and is shown lower than the toe portion 34.

135. The embodiment of Figure 3 is similar to the embodiment of Figure 2 except for the heel portion. In this embodiment, the heel portion has a 7° slope, which extends to the intermediate metatarsal portion 32. EX. 1005, 3:41–43.

136. The embodiment of Figure 4 is similar to the embodiment of Figure 2 except for the heel portion. In this embodiment, the heel portion has a -7° slope, which extends to the intermediate metatarsal portion 32. EX. 1005, 3:53–55.

137. Won's Figure 5, shown below, has very different focus. Figure 5 depicts a view of the bottom of a golf shoe, from the perspective of someone looking directly at the bottom of the shoe from underneath. According to Won, "golf shoes can be formed such that the inside surface and outside surface separated by a central longitudinal axis of the sole (or mid sole) are different from each other." EX. 1005, 4:47 – 49.

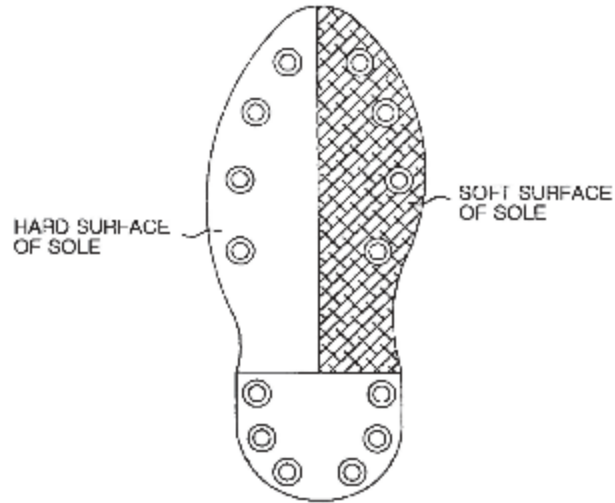


FIG. 5

138. Won further states as follows:

The inside surface is soft surfaced and outside surface is hard surfaced, both of which are made from elastic materials. When a golfer puts his both feet together to take a stance for swing, the spikes fitted on the part of the soft surface are pressed down because they are fixed on soft surface. But spikes formed on the hard surface remain the same position so that the sole is tilted toward the soft surface. Therefore the pair of shoes facing each other can be easily tilted to the insides of the shoes.

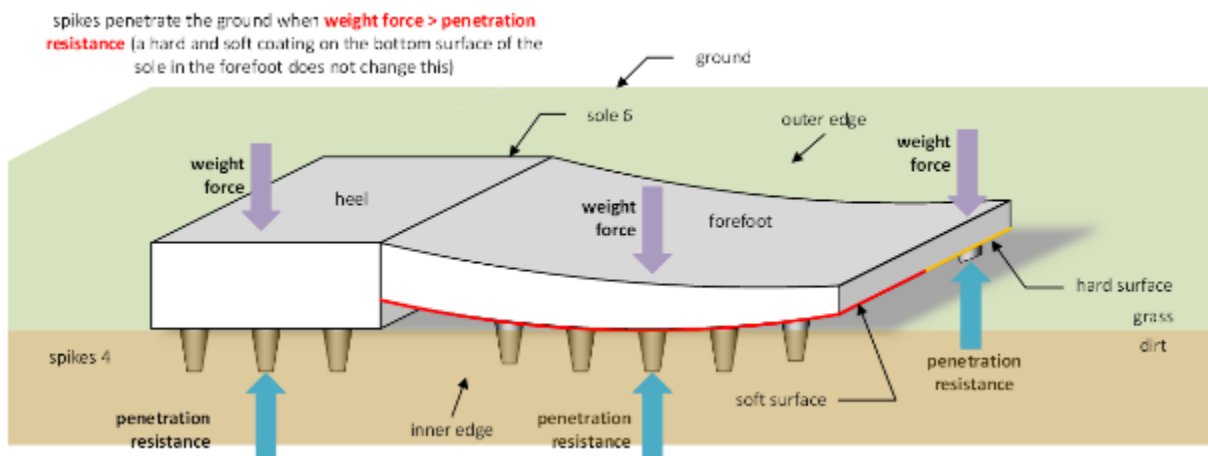
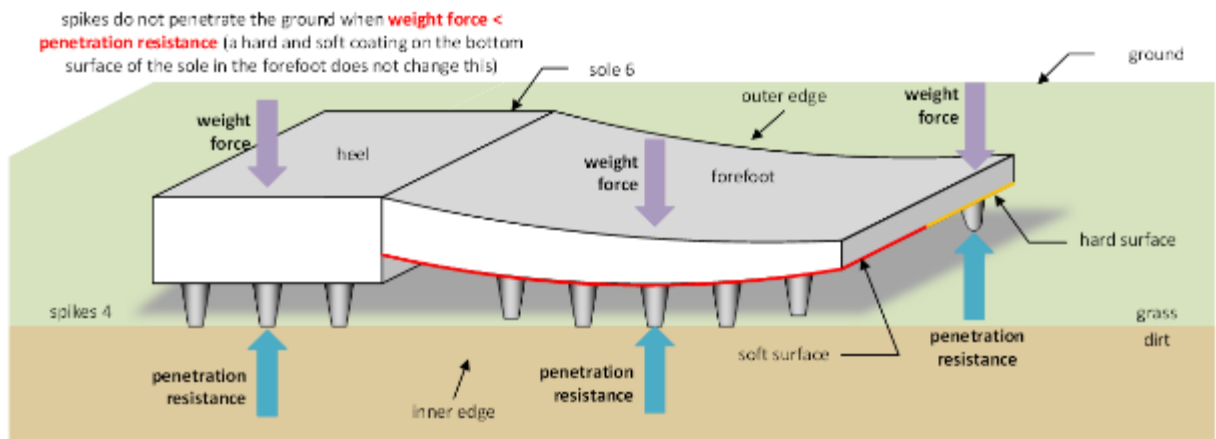
EX1005, 4:49-58.

139. Of note, Won is describing in this embodiment the exterior “surface” of the shoe to which the spikes “are fixed,” not the sole. A POSITA would understand this reference to “surface” as a reference to the exterior coating of outsole, which has negligible thickness. This embodiment thus does not discuss the structure of any forefront platform or any material of which it is constructed. Indeed,

Won is silent as to the identify of any of the materials used to construct either the heel or the forefoot platform.

140. The principle of operation that Won describes with respect to Figure 5 does not involve compression. Instead, according to Won, the spikes “fitted on the part of the soft surface are pressed down because they are fixed on soft surface.” The spikes “formed on the hard surface remain in the same position,” with result being that “the sole is tilted toward the surface.” Thus, by its own terms Won’s principle of operation does not involve compression of the forefoot platform; instead, Won claims that differences in the characteristics of the exterior surfaces will affect the transfer of downward pressure, such that the inside spikes penetrate the ground while the outer ones do not. Thus, Won claims to generate tilt by altering the position of the entire shoe relative to the ground (because of the interior spikes penetrating while the outer ones do not as a result of the soft and hard surfaces), rather than altering the position of the foot within the shoe.

141. The following diagrams illustrate how the surfaces have no effect on the spikes penetrating the ground.



142. As shown above and from a physics perspective, spikes penetrate the ground when the pressure of the spike applied to the ground overcomes the ground's penetration resistance. The penetration resistance is a function of the hardness of the ground and the area of the spike contacting the ground. A sharper spike equates to a smaller contact area with the ground, which reduces the penetration resistance.

143. The pressure applied to the spike comes from the weight force. When the weight force applied to the spike is sufficient to overcome the penetration resistance, the spike will start to penetrate the ground. The bottom surface of a sole, whether hard or soft, has no effect on the penetration of the spikes into the ground since a surface has no appreciable thickness.

144. Strictly for the sake of argument since Won provides no disclosure to support such an assumption, assume that the hard surface and the soft surface have an appreciable thickness. The soft side would absorb more of the weight force than the hard side, thus the spikes on the hard side would penetrate the ground more than on the soft side. This produces the opposite of what Won described.

145. In my opinion, Won's discussion of the spikes penetrating the ground differently based on a soft surface or a hard surface does not make sense from a physics standpoint as discussed above. A POSITA should understand this and should treat Won as a non-credible piece of prior art.

D. Gallas (EX1020) - U.S. Patent Publication No. 2010/0242307

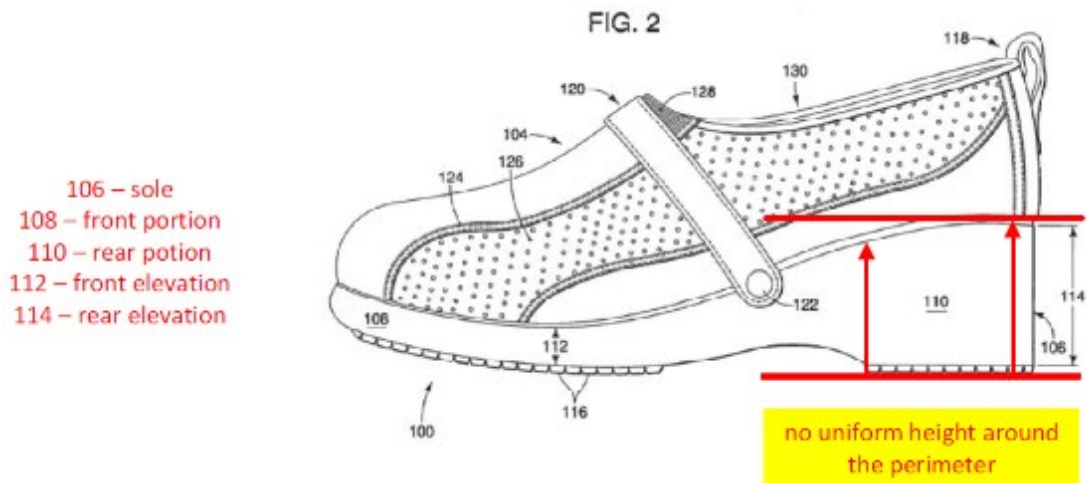
146. Gallas is directed to and claims a "golf shoe." EX1020, Abstract. Gallas states the following regarding the described shoe:

With the shoe FIG. 2, 100 the golfer may improve over a standard golf shoe, the ability to maintain a more effective weight distribution (e.g., weight on the heels during upswing and on the toes during downswing), spine angle, and knee flex during the set up and throughout the golf swing. For example, as

the body turns into the backswing and the weight shifts back into the heels of the foot, the elevated heel of the shoe FIG. 2, 100 may create a solid foundation for the golfer's weight. The angle of the shoe, slanting down from the back to the front, may facilitate weight transfer from the heels to the toes at impact. The elevation and support provided by the shoe may compensate for any lack of flexibility, strength, and/or consistency in, for example, amateur players, older players, less athletic players, and others.

EX1020, ¶17.

147. Notably, as shown in the two annotated versions of Figure 2 below, Gallas' heel portion, referred as the "rear portion" is not substantially uniform in height and instead slopes downward toward the toe.



EX1020, Fig. 2 (annotated).

148. Gallas describes this slope, stating that the rear portion "slant[s]down from the back to the front" to "facilitate weight transfer from the heels to the toes at impact." *Id.*, ¶0017.

E. Talarico '911 (EX. 1008)

149. U.S. Patent No. 4,642,911 to Talarico (“Talarico ’911”) is titled “Dual-Compression Forefoot Compensated Footwear.” EX1008, Title; Abstract. As relevant to the obviousness theories in the petition, Talarico ’911 is directed to a dual-material sole unit designed to prevent excess pronation or supination. EX1008, 10:19-29. Talarico’s focus is on the forefoot portions of the footwear and it provides no meaningful disclosure regarding the heel section. The examiner expressly cited and considered Talarico ’911 during prosecution of the ’768 patent, and found the claims patentable over it.

F. Conventional Shoes

150. 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). (EX. 1002. pages 23 – 31)

151. 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. (EX. 1002, ¶55)

152. 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.

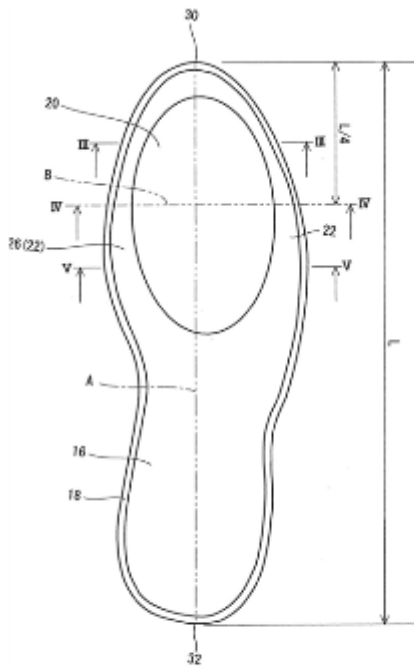


Fig. 2

[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 FIGS. 3 to FIG. 5, the left side direction indicates an inside direction and the right side direction indicates an outside direction.

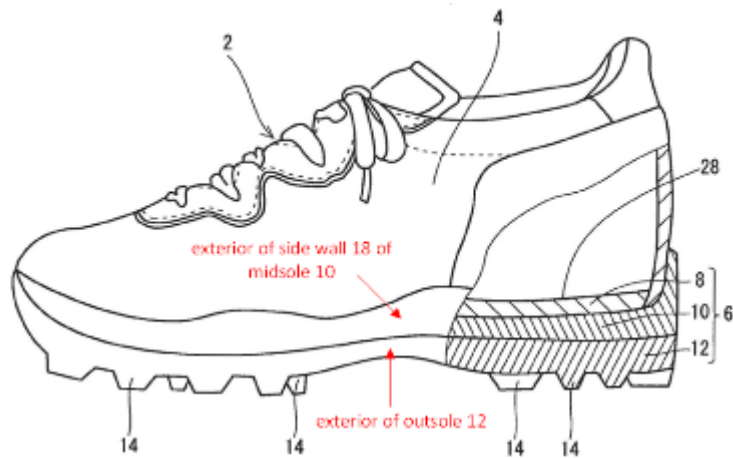


Fig. 1

[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.

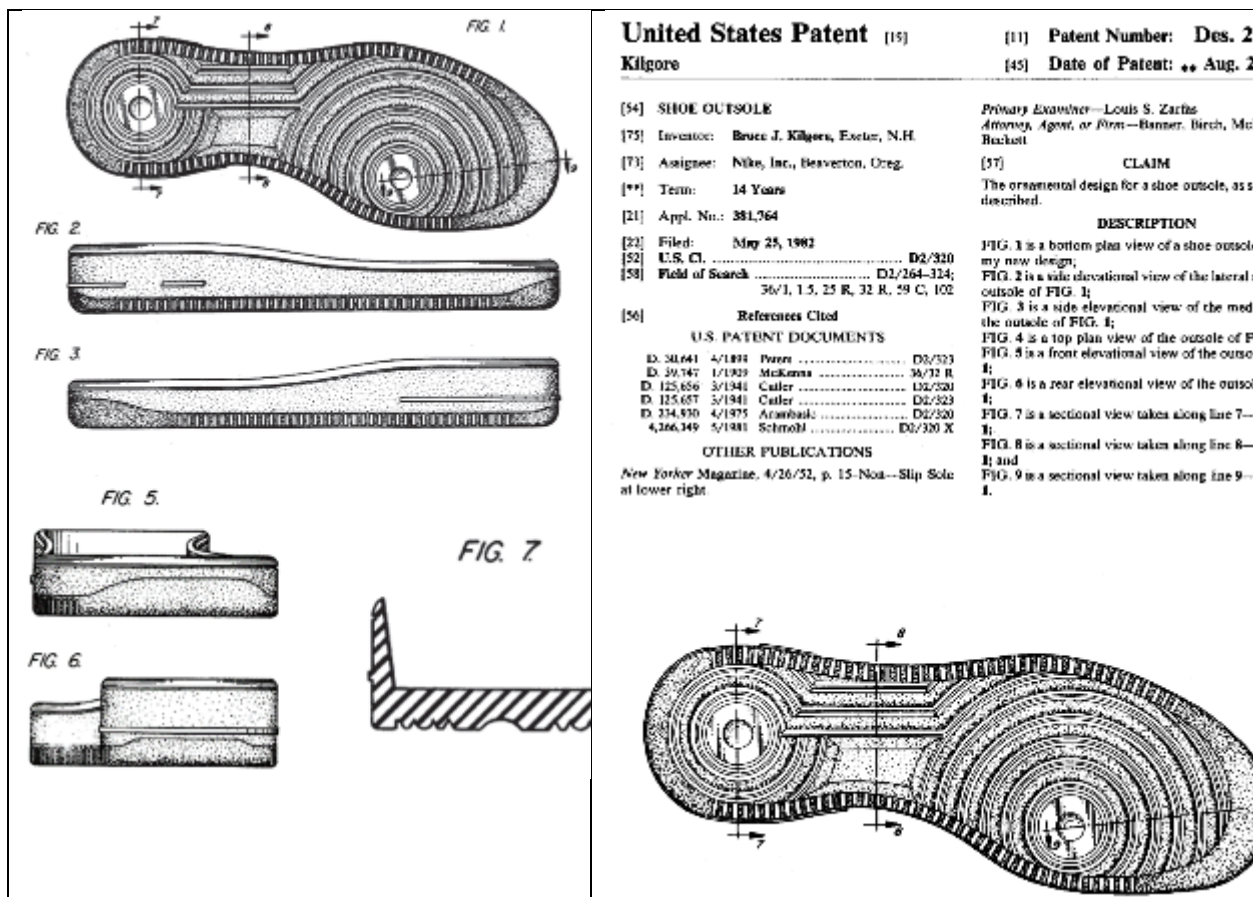
153. Clearly, from the example of Umezawa, the exterior of the wall 18 of the midsole 10 and the exterior of the outsole 12 as shown in Figure 1 before the cut-away section (forefoot) provide no information regarding the internal structure of the sole, which is shown in the cut-away section of the heel.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

154. 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.

155. In paragraph 58 of his declaration, Mr. Delgatty states that: “A heel platform that is substantially uniform in height throughout, including around the heel platform’s perimeter, and a sole that is thicker at a position proximal to the front edge of the heel platform than at the toe portion, 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 having a substantially uniform heel platform on both the inside and the outside of the shoe.” (Ex. 1002, at 28 emphasis added).

156. After paragraph 58, 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:

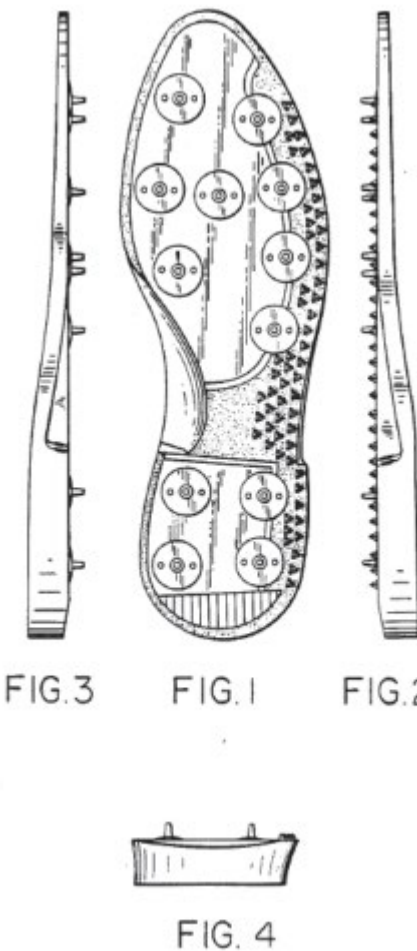
Figures Provided by Mr. Delgatty	Front Page of the Design Patent
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157. The right side of the above table includes a copy of the upper portion of the first page of design patent D275,146. The title for design patent D275,146 is a “SHOE OUTSOLE,” not a sole as Mr. Delgatty states in paragraph 58.

158. In paragraph 60 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.” (Ex. 1002, at 31 emphasis added).

159. After paragraph 60, 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 Peterson [45] Date of Patent: .. S [54] GOLF SHOE BOTTOM [57] CLAIM The ornamental design for a golf shoe bot 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 Dussler 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. <i>Primary Examiner</i>—Louis S. Zarfas <i>Attorney, Agent, or Firm</i>—Donald Brown FIG. 1 is a bottom plan view of a golf showing my new design; FIG. 2 is a side elevation of the left side FIG. 3 is a side elevation of the right side FIG. 4 is an end elevation of the heel end FIG. 5 is an end elevation of the toe end FIG. 6 is a bottom plan view of a golf 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 showing a third embodiment of my new design; FIG. 12 is a side elevation of the left side FIG. 13 is a side elevation of the right side 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 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 FIG. 20 is an end elevation of the toe end The top is unornamented. 

160. 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 60.

161. 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 certainly do not provide any evidence that a conventional heel platform has a uniform height around its perimeter.

162. Based on the foregoing, Mr. Delgatty has clearly failed to establish that a heel platform as claimed in claim 1 is a conventional feature of a shoe.

XI. PETITIONER AND MR. DELGATTY DO NOT SHOW THAT ANY CHALLENGED CLAIM WOULD HAVE BEEN OBVIOUS

A. Petitioner and Mr. Delgatty Offer No Unpatentability Theory That Explains How the “First Material” of the Heel Platform is Different From the “Second Material” of the Forefoot Platform

163. I saw no argument or analysis in the Petition or Mr. Delgatty’s declaration to the effect that any prior art reference discloses the “first material having a first compression factor” or “second material having a gradient compression factor” limitation under the correct construction under which the materials must be different. Instead, the Petition and Mr. Delgatty did not address

the issue of if and how the “material[s]” relied upon were different, because (as discussed above in the claim construction section) they expressly applied a construction under which they were the same. Since neither the Petition nor Mr. Delgatty made any contention, express or implied, that the challenged claims are unpatentable under the correct construction, the Petition and Mr. Delgatty have failed to show that claims 1-5 and 8 are obvious in view of the relied upon prior art. The following further substantiates that claims 1-5 and 8 are not obvious in view the relied upon prior art.

B. Mr. Delgatty’s Opinions Regarding “Conventional” Shoes Are Unfounded and Unreliable

164. A large portion of Mr. Delgatty’s declaration is devoted to opinions about various features of “standard” or “conventional” athletic shoes. I have reviewed these opinions and find them to be lacking in technical rigor and objective, verifiable factual support. I note that the Petition relies heavily on Mr. Delgatty’s opinions in making assertions about what a POSITA would have known and understood that I think are unsupported. *See, e.g.*, Petition at 23, 40, 55, 60, 66.

165. According to Mr. Delgatty “[a] POSITA would understand that shoes in general, including athletic shoes and golf shoes, have several traits and features that are ‘conventional’ or ‘standard.’” Ex.1002 ¶ 61. He goes on to state that “[t]hese

conventional design traits include a heel platform that is substantially uniform around its perimeter” and “also include a forefoot platform wherein, at the outer edge, the thickness at a position proximal to the heel platform is greater than the thickness at the toe portion.” *Id.* ¶¶61-62. I disagree that either of these “design traits” were conventional, and find the evidence Mr. Delgatty relies upon to be unpersuasive and not probative of the points for which Mr. Delgatty relies on it.

166. One striking feature of Mr. Delgatty’s declaration is that much of the evidence he relies upon is simply pictures of the outside of six shoes. *See generally* EX1002, ¶¶63-65, 67. The pictures of the six shoes only include the exterior of the shoes—there are no images of the inside of the shoes.

167. The pictures do not include any annotations regarding what part of the shoes correspond to a heel platform or a forefoot platform. Nor do the pictures or related descriptions include any measurements of any kind that would show either that the heel platform has uniform height around the perimeter, or that the forefront platform is thicker proximal to the heel than near the toe. Mr. Delgatty simply asserts that the shoes have these features, but he does not even begin to prove that.

168. These pictures do not establish anything meaningful about the interior design of the shoe because it was well understood by POSITA that the exterior of a sole (midsole and outsole) does not provide any insight into the internal structure of

the sole within which a foot sits. Shoe designers routinely include ornamental features in shoe outsoles that are not reflective of the internal structure of the shoe. Mr. Delgatty correctly acknowledged this point in his deposition. EX2010, 37:3-13 (“[T]ypical athletic shoes have lots of variability on what that [exterior] top silhouette line would look like. It has no bearing on where the actual foot sits inside the shoe where the top of the midsole would be.”); 35:5-21; 35:22-36.

169. Ironically, one of the prior art references that Mr. Delgatty relies upon, Umezawa (EX1006) illustrates this point very well. Figure 1 of Umezawa (annotated below) shows a cut-away of the heel section. 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.

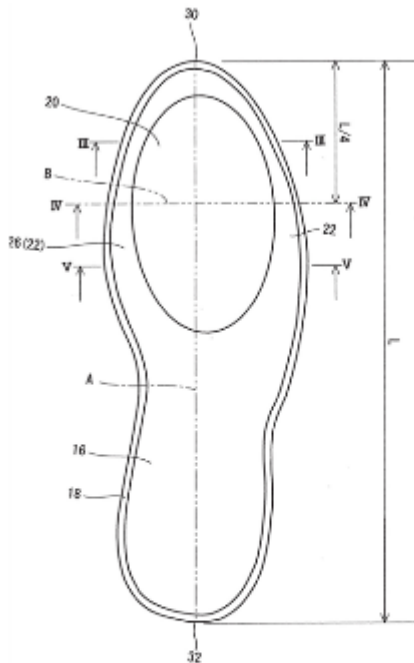


Fig. 2

[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.

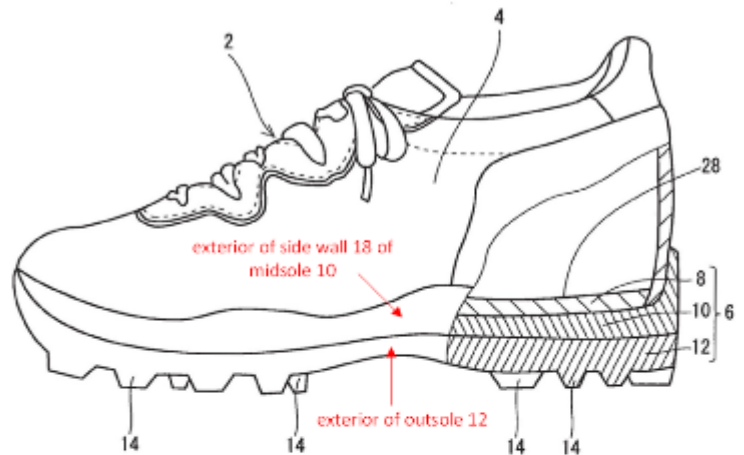


Fig. 1

[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.

170. Clearly, from the example of Umezawa, the exterior of the outsole and side walls of the midsole provide no information regarding the internal structure of the sole.

171. If Mr. Delgatty were correct in assuming that the exterior appearance of shoes can be used as a reliable proxy for interior structure and dimensions, then the evidence he cites only undercuts his claims about conventional design “traits.” This is apparent from the Vans shoe images Mr. Delgatty relies upon, which show a

noticeable downward slope with a non-uniform height in the heel platform (again, assuming that the exterior outsole can be used as a proxy for the insole, which it cannot).



EX1002, ¶63 (annotated).

172. Mr. Delgatty’s images also contradict his argument that relies upon it was “standard” or “conventional” for the portion of the forefoot platform proximal to the heel platform to be thicker than at the toe portion:



Toe portion thicker than area proximal to heel

EX1002, ¶63 (annotated);

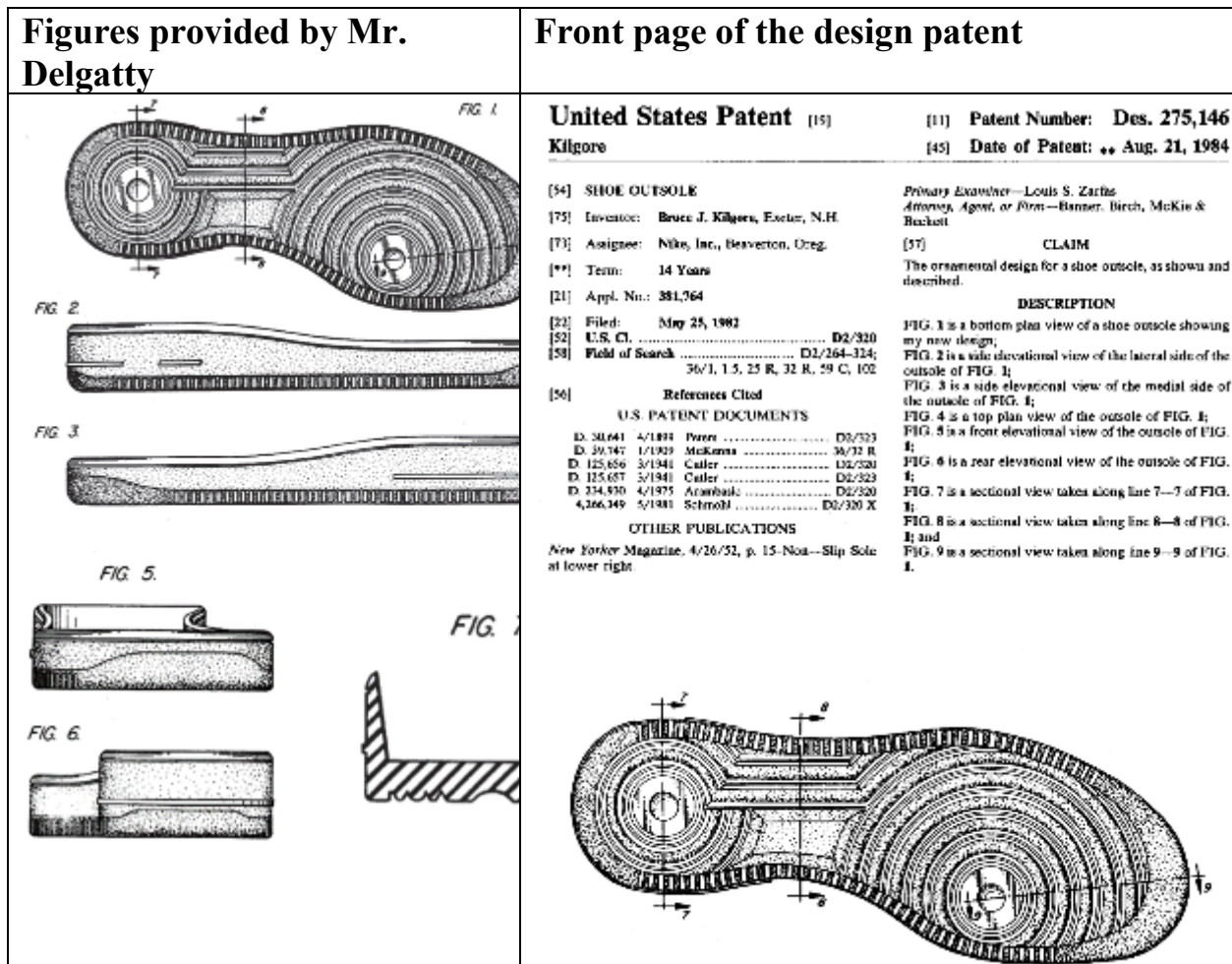


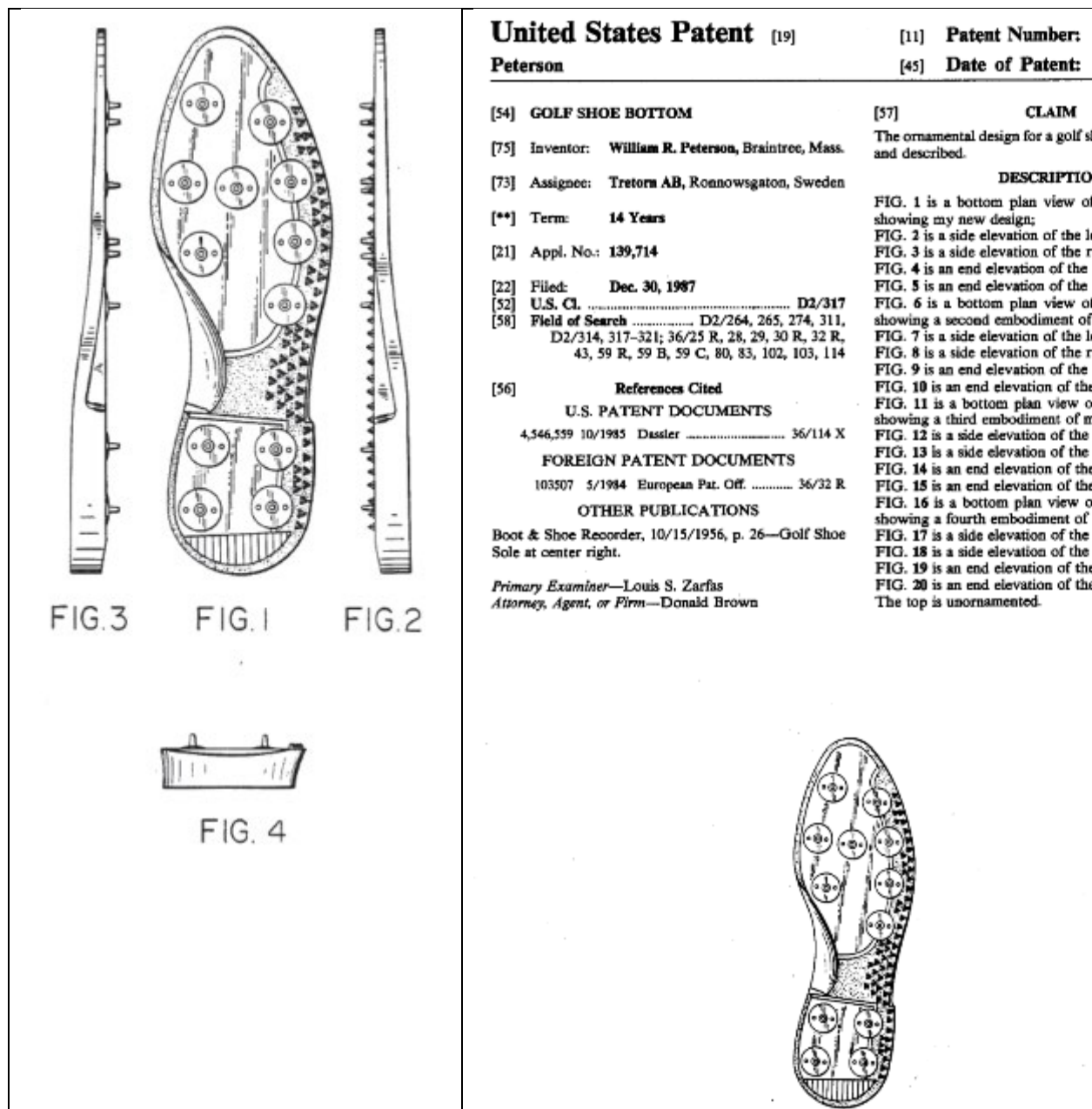
No appreciable difference between thickness proximal to heel and toe

EX1002, ¶67 (annotated).

173. Mr. Delgatty’s citations to design patents do not prove anything about what was “standard” or “conventional” with respect to shoe design. EX1002, ¶¶66, 68. Contrary to Mr. Delgatty’s suggestion that these design patents are directed to

the “soles,” of a shoes; the title page of each design patent (which Mr. Delgatty omitted) shows that they are directed to a “Shoe Outsole” and a “Golf Shoe Bottom” respectively. Both design patents do not include the midsole, which is part of a heel platform.

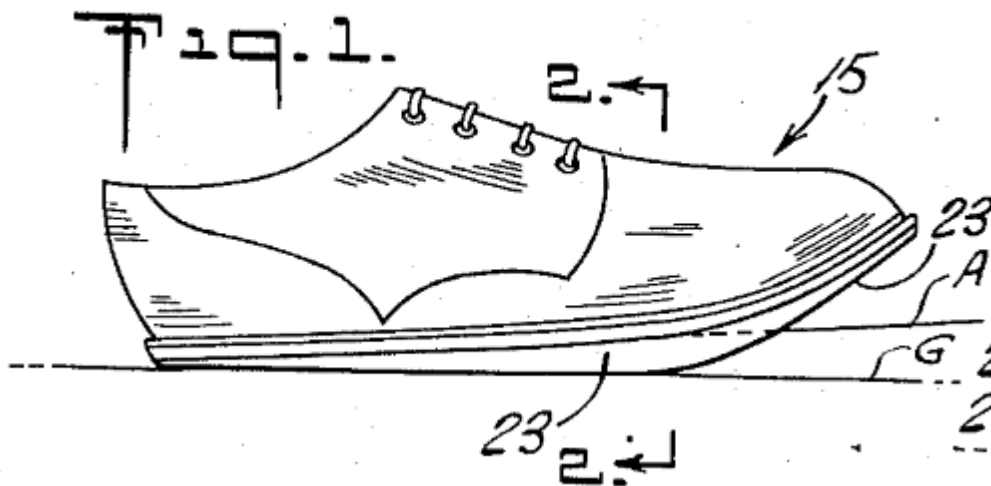




174. Because the design patents are only for the outsole of the shoe and do not include the midsole, they provide no evidence or inference as to whether conventional heel platforms have substantially uniform height heel perimeters or

thicker forefoot platforms proximal to the heel than the toe. From the pictures of the exterior of six shoes and from the two design patents for outsoles, a POSITA would not understand that all “conventional” shoes have the same traits regarding the heel and the relationship between the heel and the toe.

175. Won further demonstrates that the relationship between the height of the heel section and toe section is not fixed to where the toe section is conventionally lower than the heel section. This assertion is further support by figure 1 of U.S. Patent 2,847,769, which was cited as admitted prior art by Rubin (U.S. Patent 3,789,523). Rubin was relied upon by the Petitioner and Mr. Delgatty is three other IPRs between the parties. As shown in Figure 1, the heel is lower than the toe.



176. The reality is that athletic shoe designers had a wide variety of both external and interior designs to choose from and a variety of factors influence the design, including ornamental design and branding, cost, functional characteristics,

intended use, and many others. Far from showing the existence of any standard or conventional traits, Mr. Delgatty's images and other evidence underscore the wide variety of disparate design options available. It is notable that Mr. Delgatty does not actually rely on *any* of the shoes he uses as examples of "conventional" designs—or publications depicting them—as prior art for obviousness purposes. It is reasonable to infer that this is because there is insufficient evidence that these shoes in fact had the claimed "conventional" traits.

177. Mr. Delgatty's opinions are also unreliable because they are characterized by glaring internal contradictions. For example, as noted above, Mr. Delgatty makes an unambiguous assertion that "Umezawa also discloses that the novel midsole has a consistent thickness throughout, which includes the heel platform, as shown in Figs. 2-4." EX1002, ¶43. He also confirmed as much in his deposition. EX2010, 113:8-10 (agreeing that "Umezawa's midsole has a consistent thickness throughout"). This assertion about "consistent thickness" is essential to Mr. Delgatty's theory that Umezawa discloses a substantially uniform height heel platform (as I discuss more later, this theory is based unwarranted assumptions).

178. Later in his analysis, however, when addressing the final limitation of claim 1 of the '768 Patent, Mr. Delgatty reverses course and states that the same Umezawa reference "would teach and or suggest to a POSITA that the sole is thicker

at a position proximal to the front edge of the heel platform than at the toe portion.” EX1002, ¶75. There is no reasonable way to reconcile these assertions. Either Umezawa has “consistent thickness throughout” or it is thicker proximal to the heel than at the toe. Both cannot be true.³

179. It is also notable that Mr. Delgatty claims that several other references he relies upon teach soles with “consistent thickness throughout.” EX1002, 56 (Norton), ¶60 (Talarico ’911). This underscores that it was simply not conventional,

³ I understand that during his deposition attempted to explain the contradiction by saying that what he really meant was “consistent thickness... from the inside to the outside perpendicular to the length of the shoe.” EX2010, 113:20-114:19. But that does not resolve the contradiction because Mr. Delgatty argues that Umezawa’s heel is consistently thick longitudinally as well in order to read it on the limitation requiring a “substantially uniform” heel platform around the perimeter. *See* EX1002, 37-39. Next Mr. Delgatty rationalized (contradicting the text of his declaration) that the opinion applied only to the heel platform and not the entire midsole. EX2010, 114:20-115:6. But Mr. Delgatty’s theory that Umezawa discloses the claimed heel platform is based on an (unwarranted) assumption that the “consistent thickness” of Umezawa’s forefoot extends to the heel.

as Mr. Delgatty incorrectly claims, for the forefoot platform to be thicker near the heel platform than at the toe.

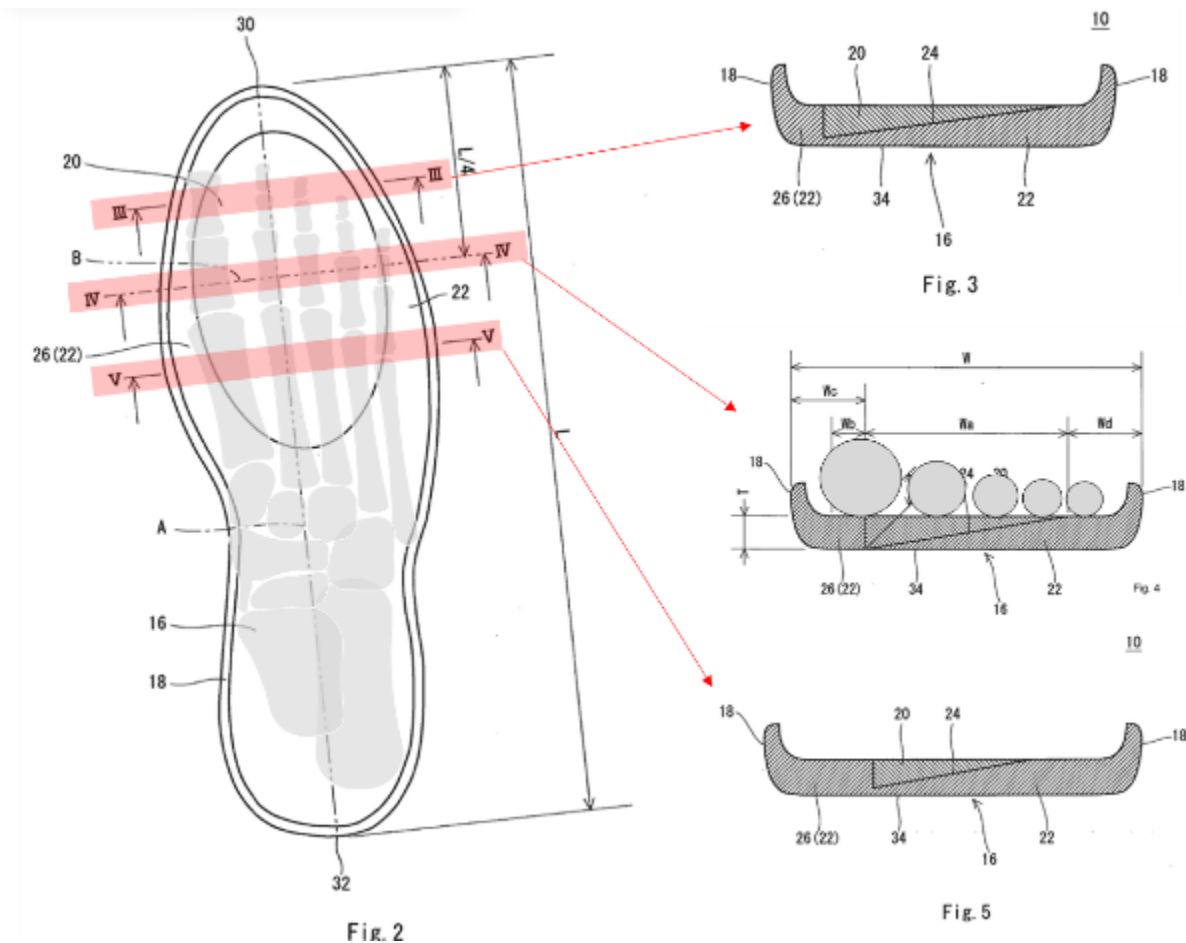
C. Mr. Delgatty and Petitioner Do Not Demonstrate that Umezawa Alone or Umezawa in view of Gallas Renders the Challenged Claims Obvious (Grounds 1 and 2)

1. Umezawa does not disclose “a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed of a second material having a gradient compression factor” or greater level of compression “near an inner edge” than “near an outer edge” (limitation [1.4])

180. Umezawa clearly does not disclose a “gradient compression factor” under Petitioner’s proposed construction because Umezawa’s forefoot section does not become increasingly less compressible from the inner edge to the outer edge.

181. Instead, as I discuss above in my summary of Umezawa, compression is the same at and near the inner and outer edges because Umezawa’s midsole is constructed of the less compressible “high elastic part 22,” which Umezawa refers to as “inner high elastic part 26” when on the interior of the shoe, both at and near the inner and outer edges of the midsole (and throughout a significant region around and near the inner and outer edges). EX1006 ¶0037 (“The high elastic part 22 is also located to the inside of the low elastic part 20. A high elastic part 22 which is located to the inside of the low elastic part 20 is hereinafter referred to as ‘inner high elastic part 26’.”); Abstract (“An inner high elastic part 26 is located to the inside of a low

elastic part 20.”); *see also id.*, ¶¶0061 (“The high elastic part 56 is located to the outside of the inclined surface 58. An inner high elastic part 60 is located to the inside of the low elastic part 54.”), 0063, 0065, 0068, 0072, 0077, 0078 (“The high elastic part includes an inner high elastic part.”), 0083.



182. As shown above in annotated Figures 2-5, the inner high elastic part 26 supports the inner edge of the foot. At the cross section of Figure 3, the inner high elastic part 26 supports the distal phalange bone (tip of the big toe), in Figure 4, the

inner high elastic part 26 supports the proximal phalange bone of the big toe; and in Figure 5, the inner high elastic part 26 supports the first metatarsal (ball of foot).

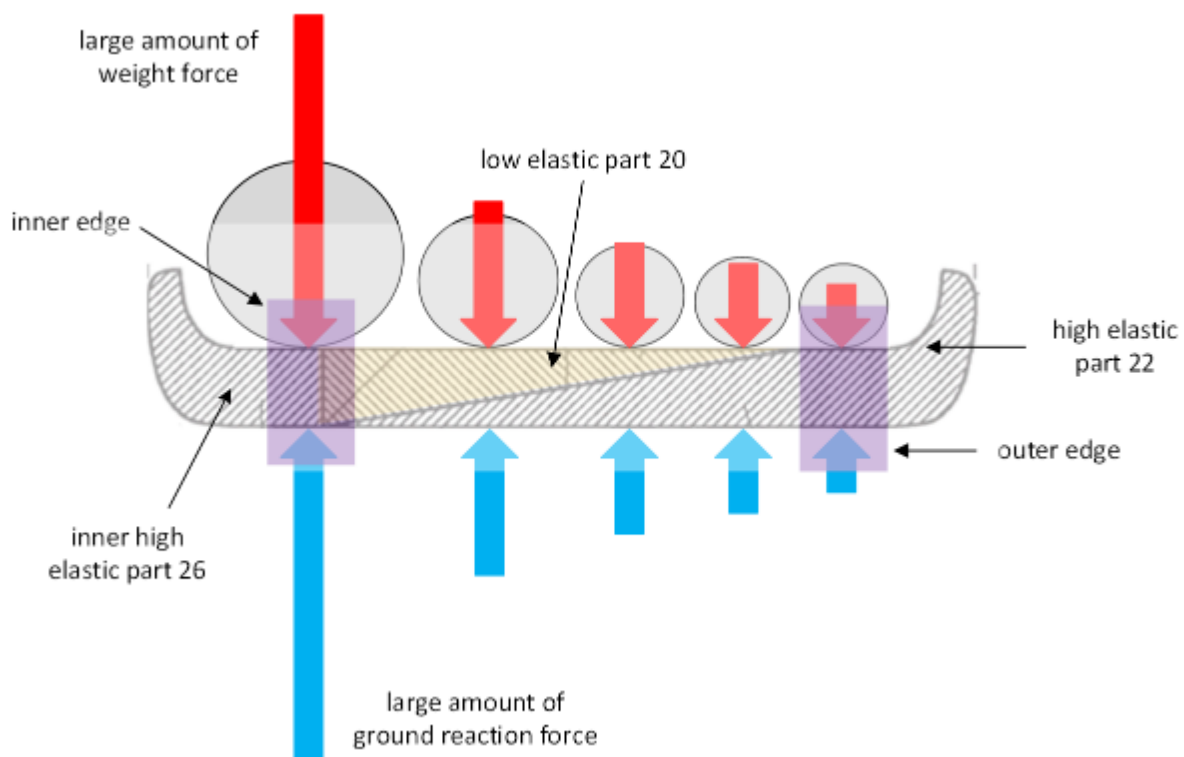
183. With reference to Figure 4 (and others like it) there is a region where low elastic part 20 overlays the high elastic part. However, this overlap does not extend to the inner edge of the sole where it engages with the inner edge of the foot and to the outer edge of the sole where it engages with the outer edge of the foot.

184. Nor does it extend “near” or “proximal to” the inner and outer edges. Instead, there is a substantial gap—at a minimum 3mm and preferably much more—between any region that includes low elastic part 20 and the inner or outer edge. EX1006, ¶0049 (stating that the “width of a flat top surface of the inner high elastic part 26” is preferably at least 3mm (and most preferably at least 10mm) but less than 25mm, so that “sufficient force is transferred from the foot to the ground”). In the context of Umezawa’s full disclosure, no POSITA would consider this any portion of the forefoot that includes low elastic part 20 to be “near” or “proximal to” the inner or outer edge.

185. Further, as I noted above, Umezawa makes clear that the inner zone of less compressibility created by inner high elastic part 26 (and similar inner high elastic zones in other embodiments) is crucial to the invention because it promotes transfer of force to the ground. EX1006 ¶¶ 0039, 0062 (“The inner high elastic part

60 does not absorb much of the force transferred from a foot to the ground.”). Umezawa thus teaches away from progressively decreasing compressibility (from the inside edge to the outside), because it teaches that compression at the inside and outside should be at the same low level.

186. Umezawa states that a large amount of force is transferred from the foot to the ground through this inner high elastic part 26 and that the inner high elastic part 26 contributes to generation of great head speed. (EX. 1006, ¶39, emphasis added)



187. The above annotated Figure 4 illustrates the importance of the inner high elastic part 26 in the interaction between the weight force and the ground reaction force. As stated by Umezawa, the inner high elastic part transfers a large amount of force to the ground, which is represented by the large red arrow, which is produced by the inner edge of the foot (i.e., the big toe and the inner ball of foot). The large blue arrow is the correspondingly large ground reaction force. The other red and blue arrows are forces for the remainder of the foot, but are less than the large amount of force that traverses through the inner high elastic part.

188. The above annotated Figure 4 further shows inner and outer edges, which is where the edges of a foot interacting with the sole of a shoe. Since the inner high elastic part 26 supports a large amount of force and it is on the inside edge of the sole, it has to be part of the inner edge where the foot interacts with the sole.

189. As such, Umezawa discloses, from the inner edge to the outer edge of a sole, it starts with the inner high elastic part 26 then to low elastic part 20 and then back to a high elastic part 22. Thus, the sole of Umezawa compresses to the same level near the inner and outer edges due to the high elastic part 22 on both the inside and outside of the sole and therefore neither discloses a gradient compression factor, nor the claimed increased level of compression near an inner edge as compared to the level of compression near an outer edge.

190. Remarkably, Mr. Delgatty does not even mention paragraph 0039 or other disclosures in Umezawa regarding the importance of the inner high elastic part. Nor does he provide any explanation for how Umezawa could disclose a “gradient compression factor” under Petitioner’s construction of the term. Nor could he because, for all the foregoing reasons, it does not.

2. Mr. Delgatty and Petitioner do not show that Umezawa discloses a “heel platform having a first height that is substantially uniform around a perimeter of the heel platform” and Gallas does not cure this problem (limitation [1.3])

191. As discussed below, Mr. Delgatty uses a mix and match of midsole, insole, and outsole of Umezawa to support his argument that the heel of is a uniform height at its perimeter. In contrast, he only uses the midsole of Umezawa for his analysis of the forefoot as discussed above.

192. On page 39 of his declaration, he annotates Figure 1 as an attempt to show that, from a side view, Umezawa discloses a uniform height at its parameter as shown below.

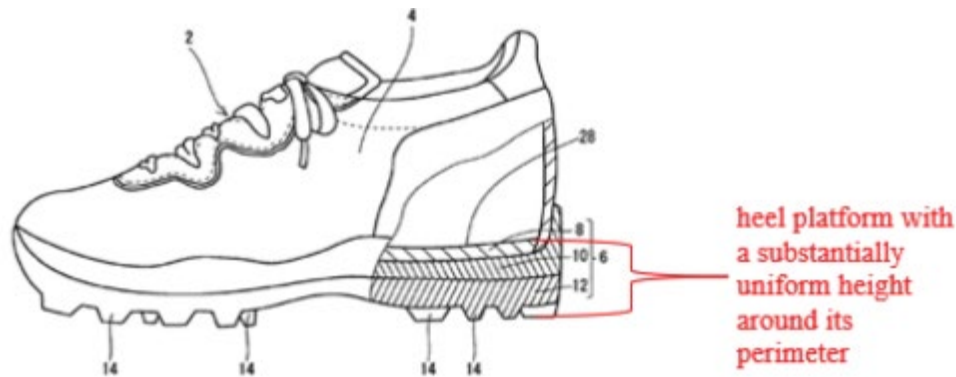
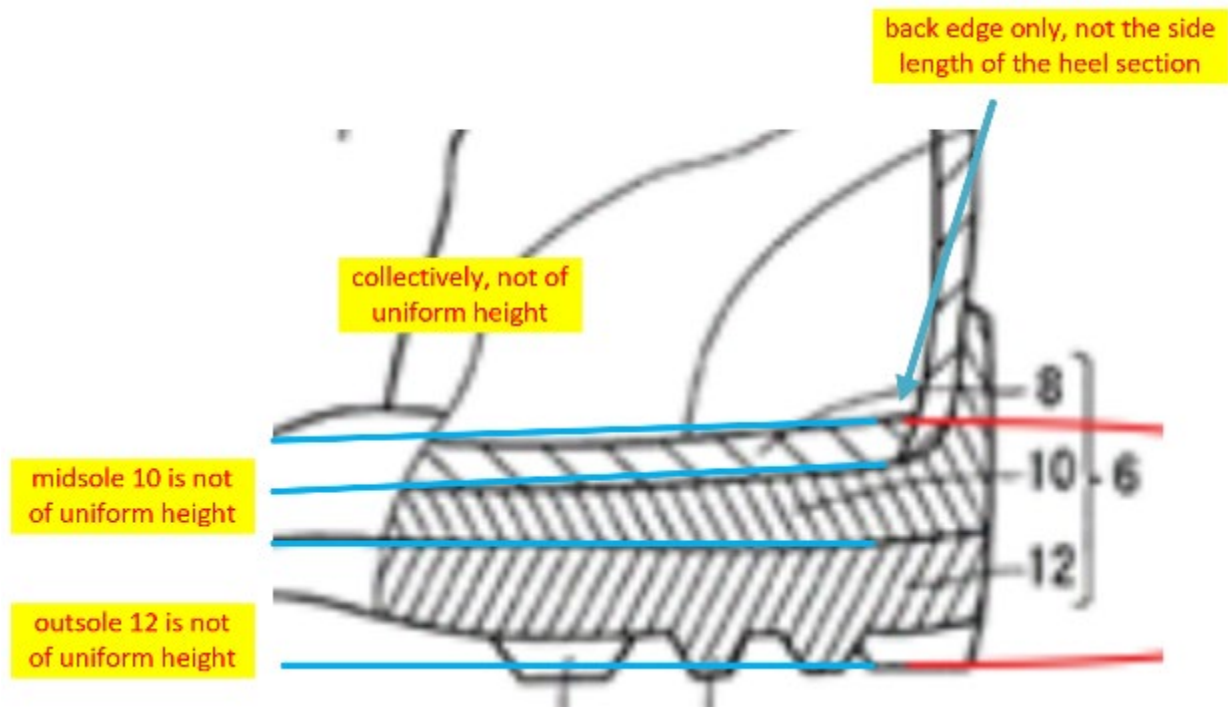


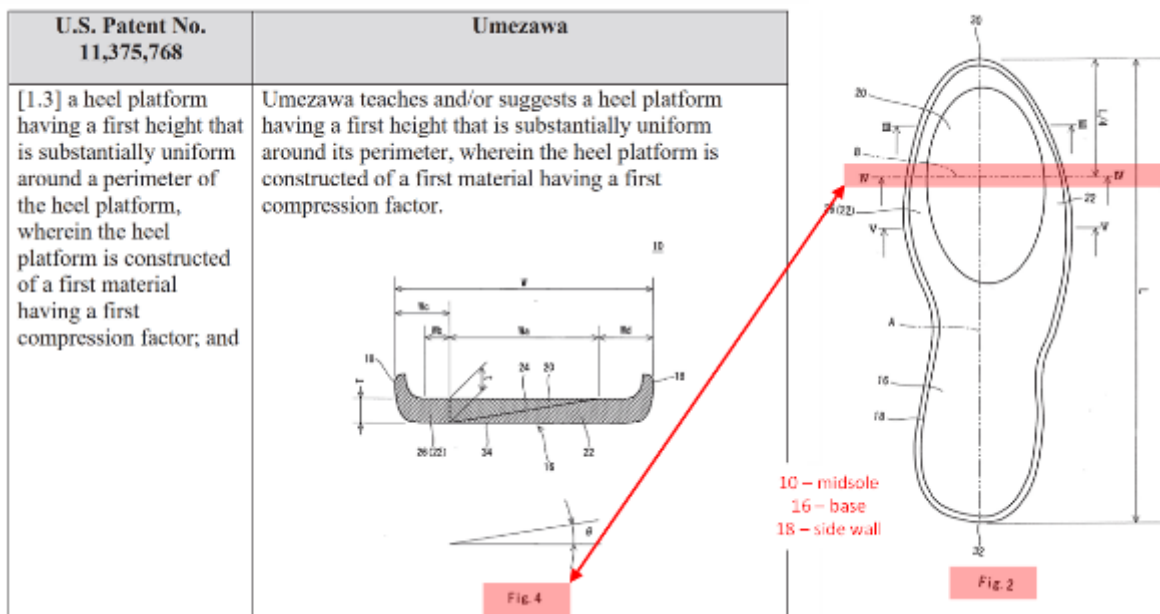
Fig. 1

193. Yet, on a closer look, the heel platform of an insole, midsole, and outsole are not of a substantially uniform height along its side as shown in the annotated version of the above figure 4. My annotations are the blue lines and the yellow highlighted text.



194. As is further shown, the midsole 10 and the outsole 12 are not shown to have a substantially uniform height from the back end of the heel to front of the heel. As such, from a side perspective, Umezawa does not show a substantially uniform height as alleged by Mr. Delgatty.

195. Mr. Delgatty relies on Figs. 2-4 for his assertion “that the novel midsole has a consistent thickness throughout, which includes the heel platform, as shown in Figs. 2-4.” EX1002, ¶ 43. But Umezawa expressly identifies Figs. 2-4 as cross-sections of the forefoot and never suggests that they are representative of the heel. *See* EX1006, ¶¶0017-0019 (explaining that Figs. 2-4 are cross-sectional views of particular lines in Fig. 2, all of which are in the forefoot section).

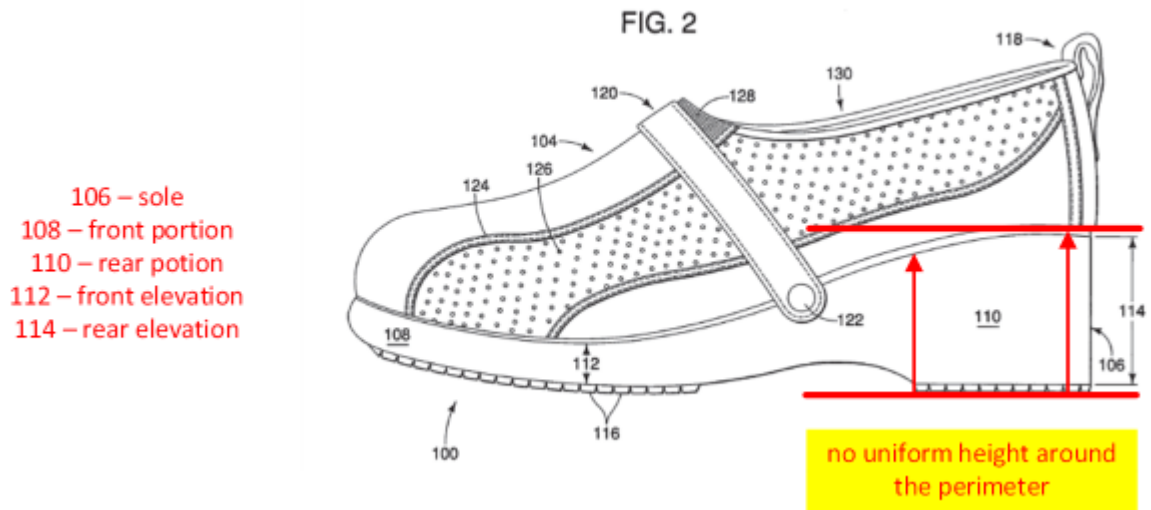


196. The above section of Mr. Delgatty’s declaration is misleading for two reasons: (1) With respect to Figure 1, to show the side view of a heel platform, he used the combination of the insole, midsole, and outsole, yet above he is only using the midsole; (2) the cross section of the midsole he is references is in the forefoot, not in the heel.

197. Mr. Delgatty claims that generic references to “known” outsoles in Umezawa would teach a POSITA that heel platform with a substantially uniform heigh around the perimeter was included. EX1002, ¶72. But paragraph 32 of Umezawa says nothing about the height and dimensions of the heel platform—it simply states that the “material and structure” of the “upper,” “insole,” and “outsole” are “equal to known” ones. EX1006, ¶ 32. As I explain above, Mr. Delgatty’s opinions about “known” shoes soles are deeply flawed. Nothing in this general language would teach anything about the dimensions of the heel platform, particularly in view of the wide variety of heel design choices available to a POSITA.

198. Based on the foregoing, Mr. Delgatty clearly fails to show that Umezawa has a heel platform of a first height that is substantially uniform around its perimeter as is required by claim 1.

199. His use of Gallas does not help. Just looking at Figure 2 of Gallas, it does not includes a uniform height around its perimeter.



EX1020, Fig. 2 (annotated).

200. If the visual was not enough, Gallas also expressly teaches that the “the rear portion 110 may be elevated and may taper toward the front portion” (EX1020, ¶ 21) and that “the angle of the shoe[] slant[s] down from the back to the front” to “facilitate weight transfer from the heels to the toes at impact.” *Id.*, ¶17. Gallas thus teaches a heel that is slanted from back to front—that is not a substantially uniform-height heel platform, and is the opposite of the type of heel platform that a POSITA would want if they wished to make a flat heel platform. The above clearly demonstrates that “a heel platform having a first height that is substantially uniform around its perimeter” is not a conventional feature of athletic shoes as Mr. Delgatty alleges. If it were, both Umezawa and Gallas would show it.

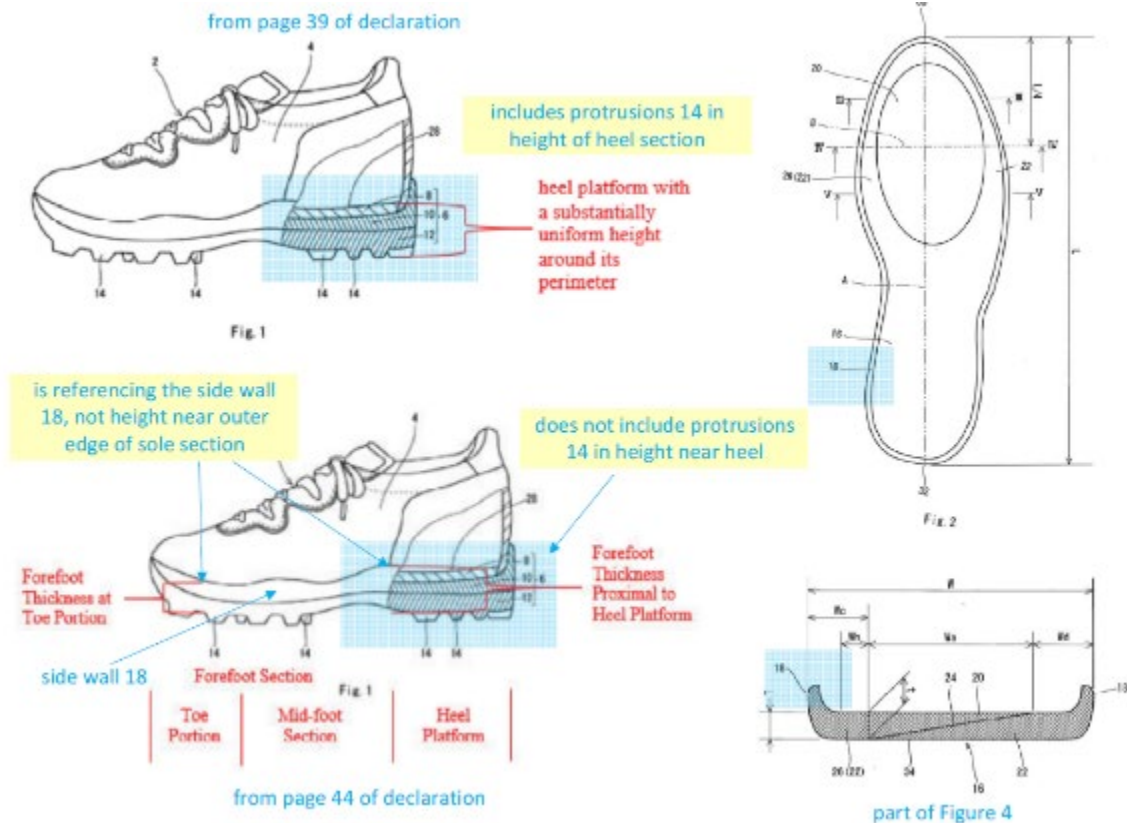
201. Further, 37 CFR § 1.83, states in part, that conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled representation (e.g., a labeled rectangular box). If a heel platform as per claim 1 was conventional, Umezawa and Gallas could have just shown a box with a label, but they did not; they added detail because a heel platform per claim 1 is not a conventional shoe feature.

3. Umezawa does not disclose a “forefoot platform [that], at the outer edge” has a greater “thickness at a position proximal to the heel platform” than at a “toe portion” and the proposed combination with Gallas does not resolve the issue (limitation [1.5])

202. As noted above, Petitioner and Mr. Delgatty’s contentions with respect to this limitation are completely contradictory. Mr. Delgatty asserted that Umezawa’s sole has a “consistent thickness throughout” (EX1002, ¶43) and thus cannot credibly argue that the same sole is thicker, in the forefoot section, proximal to the heel than at the toe.

203. Umezawa has no disclosure of this claimed feature and instead discloses a consistently thick forefoot section. EX1006, Figs. 2-4, ¶¶ 17-19. Mr. Delgatty’s annotations of Figure 1, in which he attempts to find this missing

limitation, are deeply misleading. Below is a juxtaposition of this annotation of Figure 1 with his annotation for his heel platform analysis.



204. Notably, Mr. Delgatty includes the protrusions 14 in the height of the heel section in the annotated version on page 39 (for the heel platform), but does not on the annotated version of page 44 (for the forefront platform) and is pointing to the side wall, not the internal structure of the sole. He also references the side wall in the forefoot. It is also unclear whether what Mr. Delgatty points to for the forefoot

section is even part of it (as opposed to the heel). And Mr. Delgatty makes no attempt to explain how the forefoot platform could be thicker toward the heel than elsewhere when Figs. 2-4 show it having a consistent thickness.

205. Mr. Delgatty also asserts that the claimed feature “is common in almost all shoes, and has [long] been a conventional design feature in athletic shoes” (EX1002, ¶75) but as I have explained above his opinions in this regard are not credible.

206. Similarly not credible is his assertion that the claimed feature is part of “Applicant admitted prior art” simply because the background portion of the ’768 Patent notes that in some existing “baseball spikes, the heel portion of the shoe may be higher than the toe portion.” EX1002, ¶76 (citing EX1001, 1;63-2;6). In reality, that the heel may be higher than the toe says nothing about the relative thickness of the forefoot platform—the heel might taper down to a uniformly thick forefoot section, with all of the tapering occurring in the heel.

207. Mr. Delgatty also again relies on Gallas for this limitation but, as discussed above, his proposed motivation to combine is directly contrary to Gallas’ disclosure of an angled heel platform.

D. Mr. Delgatty and the Petition Do Not Demonstrate That Claims 1-5, 8 Are Obvious Based on Norton (Ground 3).

1. As With Other Grounds, Petitioner and Mr. Delgatty Make No Arguments Under the Correct Construction of “Second Material,” and Norton Teaches Away From Any Such Theory (limitation [1.4])

208. As I noted above, I saw no contentions in any ground under the correct construction of “first material” and “second material.” I understand that the Board nonetheless credited an argument, unstated in the Petition or Mr. Delgatty’s declaration, that Norton’s teaching that its “sole element” could only be a “part of a sole” was sufficient to establish the “second material” limitation, and that Norton did not teach away from such a configuration. Institution Decision, 31. I disagree with both aspects of this argument.

209. The following is a quote from the institution decision on page 31:

Because Norton describes using its sole element as part of a sole, and not as the entire sole, Petitioner sufficiently shows at this preliminary stage that Norton discloses the recited forefoot platform made of a second material with a gradient compression factor.” *See* Pet. 38. Also, on the preliminary record, using Norton’s sole element in a shoe sole does not appear to be a teaching away, because Norton describes using a single material for the sole element, not an entire sole. Ex. 1006, 3:9–15, 4:59–62

210. Colum 3, lines 9-15 of Norton discloses:

One aspect of one embodiment of the present invention is to not use two different materials with different densities to create the density variation over the sole element and to connect these materials

subsequently, but to use a single material being supplied as a preform and having a thickness distribution that is transformed by pressure forming into the desired density distribution.

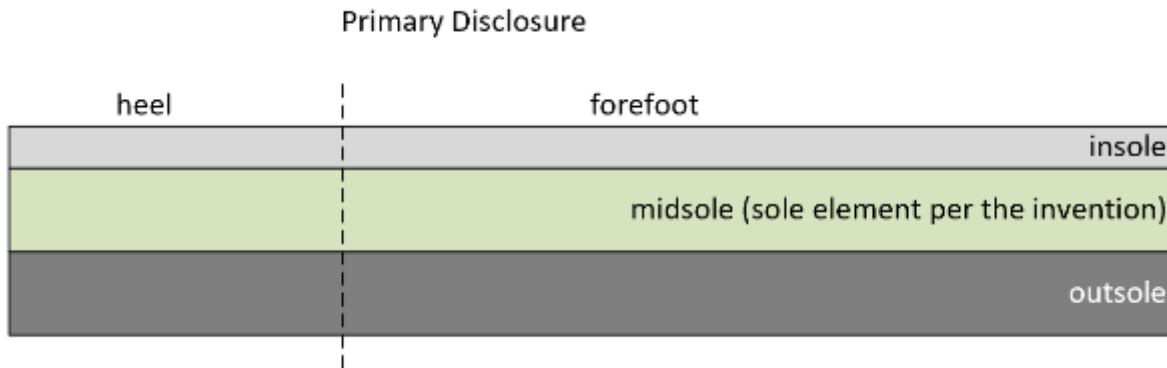
211. Column 4, lines 59-62 of Norton discloses:

In one embodiment, the invention relates to an article of footwear including an upper and a sole including a sole element manufactured in accordance with the preceding methods.

212. Column 5: lines 60-68 of Norton discloses:

That is, the sole element in accordance with the invention is typically formed as a midsole, where an outsole and an insole for improving comfort are additionally provided. Furthermore, it is not necessary that the sole element extends in a longitudinal direction (i.e. from the heel to the forefoot part) over the complete sole. It is also possible that a sole element in accordance with the invention is only used in the heel and/or in parts of the forefoot.

213. From these three sections, Norton discloses that an article of footwear includes an upper and a sole. The sole includes a sole element manufactured in accordance with the preceding methods. The sole element is a midsole, where an outsole and an insole are additionally provided. As such, the sole of an article of footwear includes an outsole, an insole, and a midsole made from the sole element per the invention. A drawing of this sole is shown below.



214. As the cross section of the heel above in accordance with Norton demonstrates, Norton's heel includes the same materials as the forefoot.

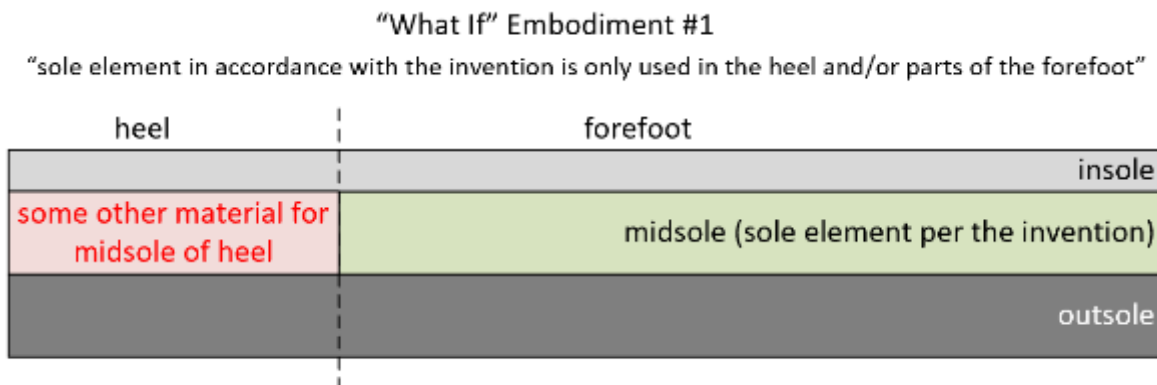
215. As such, the materials in the forefoot section of Norton are the same materials as in the heel section; the outsole, the insole, and the midsole made of the sole element per the invention. They are not first and second materials with different compression factors as required by the claims.

216. Norton does disclose, as quoted above:

Furthermore, it is not necessary that the sole element extends in a longitudinal direction (i.e. from the heel to the forefoot part) over the complete sole. It is also possible that a sole element in accordance with the invention is only used in the heel and/or in parts of the forefoot.

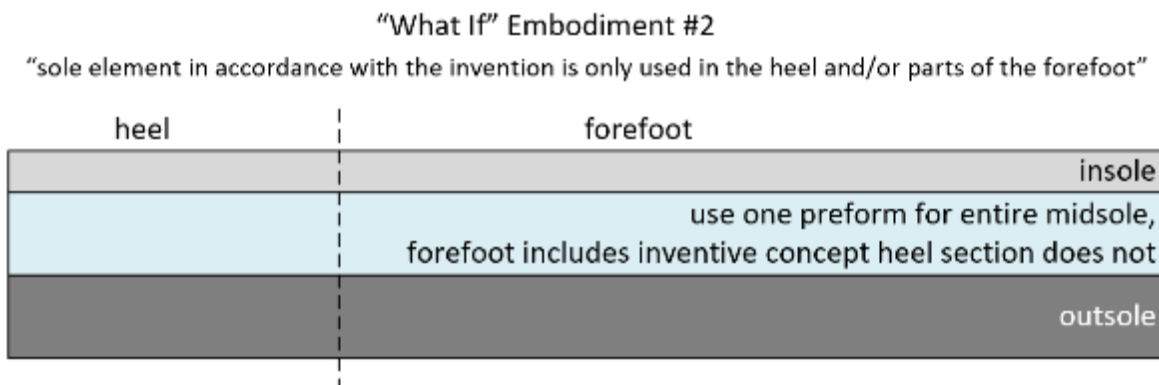
217. There are two possible ways to interpret this and only include the sole element in accordance with the invention being used in the forefoot. Since Norton did not provide any technical discussion on what these embodiments would look

like, I call them “What if” embodiments. The first “What if” embodiment, which is advocated by the Petitioner and Mr. Delgatty, is shown below.



218. In this embodiment, the midsole portion of the heel can be replaced with some other material. In particular, Mr. Delgatty states the midsole section can be replaced with the two-material heel section of Giese. However, using a different material in the midfoot heel section defeats the primary objective to use a single material for the sole element.

219. A far more likely “What if” embodiment is shown below.



220. In this embodiment, the midsole is of one material in the heel and in the forefoot. In this embodiment, the forefoot includes the inventive concept of a using a preform that has different thicknesses to produce a sole element that has different densities. This inventive concept is not used in the heel. As such, the cross section of the heel and the forefoot still include the same materials, not different materials as required by the claim. This embodiment, however, is in keeping with the primary design objective to use a single material for the sole element.

221. There is nothing in Norton to support the argument that the fact the sole element could only be a part of a sole is sufficient to establish the second material limitation. What Norton specifically disclosed was, “it is also possible that the sole element in accordance with the invention is only used in the heel and/or other parts of the forefoot.” EX1007, 5:65-67. Nothing more.

222. Norton, however, is very clear that one of its main design objectives was to NOT use multiple materials. Even though Norton incorporated Giese (U.S. Patent 5,025,573) by reference, Norton disclosed that Giese represented one of the problems Norton was addressing; that being the use of multiple materials in a sole element. EX1007, 1:63 – 2:7 and 2:54-58.

223. Regarding the statement, “it is also possible that the sole element in accordance with the invention is only used in the heel and/or other parts of the

forefoot”, the invention is referring to the use of a single material having different thicknesses in a preform to produce a uniform height sole element with different densities. Thus, if some parts of a sole element included the inventive concept, then other parts of the sole element would not have different densities from a preform having different thicknesses.

224. As Norton discloses with respect to Figure 7 and as would be apparent to a POSITA, the other sections of the sole that do not include the inventive concept of different thickness of the preform would simply have the preform be of a constant thickness. This would result in sole element sections with the same thickness as the sections with the inventive concept but these sections would have a constant density. This would satisfy the statement that only a portion of the sole element includes the inventive concept and keeps in line with the design objective of using a single material.

225. If the non-inventive concept sections of the sole element were a second material, it would defeat the purpose of Norton and reintroduce the problem Norton is trying to overcome. As such, Norton clearly does not support the statement that “sole element” could only be a “part of a sole” was sufficient to establish the “second material” limitation. Such a statement defeats the purpose of Norton. Based on the foregoing, it is also clear that Norton was teaching away from using multiple

materials. Instead, Norton teaches that the material of the heel would be the same material as used in the forefoot, even if some of the sole element did not include the inventive concept.

226. Consistent with the above, Mr. Delgatty and Petitioner repeatedly argued that Norton’s sole element encompassed the entire sole, including the heel. See, e.g., Pet., 9 (“Norton invented a method of providing a variably density sole using only a single material”); 10 (“The sole element has a consistent thickness throughout, including the heel section.”); 49 (“Norton teaches a single-material sole to overcome these problems [with multi-material soles]”); EX1002, ¶111 (“Norton teaches a single-material sole to overcome these problems [with multi-material soles]”). Thus, I understand Petitioner and Mr. Delgatty’s Norton contentions to be based on a theory that Norton’s single-material sole element encompass the entire sole, including the heel.

227. Still further, the great weight of Norton’s teaching is that it is advantageous to construct the entire sole of a single material to “overcome” the “severe disadvantage” associated with joining multiple materials. See EX1007, 2:54-67, 3:9-24. Petitioner and Mr. Delgatty specifically rely on this teaching regarding Norton’s “single-material sole.” Pet., 48-49; EX1002, ¶111.

228. A POSITA would understand Norton's explanation of the disadvantages of a multi-material design and the advantages of a single material design to be a clear teaching away from a configuration in which the heel and forefoot platforms are constructed of different materials. Such a configuration would reintroduce the very problems with integrating multiple materials that Norton is focused on avoiding.

2. Petitioner and Mr. Delgatty do not show that Norton discloses “a heel platform having a first height that is substantially uniform around a perimeter of the heel platform” and is constructed of a first material having a first compression factor (limitation [1.3])

229. In Mr. Delgatty's argument regarding a heel platform, he makes four inconsistent points without any explanation to show that Norton teaches a heel platform as claimed.

230. Delgatty Point (1): he states that Norton teaches and/or suggests a sole element, which is a midsole, with a constant thickness throughout, including the heel section, as shown in Figures 4A and 4B on page 56 of his declaration. This argument relies on Norton describing a full sole element, which is preferably a midsole, that includes a forefoot section and a heel section.

231. Delgatty Point (2):

Norton also teaches that the inventive sole element may only be used

in parts of the forefoot (id., 5:65-67), and a POSITA would understand that a typical athletic shoe has a heel platform that is consistent in height throughout, as described above. This, in combination with Norton's disclosure of an insole having a consistent-thickness heel section would lead a POSITA to conclude that Norton's heel platform has a substantially uniform height from the inner edge to the outer edge.

EX1002, ¶92.

232. This argument is based on arbitrarily adding a conventional heel to the forefoot of Norton. Further to point (2): "[i]n addition, Giese (incorporated by reference into Norton) discloses several shoe embodiments wherein the heel platform is substantially uniform in height around its perimeter." EX1002, ¶93. This argument pertains to a two-material midsole and outsole heel arbitrarily added to the forefoot of Norton.

233. Delgatty Point (3): Giese also acknowledges that, "historically, shoe bottoms [] consisted primarily of flat surfaces on both their top and bottom." EX1002, ¶94. This argument pertains to an outsole only.

234. Point (4): A POSITA would further understand that the heel disclosed in Norton would be made of a material inherently having some compression factor. EX. 1002, ¶95.

235. As such, Mr. Delgatty's argument boils down to: (1) Norton's entire single material midsole shows uniform heel height; (2) a conventional heel and/or the two material midsole and outsole heel of Giese show a uniform heel height; and

(3) the outsole is Giese is flat. He provides no explanation or justification as how a POSITA would look at these contrastingly different statement and conclude that they render the heel platform of claim 1 obvious.

236. Still further, Mr. Delgatty’s opinions about “typical” athletic shoes are flawed and unreliable for the reasons I’ve explained above. Figs. 4A and 4B, moreover, only show the thickness of the sole element—they do not address the thickness of other elements of a heel platform such as the outsole. A POSITA could not draw conclusions about the entire platform based on those figures. Of note, Mr. Delgatty’s reliance on those figures for the heel platform shows that he understands Norton’s sole element to include the heel section.

237. Still further, Mr. Delgatty also proposes, almost in passing, that heel platforms from Giese could be incorporated into Norton’s design. But he provides no motivation to combine or analysis of reasonable expectation of success. EX1002, ¶¶93-94.

238. Nor does he provide any discussion regarding motivation or reasonable expectation of success present. Mr. Delgatty assumes that heel platforms and a forefoot platforms from disparate shoes are wholly interchangeable components of a shoe, but a POSITA knows this is not true. A POSITA knows, for example, that the heel and forefoot of a golf shoe cannot be interchanged with the heel and forefoot

of an athletic shoe as shown below (with reference to some of the allegedly “conventional” shoes Mr. Delgatty relies upon):

239. The following pictures are from Mr. Delgatty’s declaration at pages 25, 27, 29, and 32. The upper left photo of a golf shoe is separated into a heel portion and a forefoot portion. The upper right photo is a Van’s shoe separated into a heel portion and a forefoot portion. In his arguments, Mr. Delgatty is effectively saying that any heel can be obviously combined with any forefoot. The combined photos on the bottom left and right show that it would not be obvious to combine any heel with any forefoot portion.



240. As another example, a POSITA knows that the heel and forefoot of a running shoe are not interchangeable with the heel and forefoot of a general athletic shoe:



241. Instead, taking the features of the heel of one shoe and combining it with the forefoot of another shoe, requires significant redesign of the shoe. This is not a simple substitution with predictable results, and Mr. Delgatty does not even attempt to argue otherwise.

242. Further, Norton cites Giese as an example of a “sole unit with different parts made out of substances with different elastic properties.” EX1007, 1:63-2:7. This is the type of multi-material sole that Norton teaches away from—there is no suggestion in Norton of any benefit to using Giese’s heel or any other aspect of its disclosure with Norton’s sole element.

243. The figures in Giese that Mr. Delgatty relies upon are also insufficient to show that the heels are substantially uniform around their perimeter. EX1002, ¶48

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(citing EX1010, Figs. 1-5, 36-39, 48-51). Mr. Delgatty also points to Giese's statement that "historically, shoe bottoms [] consisted primarily of flat surfaces on both their top and bottom." EX1002, ¶94. But this statement is not probative of heel platform height because it concerns only "shoe bottoms." Further, Mr. Delgatty omits the language that immediately follows stating that "[e]ventually, it became known to contour the top surface of the unit bottom to provide a heel cup and slight arch" which the made "the shoe more comfortable" in comparison to "a flat surface." EX1010, 1:22-27. Thus, Giese teaches that conventional shoe design taught away from a "flat surface."

3. Petitioner and Mr. Delgatty have not shown that Norton discloses a "forefoot platform [that], at the outer edge" has a greater "thickness at a position proximal to the heel platform" than at a "toe portion"

244. Mr. Delgatty's opinions as to this limitation are once again wholly contradictory. He states that "[Norton's] sole element has a consistent thickness throughout, including in the heel section." EX1002 ¶46; *see also id.* p. 56 ("Norton teaches and/or suggests a sole element with a consistent thickness throughout, including in the heel section, as shown in Figs. 4A, 4B."). Yet for this limitation he states that a POSITA would understand Norton to teach the opposite—that Norton "teaches and/or suggests a forefoot platform wherein, at the outer edge, the thickness

at a position proximal to the heel platform is greater than the thickness at the toe portion.” EX1002, ¶98. This is not credible.

245. Mr. Delgatty’s only support for this statement relies on further internal contradictions and improper assumptions. He relies on Norton’s suggestion that the disclosed sole element need not be used throughout the sole. EX1002, ¶98. But as discussed above, elsewhere Mr. Delgatty and Petitioner argue that Norton teaches a single material sole and rely on the sole element including the heel platform. Further, the sole element of Figures 4A and 4B is of equal thickness throughout. So, if only a portion of it were used, say in the forefoot, it would still of an equal thickness.

246. Next, he assumes that a POSITA would convert a statement that the sole element need not cover the entire sole into an implicit disclosure that the remainder of the sole includes all allegedly conventional shoe elements, including the allegedly conventional thicker forefoot platform near the heel. There is no basis for this leap in logic and in any event as discussed above Mr. Delgatty’s opinions that this limitation was conventional are unsound.

247. Mr. Delgatty also says that the claimed limitation is present in admitted prior art, Giese, and/or Matthews and that a POSITA would combine those disclosures with Norton. EX1002, ¶¶99-103. His admitted prior art theory fails for the reasons noted above with respect to Umezawa.

248. And his Giese and Matthews theory lacks any credible motivation to combine or a reasonable expectation of success for the reasons discussed in the immediately preceding section. In particular, Norton teaches away from combining its disclosure with multi-material soles like Giese and Matthews, and a POSITA would not understand heel and forefoot sections to be easily interchangeable as Mr. Delgatty blithely assumes. It is only hindsight that drives Mr. Delgatty's stitching together of disparate elements.

E. Petitioner and Mr. Delgatty Do Not Demonstrate That Claims 1-5, 8 Are Obvious Over Won in View of Norton (Ground 4).

- 1. Won does not disclose “the forefoot platform is constructed of a second material having a gradient compression factor” and Petitioner’s proposed combination with Norton is not plausible (limitation [1.4])**

249. As I explain above in my summary of Won, the portion of Won that Petitioner and Mr. Delgatty rely upon for this limitation is not directed to a “forefoot platform” at all. Instead, Figure 5 depicts an exterior “surface” of the golf shoe, to which the spikes are affixed, viewed from the perspective of someone looking up at the bottom of the shoe. *See* EX1005 at 4:45-49 (In yet another embodiment of the present invention as shown in FIG. 5, the golf shoes can be formed such that the inside *surface* and outside *surface* separated by a central longitudinal axis of the sole (or mid sole) are different from each other. The inside *surface* is soft surface

and outside *surface* hard surface, both of which are made from elastic materials.”);

Fig. 5 (below).

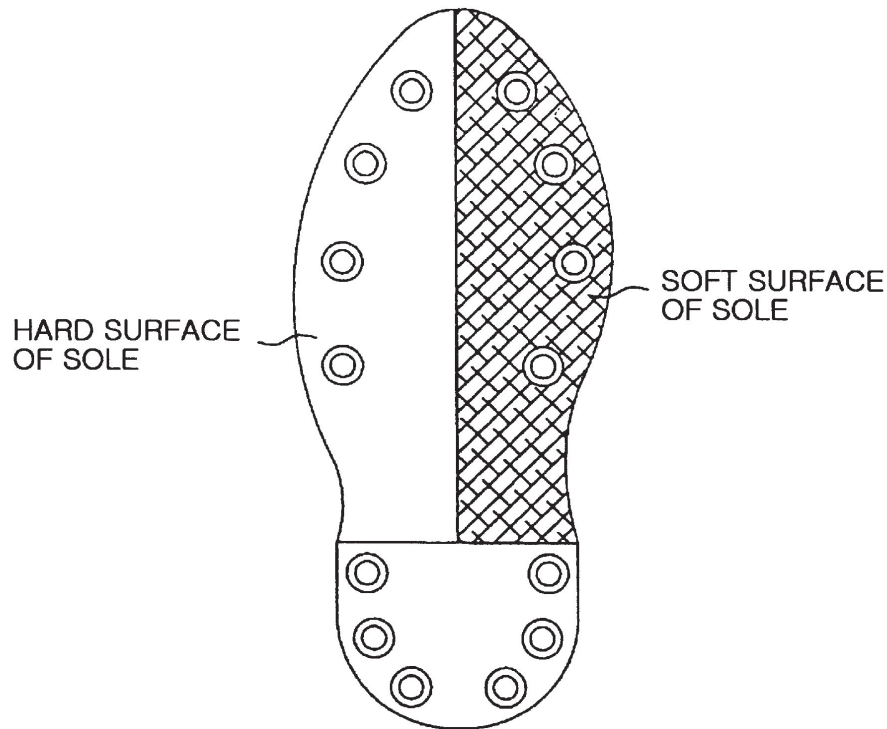


FIG. 5

250. A POSITA would understand this surface to have negligible thickness since a “surface” is the effectively two-dimensional “exterior or upper boundary of an object.” EX2014 Plainly, Won’s forefoot section cannot be said to be “constructed of” this surface material. Thus, whether or not it is compressible is not relevant to the claim limitation in question, since the claim limitation is directed to a “forefoot platform” that is “constructed of a first material that has a gradient compression factor.”

251. When Mr. Delgatty discusses Figure 5 of Won on page 77 of his declaration, he states that Won teaches and/or suggests a golf shoe having a forefoot platform that is constructed of two materials, the material on the inside of the forefoot platform being softer and more compressible than the outside of the forefoot. From this statement, Mr. Delgatty equates the surface of Won to mean the entire thickness of the forefoot section without any justification or explanation. Won itself does not provide a definition of surface that would change its ordinary meaning. As such, Mr. Delgatty's obviousness arguments fail on this point alone.

252. As discussed above, moreover, Won never mentions compression or the compressibility of the forefoot section, and compression has nothing to do with its principle of operation. Instead, as I explain above in my summary of Won, Won states that the "soft" and hard" surface somehow dictate whether the spikes will penetrate the ground or not. Won does not disclose a forefoot platform "constructed of a second material having a gradient compression factor".

253. Mr. Delgatty recognizes that Won does not disclose the "gradient compression factor" under Petitioner's proposed construction and proposes a combination with Norton EX1002, ¶¶ 108-115. This proposed combination does not render the claims obvious and is not plausible for a number of reasons.

254. As an initial matter, Mr. Delgatty and Petitioner do not argue that the proposed combination results in different first and second materials. Instead, Mr. Delgatty expressly proposes replacing Won’s entire “sole or mid-sole” with Norton’s single material sole element. EX1002, ¶114 (“Won’s multi-material sole or midsole could easily be replaced with a single material sole element as disclosed in Norton...Norton identified similar dual-material soles like that disclosed in Won, and suggested its manufacturing technique would be suitable to replace such a sole with one made from a single material.”).

255. This makes no sense because Mr. Delgatty and Petitioner’s motivation for the proposed combination is premised on a POSITA’s desire to follow the teachings of Norton and avoid the problems associated with multi-material designs. EX1002, ¶111. It self-evidently would make no sense for a POSITA to combine Norton and Won to avoid these problems with multi-material designs, only to reintroduce them by using different materials in the forefoot and heel sections.

256. Next, Mr. Delgatty and Petitioner’s obviousness theory lacks any reasonable expectation of success because it is unmoored from the facts of Won’s disclosure—and in particular the fact that the disclosure in Won being relied upon is the outer surface of the bottom the shoe.

257. Mr. Delgatty asserts that “Won’s multi-material sole or midsole could easily be replaced with a single material sole element as disclosed in Norton” (EX1002, ¶114) but he never actually engages with core questions about how this combination would work.

258. Plainly, the “sole element” in Norton cannot be used to replace an exterior surface or, as Mr. Delgatty referred to it in deposition, an “outsole.” EX2010, 117:7-10. Norton’s “sole element” is an interior component, not intended for contact with the ground. Notably, Norton distinguishes the “sole element” from an “outsole.” EX1007, 5:60-63.

259. But if Norton’s sole element is not replacing Won’s exterior surface, how would the combination work? What would happen to Won’s spikes—would they be attached to Norton’s “sole element”? How would use of Norton’s compressive sole element affect the distribution of downward pressure on the spikes, and thus the extent to which spikes are driven to the ground? No POSITA could reasonably expect success without answers to these questions, and Mr. Delgatty provides none of them.

2. Mr. Delgatty and Petitioner have not shown that Won discloses “a heel platform having a first height that is substantially uniform around a perimeter of the heel platform” (limitation [1.3])

260. Mr. Delgatty asserts that “Figures 2, 6, and 7 all show a uniform height heel section,” (EX1002, ¶ 118) but this is inaccurate. The minimalist, schematic diagrams—which are focused on depicting angles between heel and toe—show only the side view, not a rear view, and thus do not disclose anything meaningful about the height of the heel around the perimeter.

261. Mr. Delgatty also relies on the statement in Won that “it is preferred that said heel portion is ... substantially 0 degrees” from rear to front. EX1002, ¶118. But that statement says nothing about whether the heel platform is level from the inner edge to the outer edge, and Mr. Delgatty is wrong that a POSITA would interpret it to mean that the heel is flat on that axis. References like Norton teach that a slope from the inner to outer edge may be beneficial to counter act pronation or supination, and a POSITA would not understand Won’s reference to 0 degree longitudinal tilt as excluding such configurations.

262. Further, even if Won did disclose a flat heel platform in all directions, the inference underlying Mr. Delgatty’s analysis—that flat heel platform necessarily has a uniform height perimeter—is unsupported. The perimeter of the heel platform

could have a number of non-uniform designs for the heel platform wall that are used in conjunction with a flat base.

263. In this section Mr. Delgatty also reprises his arguments about a “typical” shoe—they are unreliable for all of the reasons I have discussed above. Mr. Delgatty also says that “Norton and Giese (incorporated by reference into Norton) disclose several shoe embodiments wherein the heel platform is substantially uniform in height around its perimeter” and references his Ground 3 arguments. These arguments are unpersuasive for the reasons I set forth in Ground 3.

264. I also note that Mr. Delgatty never provides a motivation to combine the heel-related disclosures of either Norton or Giese with Won (his Ground 3 motivation to combine section pertains to the “forefoot platform [] constructed of a second material having a gradient compression factor” limitation only). Accordingly, Mr. Delgatty has presented no reason that a POSITA would make the combination.

3. Won does not disclose a forefoot platform that is thicker at the outer edge at a position proximal to the front edge of the heel platform than at the toe portion (limitation [1.5])

265. Petitioner’s and Mr. Delgatty’s arguments that Won discloses this limitation do not withstand scrutiny. Mr. Delgatty uses the annotated version of Fig. 6 below in support of an argument that Figs. 6 and 7 of Won disclose this limitation:

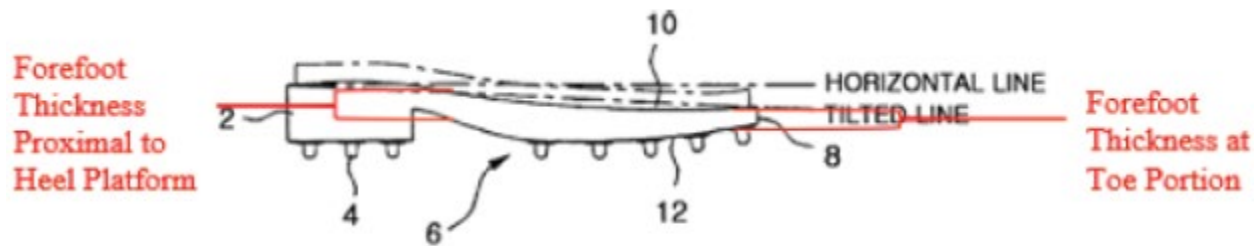
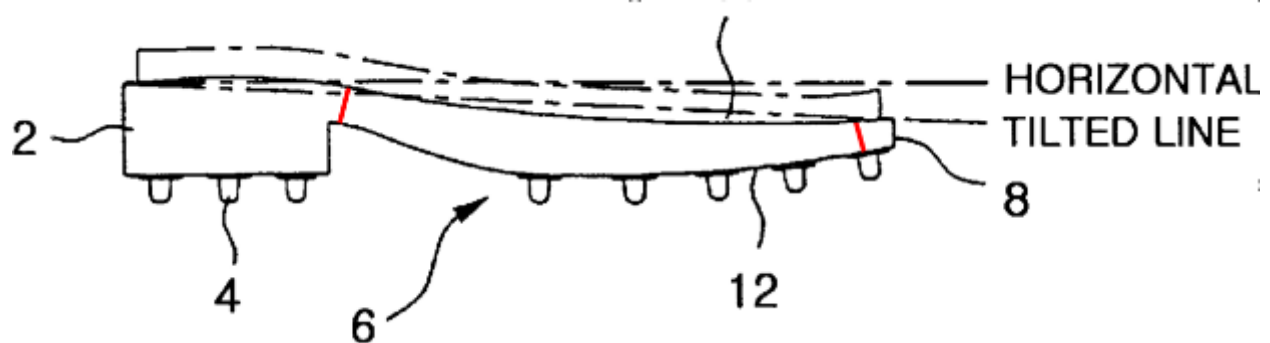


FIG. 6

266. As an initial matter, relying on rough “eyeballing” of a minimalist schematic diagram—which is what Mr. Delgatty does—is not a technically sound way of demonstrating that a reference discloses that a particular measurement is greater than another. Beyond that, Mr. Delgatty’s annotations are misleading. Specifically, he ignores the curvature of the sole and draws a line straight down to “measure” thickness, rather than drawing a line that reflects the curvature of the sole. A more accurate representation of the depicted thickness of the forefoot section would look like the below (which shows no appreciable difference in thickness):



EX1005, Fig. 6 (annotated).

267. Further, Won states that Figure 6 depicts a “conventional golf shoe.” EX1005, 3:16-17. Mr. Delgatty’s own cited evidence of an allegedly “conventional” golf shoe however—just the in Won’s Figs. 6 and 7—appears to be completely uniform in thickness throughout its forefoot platform.



EX1002 ¶67 (annotated image).

268. There is simply nothing in Won that a POSITA would interpret as a forefoot section thicker proximal to the heel than at the toe, much less one that is thicker “at the outer edge” as the claims require (and Mr. Delgatty does not address).

F. The Petition and Mr. Delgatty Fail to Demonstrate That Claims 1-5, 8 Are Obvious Over Won in View of Talarico '911 (Ground 5).

1. Petitioner and Mr. Delgatty fail to show that Won in view of Talarico '911 render obvious a forefoot platform “constructed of a second material having a gradient compression factor” (limitation [1.4]).

269. Mr. Delgatty states “Ground 5 is similar to Ground 4, but relies on Talarico ‘911 rather than Norton as the secondary reference to disclose a forefoot platform that is ‘increasingly less compressible’ from its inner edge to its outer edge.” EX 1002, ¶130.

270. Consistent with this admitted similarity, Ground 5 in my opinion fails for many of the same reasons as Ground 4’s Won-Norton combination. In particular, Petitioner and Mr. Delgatty never engage with the mechanics of how replacing Won’s surface with Talarico’s sole element would actually work and thus fails to establish a reasonable expectation of success. Mr. Delgatty leaves the same essential questions unanswered with the Won-Talarico combination as he does with Won-Norton.

2. Petitioner and Mr. Delgatty fail to show that Won in view of Talarico '911 render obvious “a heel platform having a first height that is substantially uniform around a perimeter of the heel platform, wherein the heel platform is constructed of a first material having a first compression factor” (limitation [1.3])

271. Mr. Delgatty acknowledges that Talarico '911 is “directed only to the forefoot portions of the footwear.” EX1002, ¶138. As with other references, Mr. Delgatty claims that a POSITA would interpret Talarico '911 as disclosing a heel platform with a substantially uniform height around the perimeter, but cites no disclosure of such a heel platform. EX1002, ¶ 137. In fact, there is no disclosure in Talarico '911 of a substantially uniform height (around the perimeter) heel platform.

272. Mr. Delgatty next relies on his “typical athletic shoe” opinions as a reason a POSITA would find the limitation in Talarico '911, opinions which are unreliable as discussed above.

273. Mr. Delgatty neglects to provide any motivation for combining Talarico '911's minimal disclosures regarding the heel platform with Won—the motivation to combine proffered applies only to limitation [1.4]. Instead, Mr. Delgatty repeats his open-ended “to the extent needed” justification for the combination, which begs the question of “to the extent needed” to do what? Mr. Delgatty does not provide an answer.

G. The Petition and Mr. Delgatty Fail to Demonstrate That Claims 1-5, 8 Are Obvious Over Won in View of Talarico '911 and in Further View of Gallas (Ground 6).

274. Ground 6 differs from ground 5 only in that it relies on Gallas for the limitation for the substantially uniform height (around the perimeter) heel platform. Gallas does not disclose, teach, or suggest this limitation—and in fact teaches away from it—for all the reasons discussed in the relevant section above.

XII. SECONDARY CONSIDERATIONS OF NONOBVIOUSNESS

275. The above arguments clearly show that the '768 Patent is not obvious in view of the art cited by the Petitioner. In addition, there are secondary considerations that further show that the '768 Patent is not obvious.

276. 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.

A. Long-Felt but Unmet Need

277. As noted in the background section of this declaration, co-inventor and I identified a long-felt but unmet need for athletic shoes that place the athlete's foot in an optimal athletic position. The prior art references that Petitioner and Mr. Delgatty rely upon illustrate this long-felt need. Talarico '911 was filed almost 40

years ago, but later references like Norton and Umezawa show that the need for proper athletic foot positioning was not met.

278. References like Norton, Umezawa, and Won, moreover, did not meet this need. Athletic shoes that incorporate the concepts of references like Won, Umezawa, Talarico '911, and Norton are not represented in the market, to the extent they even exist at all. As of March 2011, no shoe on the market that I am aware of met the long-felt need that existed for athletic positioning footwear.

B. Copying

279. I understand that copying is one consideration of non-obviousness. I have personal knowledge of evidence that Under Armour copied Athalonz's shoes and patents.

280. 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 '768 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 '768 patent. At the time, Athalonz was known as AdMark Athletic Ventures (which later changed its name to Athalonz).

281. 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;**

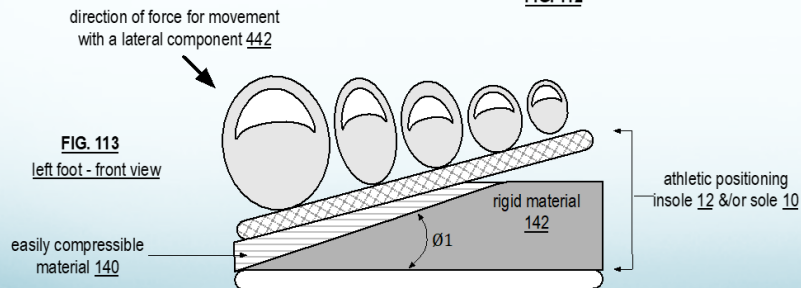
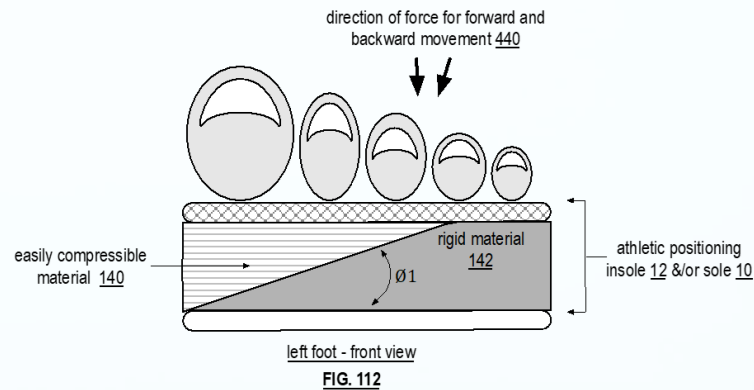
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EX2012, 13.

282. 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 '768 patent:

Normal to athletic positioning



AdMark Athletic Ventures Confidential Information

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EX2012, 68.

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

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

285. 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 '768 patent. These shoes were all released after I presented the slides above to Under Armour in 2013.

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

XIII. 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