

Petitioner's Demonstratives

UNDER ARMOUR, INC., *Petitioner*, v. ATHALONZ, LLC, *Patent Owner*

IPR2024-00639, 640

U.S. Patent Nos. 11,375,768 and 11,510,456

June 17, 2025 Oral Hearing

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE



UNDER ARMOUR

Petitioner Exhibit 1038

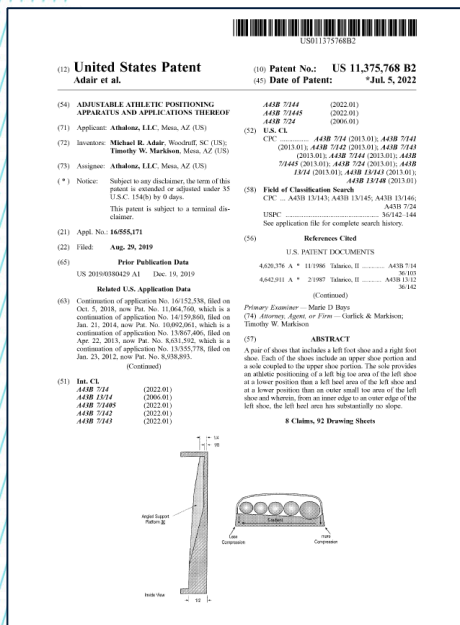
**IPR2024-00639, 640 – U.S. Patent
Nos. 11,375,768 (“the ’768 Patent”) and
11,510,456 (“the ’456 Patent”) - The
“Compression” Patents**

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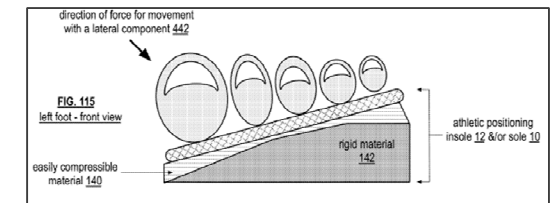
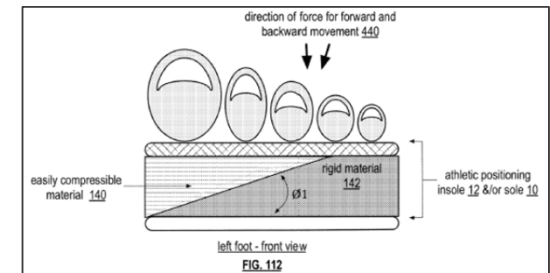
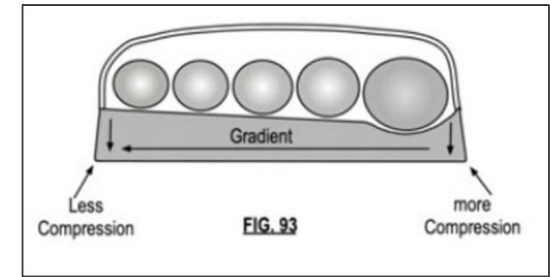
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'768 Patent – Forefoot Compression



- Claim 1: An athletic shoe comprising an upper section and a sole section, wherein the sole section includes:
- A heel platform
 - constructed of a first material
 - having a substantially uniform height around a perimeter
- A forefoot platform
 - constructed of a second material having a gradient compression factor
 - that compresses more near an outer edge than near an inner edge
 - is thicker at a position proximal to the heel platform than at a toe portion

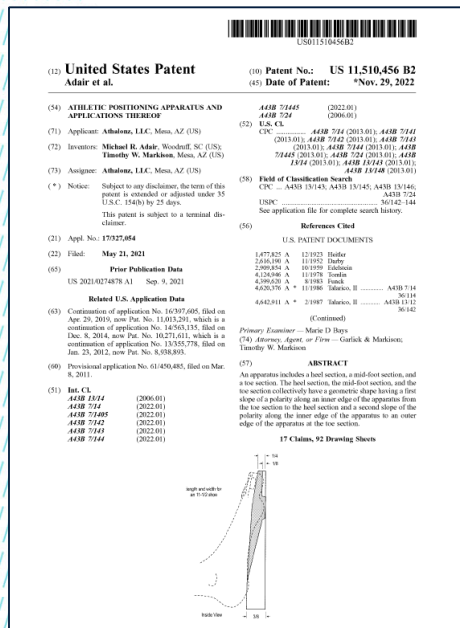


EX1001, Figs. 93, 112, 113

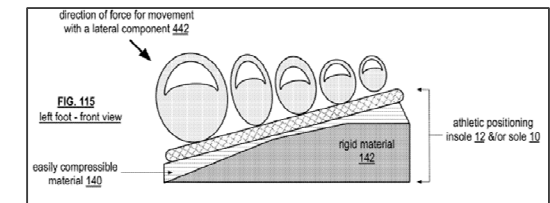
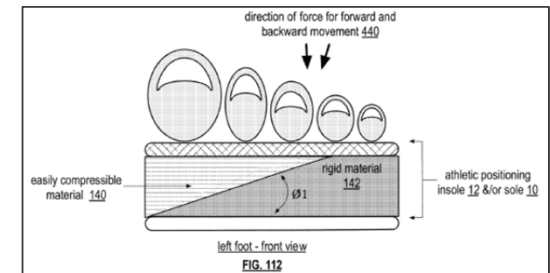
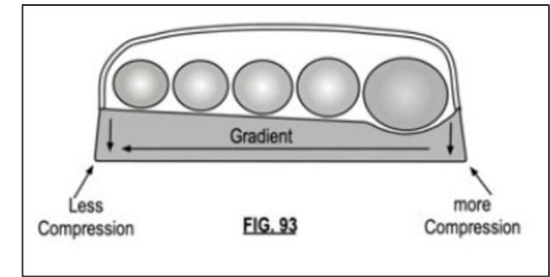
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'456 Patent – Forefoot Compression



- Claim 1: An athletic shoe comprising an upper section and a sole section, wherein the sole section includes:
 - A heel platform
 - constructed of a first material
 - having a substantially uniform height from an inner edge to an outer edge
 - A forefoot platform
 - constructed of a second material
 - having a gradient compression factor
 - that compresses more near an outer edge than near an inner edge
- Claim 10: similar, but does not include “gradient compression factor,” instead only requiring the forefoot platform to be more compressible proximal to its inner edge than its outer edge.



EX1001, Figs. 93, 112, 113

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‘768 Patent: Instituted Grounds of Unpatentability

Ground	Claim(s)	Basis for Unpatentability
1	1-5, 8	Obvious Over Umezawa
2	1-5, 8	Obvious Over Umezawa in View of Gallas
3	1-5, 8	Obvious Over Norton
4	1-5, 8	Obvious Over Won in View of Norton
5	1-5, 8	Obvious Over Won in View of Talarico ‘911
6	1-5, 8	Obvious Over Won in View of Talarico ‘911 in Further View of Gallas

IPR2024-00639, ID, Paper 8

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'456 Patent: Instituted Grounds of Unpatentability

Ground	Claim(s)	Basis for Unpatentability
1	10, 11, 15, 17	Obvious Over Won
2	1-5, 7, 9, 12-14	Obvious Over Won in View of Norton
3	1-5, 7, 9, 12-14	Obvious Over Won in View of Talarico '911
4	1-5, 7, 9-15, 17	Obvious Over Umezawa
5	1-5, 7, 9-15, 17	Obvious Over Norton
6	1-5, 7, 9-15, 17	Obvious Over Talarico '911

IPR2024-00640, ID, Paper 8

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Definition of POSITA and the Parties' Experts

Level of Ordinary Skill adopted by the Board

- “A person of ordinary skill in the art 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.” (IPR2024-00636, ID, Paper 8, 7)

As of the Priority Date - March 8, 2011:

- **Petitioner's Expert - Mr. Delgatty**
 - Education: ***B.S. Industrial Design*** – Art Center College of Design
 - Experience: ***15 years as an athletic footwear designer:***
 - 1996-1999: E-West Designs - athletic footwear design and development
 - 1999-2001: DVS – skate shoe design and development
 - 2001-2008: Vans - Senior Director of Product Design
 - 2008-2011: Instructor of Industrial Design, including athletic footwear design
- **Patent Owner’s Expert – Mr. Markison**
 - Education: B.S.E.E. – Illinois Institute of Technology / J.D. Loyola School of Law
 - Experience: 1 year “working extensively on designing and developing athletic shoes” – (EX2008, ¶43) (Mr. Markison admitting “***he was not yet a POSITA***”)



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Mr. Markison is Biased

- Mr. Markison is: 1) Athalonz's Founder and CEO; 2) Athalonz's largest shareholder; 3) a named inventor and 4) the prosecuting attorney.
- Mr. Markison will receive 30% of any compensation related to the underlying litigation if Athalonz's shareholders are paid.
- Mr. Markison acknowledged having both personal and professional interests in the challenged patents being found valid.



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IPR2024-00639, Reply, 5 (citing Ex. 1023 at 11, 12, 15, 16 18)

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Mr. Markison is Biased

- Mr. Markison’s undeniably biased opinions should be given little, if any, weight.
 - *EC Data Sys., Inc. v. J2 Global, Inc.*, 2014 WL 7171966, at *4 (P.T.A.B. Dec. 15, 2014) (considering “the interest of the expert in the outcome of the case” when assessing the probative value of an expert’s opinion)
 - *eBay Inc. et al. v. Global Equity Management (SA) Pty. Ltd.*, No. IPR2016-01829, Paper 63, 15 (P.T.A.B. Apr. 19, 2018) (giving less weight to expert who was the inventor and a Director of Patent Owner)
 - *VSR Indus. Inc. v. Cole Kepro Intern’l, LLC*, IPR2015-00182, Paper 33 at 43 (P.T.A.B. May. 25, 2016) (testimony from the CEO of Patent Owner “is due less weight than a more objective source”)
 - *Ex Parte Magna*, 2014 WL 2360424, at *3 (the probative value of Petitioner’s expert opinion outweighed that of Patent Owner’s due to the expert’s employment by Patent Owner)
- Mr. Markison’s inability to provide an objective opinion is further demonstrated by his testimony and Athalonz documents that directly contradict his declaration.

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Claim Construction – “First Material” and “Second Material”

- Under Armour believed the parties agreed that the “first material” in the heel and the “second material” in the forefoot could be the same or different materials based on Athalonz’s infringement contentions. IPR2024-00639 Reply, 1 (citing Pet., 25; EX1012, Ex. E, pp. 38-53).
- Athalonz first proposed that the “first material” must be a different material, or different combination of materials, than the “second material” in its POPR.
- The Board adopted Athalonz’s proposal in the Institution Decisions, noting that the first and second materials “are different in some manner,” and that “the parties are free to explore this issue further at trial.”
- Petitioner has the right to address this construction and provide supporting evidence in its Reply.
 - “The Board cannot adopt a new claim construction without giving the petitioner an opportunity to respond.” *Axonics, Inc. v. Medtronic, Inc.*, 75 F.4th 1374, 1384 (Fed. Cir. 2023).
 - “The petitioner ... may introduce new evidence after the petition stage if the evidence is a legitimate reply to evidence introduced by the patent owner.” *Apple Inc. v. Andrea Elecs. Corp.*, 949 F.3d 697, 706-07 (Fed. Cir. 2020).
- Athalonz’s proposed construction contradicts both the intrinsic record and Athalonz’s own statements and should be rejected.

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IPR2024-00639, Reply, 1, 14

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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Claim Construction – “First Material” and “Second Material”

Claim Language

1. An athletic shoe comprises:
an upper section; and
a sole section coupled to the upper section, wherein the sole section includes:
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; and
a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed of a second material having a gradient compression factor, wherein when the athletic shoe is worn by an athlete and weight of the athlete is applied to the athletic shoe, the second material compresses to a first level near an outer edge of the sole section and the second material compresses to a second level near an inner edge of the sole section, wherein the second level of compression is greater than the first level of compression, wherein the forefoot platform, at the outer edge, has a first thickness at a position proximal to the heel platform and a second thickness at a toe portion, wherein the first thickness is greater than the second thickness.
6. The athletic shoe of claim 1 further comprises:
the first and second materials are constructed of the same one or more materials.
7. The athletic shoe of claim 1 further comprises:
the first compression factor is equal to the gradient compression factor.

‘768 Patent, EX1001

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Patent Owner’s Expert & Inventor

Q. So Claim 6 depends on Claim 1, correct?

A. Yes.

Q. And it states: The first and second materials are constructed of the same or one or more materials, right?

A. Yes, that's what it says.

Q. So you agree that the first and second material can be made of one singular material that’s the same?

A. Same of one or more materials. As far as the particular materials go, yes, but they still have different purposes. Because the first material in Claim 1 has a first compression factor and it's part of the heel, and then the second material has a gradient compression factor and it's part of the forefront.

Q. So yes or no? Do you agree that the material in the heel can be the same as the material in the forefoot described in Claim 1?

...

A. The material composing the first material of the claim and the second material of the claim could be of the same material.

Q. So that's yes?

A. Yes.

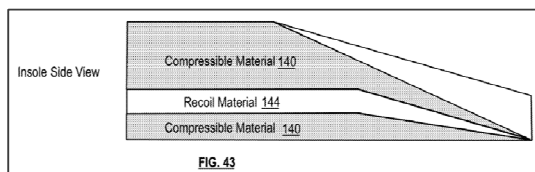
EX1023, 224:13-225:19

IPR2024-00639, Reply, 1-2

Claim Construction – “First Material” and “Second Material”

Specification

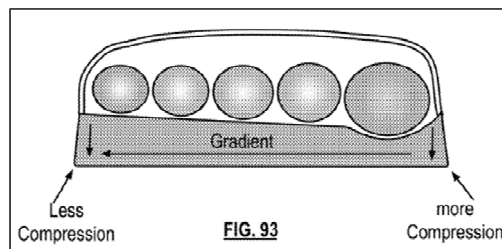
Patent Owner’s Expert & Inventor



EX1001, Fig. 43

FIG. 43 illustrates a cross-sectional side view diagram of another embodiment of an athletic positioning sole 10 and/or insole 12 that includes a first compressible material section 150, a second compressible material section 152, and a recoil material section 144. In this embodiment, the first compressible material section 150 is layered above the recoil material section 144, which is layered above the second compressible material section 152. The first compressible material section 150 includes one or more of the athletic positioning shapes and comprises a first compressible material. The second compressible material section 152 includes one or more of the athletic positioning shapes and comprises a second compressible material. For example, the first compressible material may be more compressible material than that of the second compressible material.

EX1001, 17:48-62



EX1001, Fig. 93

FIGS. 93 and 94 illustrate a cross-sectional front view diagram and a cross-sectional side view diagram of another embodiment of an integrated athletic positioning sole and insole. The integrated sole 10 and insole 12 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 be adjustable to adjust the athletic position (e.g., include removable plates, air bladders, etc.).

EX1001, 27:50-59

Q. So if you're going to ...decide what material you're going to make the heel of the shoe, ... there's really two options. It's either the same material in the heel and the forefoot or different materials in the heel and the forefoot, correct? ...

A. So it's not that -- it's not that simple of a question.

Q. Why not?

A. Well, you know, what's the purpose of the heel? What's the purpose of the rest of the shoe? That affects the shape and materials that are selected.

Q. I'm just talking only about materials.

A. So, yes, a heel, ... in a general sense, could be the same or different materials.

Q. Do you believe you disclose both of those options in the asserted patents? ...

A. Yes.

EX1023, 47:1-48:1

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IPR2024-00639, Reply, 2

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Claim Construction – “First Material” and “Second Material”

Specification – use of “first” and “second” in other contexts

The heel section **21** has a first dimension that is substantially uniform from the outer edge to the inner edge along a back edge of the apparatus and from the back edge of the apparatus to a front portion of the heel section **21**. The toe section **25** has a second dimension at the front outer edge of the apparatus and a third dimension at the front inner edge of the apparatus. The first dimension has a magnitude that is greater than or equal to a magnitude of the second dimension and the magnitude of the second dimension is greater than a magnitude of the third dimension.

EX1001, 10:17-26

than its upper portion to provide lateral stability. As shown, the outer edge of the sport specific bottom **190** angles in at a first angle (e.g., $\theta 1$) and the inner edge of the bottom angles in at a second angle (e.g., $\theta 2$). When the shoe includes the athletic positioning insole **12** and/or sole **10**, it may be desirable to have the first angle larger than the second to provide more lateral stability, but both angles may be equal. The sport specific bottom **190** may also include a sloped bottom as discussed with reference to FIGS. **63** and **64**. Note that the heel section may include a heel cup area **214**

EX1001, 22:4-11

Markison’s U.S. Patent No. 11,206,878

In general, the chest protector **135** includes an outer layer, an inner layer, and an impact force dampening and defusing structure. The outer layer includes a first material composition and has a geometric shape to conform to the shape of a human torso. The inner layer includes a second material composition and, when the chest protector is worn, the inner layer is adjacent to the chest. In an embodiment, each of the inner layer and the outer layer includes a rubber material, a foam material, a padding material, a plastic material, a gel material, a carbon fiber material, a cloth material, a polyester material, a moisture absorbing material, a moisture wicking material, and/or a silicon material. In an embodiment, the first and second material compositions are the same. In another embodiment, the first and second material compositions are different.

EX1024, 23:35-36

10. A helmet comprises:
an inner layer including a first material composition, wherein the inner layer is adjacent to a head when the helmet is worn;
an impact force dampening and defusing structure juxtaposed to the inner layer, wherein the impact force dampening and defusing structure includes a plurality of components arranged to reduce pressure on the head when an impact force strikes the helmet by reducing a body part impact force resulting from the impact force and by increasing a body part impact area with respect to a helmet impact area receiving the impact force; and
a force dampening and defusing outer shell having a geometric shape to form an exterior surface of the helmet, wherein the force dampening and defusing outer shell is juxtaposed to the impact force dampening and defusing structure and includes a set of components arranged to reduce pressure on the impact force dampening and defusing structure when the impact force strikes the helmet by reducing an impact force dampening and defusing structure force resulting from the impact force and by increasing an impact force dampening and defusing structure impact area with respect to the helmet impact area receiving the impact force, and wherein the set of components are encased with a second material composition to form a smooth and compressible surface of the force dampening and defusing outer shell.
11. The helmet of claim **10** further comprises:
the second material composition being different than the first material composition.

EX1024, claims 10-11

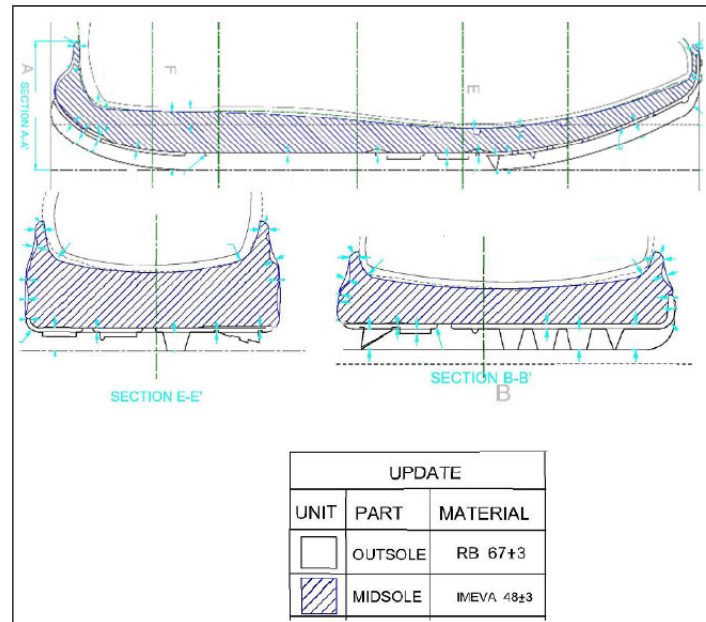
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IPR2024-00639, Reply, 2

Claim Construction – “First Material” and “Second Material”

Athalonz's Infringement Allegations



EX1025, 580; EX1026

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IPR2024-00639, Reply, 3-4

Claim Construction – “First Material” and “Second Material”

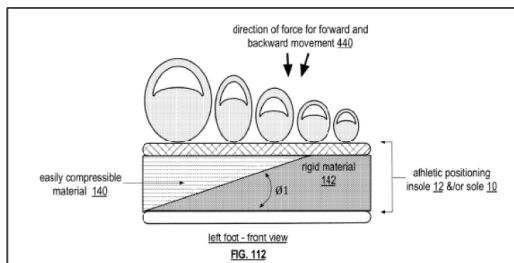
- Athalonz’s cases regarding “first” and “second” elements or components (IPR2024-00639, POR, 16; POPR, 20) are easily distinguishable.
- Here, the claim terms recite an *attribute* of a component, *i.e.* the *type* of material, and the modifier delineates multiple instances of that attribute, which could be the same or different.
- In Athalonz’s cases, “first” and “second” were enumerating and differentiating multiple *members of a group*: (e.g., pivot points; razor blades; sidewall surfaces; or opposed ends):
 - *Free Motion Fitness, Inc. v. Cybex Int’l, Inc.*, 423 F.3d 1343, 1348 (Fed. Cir. 2005) (“first” and “second” pivot points are different pivot points)
 - *Gillette Co. v. Energizer Holdings, Inc.*, 405 F.3d 1367, 1373 (Fed. Cir. 2005) (“first,” “second” and “third” razor blades are different blades)
 - *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003) (“first” and “second” sidewall surfaces are different surfaces)
 - *Springs Window Fashions LP v. Novo Indus., L.P.*, 323 F.3d 989, 992 (Fed. Cir. 2003) (“first” and “second” opposed ends are different ends)

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Claim Construction – “Gradient Compression Factor”

1. An athletic shoe comprises:
an upper section; and
a sole section coupled to the upper section, wherein the sole section includes:
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; and
a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed of a second material having a gradient compression factor, wherein when the athletic shoe is worn by an athlete and weight of the athlete is applied to the athletic shoe, the second material compresses to a first level near an outer edge of the sole section and the second material compresses to a second level near an inner edge of the sole section, wherein the second level of compression is greater than the first level of compression, wherein the forefoot platform, at the outer edge, has a first thickness at a position proximal to the heel platform and a second thickness at a toe portion, wherein the first thickness is greater than the second thickness.

‘768 Patent, EX1001



EX1001,
Fig. 112

Ex. 1001, 27:47-67 (emphasis added). Based on this disclosure, 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.

This definition is also supported by the plain meaning of the term “gradient,” which is defined as “change in value of a quantity (as temperature, pressure, or concentration) with change in a given variable and esp. per unit distance in a specified direction.” Ex. 1019, Merriam-Webster’s Collegiate Dictionary.

IPR2024-00639, Pet. 18

- Petitioner’s proposed construction for “gradient compression factor” does not change the position at which the claimed compressibility is measured, *i.e.* “near” the “edges.”
- Rather, the proposed construction requires that the forefoot platform gets increasingly less compressible as you move from the inside to the outside of the forefoot between those measurement points.

IPR2024-00639, Reply, 9; Pet., 5

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Umezawa – ‘768 Ground 1

‘768 Patent: Claim 1	Umezawa
1. An athletic shoe comprises:	Undisputed
an upper section; and	Undisputed
a sole section coupled to the upper section, wherein the sole section includes:	Undisputed
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; and	
a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed of a second material having a gradient compression factor, wherein when the athletic shoe is worn by an athlete and weight of the athlete is applied to the athletic shoe, the second material compresses to a first level near an outer edge of the sole section and the second material compresses to a second level near an inner edge of the sole section, wherein the second level of compression is greater than the first level of compression,	
wherein the forefoot platform, at the outer edge, has a first thickness at a position proximal to the heel platform and a second thickness at a toe portion, wherein the first thickness is greater than the second thickness.	

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Umezawa – ‘456 Ground 4

‘456 Patent: Claim 1	Umezawa
1. An athletic shoe comprises:	Undisputed
an upper section; and	Undisputed
a sole section coupled to the upper section, wherein the sole section includes:	Undisputed
a heel platform having a first height that is substantially uniform from an inner edge of the sole section to an outer edge of the sole section , wherein the heel platform is constructed of a first material; and	
a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed of a second material having a gradient compression factor, wherein, when the athletic shoe is worn by an athlete and weight of the athlete is applied to the athlete shoe, the second material compresses to a first level near an outer edge of the sole section and the second material compresses to a second level near an inner edge of the sole section, wherein the second level of compression is greater than the first level of compression.	

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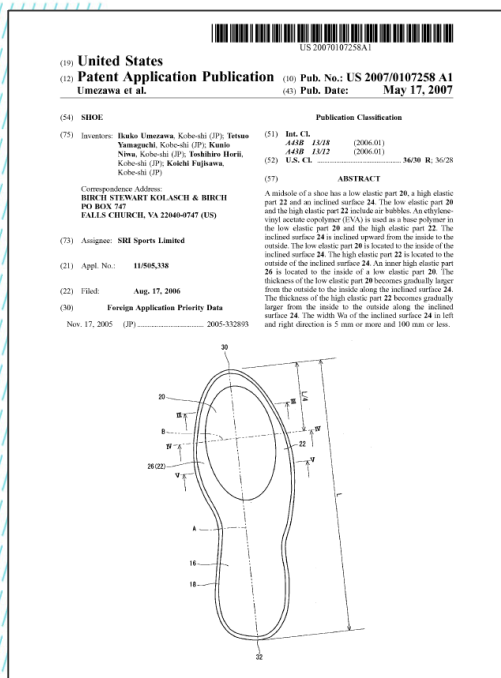
Umezawa – ‘456 Ground 4

‘456 Patent: Claim 10	Umezawa
1. An athletic shoe comprises:	Undisputed
an upper section; and	Undisputed
a sole section coupled to the upper section, wherein the sole section includes:	Undisputed
a heel platform having a first height that is substantially uniform from an inner edge of the sole section to an outer edge of the sole section , wherein the heel platform is constructed of a first material; and	
a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed to have a first level of compression proximal to the outer edge of the shoe and a second level of compression proximal to an inner edge of the shoe, wherein the second level of compression is greater than the first level of compression	

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Prior Art Reference Umezawa



EX1006

[0003] The present invention relates to shoes suitable for golf, tennis, squash, field hockey, basketball, aerobic exercise or the like.

EX1006, ¶3

[0036] This midsole 10 has a low elastic part 20 and a high elastic part 22. The elastic modulus of the low elastic part 20 is lower than that of the high elastic part 22. When a compression load is applied to the midsole 10, the low elastic part 20 is more easily deformed than the high elastic part 22. The low elastic part 20 may comprise two (2) or more parts having different elastic moduli. The high elastic part 22 may comprise two (2) or more parts having different elastic moduli.

EX1006, ¶36

[0043] In this midsole 10, thickness of the low elastic part 20 and high elastic part 22 gradually changes along the inclined surface 24. Accordingly, the compression deformation in the midsole 10 changes continuously along the inclined surface 24 from the inside to the outside. The compression deformation does not change rapidly. The continuous change contributes to stability of swing. A stable swing suppresses variation of flight distance. Furthermore, a stable swing suppresses variation of flight direction of a golf ball. The midsole 10 whose compression deformation changes continuously does not cause discomfort during walking.

EX1006, ¶43

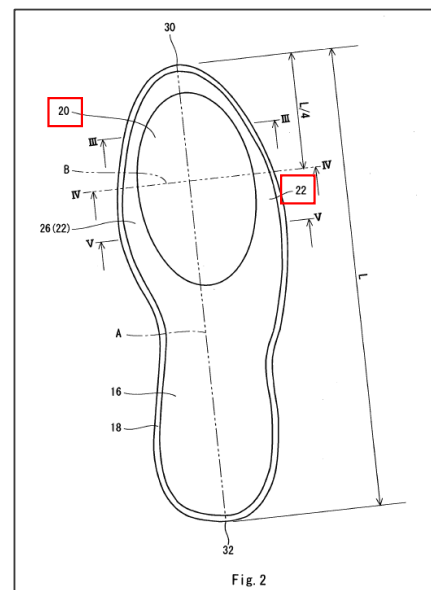


Fig. 2

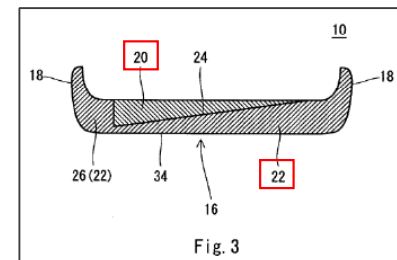


Fig. 3

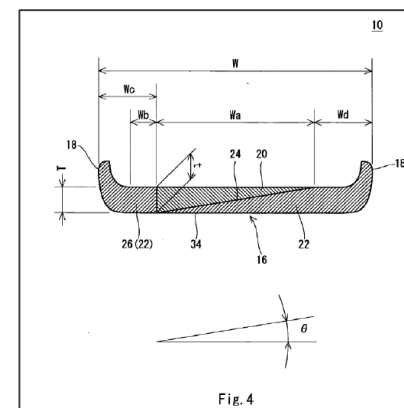


Fig. 4

EX1006, Figs. 2-4

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

IPR2024-00639, Pet., 7-9

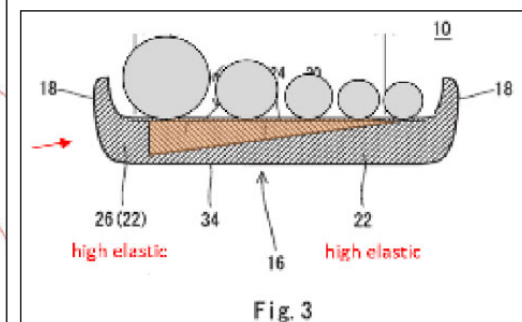
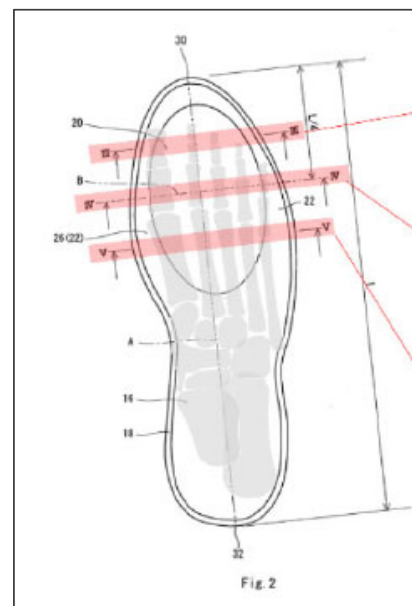
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Umezawa - Greater Compression / Gradient Compression Factor

The Board

“[O]ne of ordinary skill in the art would have likely understood ‘gradient compression factor’ to mean that the insole material may have varying levels of compressibility. And, when read in the context of claim 1, it means that the second material is increasingly less compressible from the inner edge to the outer edge of the forefoot platform.”

“By describing that wearing the shoe causes midsole 10 to compress with larger compression deformation on the inside of midsole 10, Umezawa makes clear that the player’s foot must be on top of the compression deformation to cause such deformation and, thus, must necessarily be ‘near an inner edge’ and ‘near an outer edge of the sole section,’ under an interpretation based on a where a foot sits in a shoe.”



IPR2024-00639 Reply, 10-11

IPR2024-00639 ID, Paper 8, 11, 20-21

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

IPR2024-00639, Reply, 9-11

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Umezawa - Greater Compression / Gradient Compression Factor

Patent Owner's Expert & Inventor

[0038] When a golf player wears these golf shoes 2 and the body weight of the golf player is applied to the bottom part 6, this midsole 10 is compressed. Since the thickness of the low elastic part 20 is larger in the inside, the inside compression deformation is larger. Since the thickness of the high elastic part 22 is larger in the outside, outside compression deformation is smaller. In this midsole 10, applying the body weight generates unbalanced deformation. Deformation of the midsole 10 displaces the position of an upper surface 28 (FIG. 1) of the insole 8. The downward displacement of the upper surface 28 in the inside is larger than the downward displacement of the upper surface 28 in the outside. The insole 8 inclines upward from the inside to the outside. The foot of a golf player also inclines upward from the inside to the outside. The body weight of a golf player is mainly applied to the inside. As mentioned above, when a golf player swings, the golf player kicks the ground with the inside of the kicking foot. Since the foot is inclined, the golf player easily transfers the force to the ground. This midsole 10 is suitable for the right foot of a right-handed golf player. These golf shoes 2 contribute to generation of high head speed. The large head speed generates a long flight distance.

EX1006, ¶38

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Q. Do you agree that in Paragraph 38 the midsole is described as compressing more on the inside of the forefoot than the outside of the forefoot when worn by a golfer?
A With respect to the Lower Elastic Part 20, yes.

Does Paragraph 38 describe the foot of the golfer inclining upward from the inside to the outside of the shoe when the shoe is worn?

A Well --

Q It's a yes-or-no question.

...

A. So does the patent say: The foot of a golfer also inclines upward from the inside to the outside? Taking that sentence alone, that's what it says.

Q. That's based on the compression of Elastic Part 20, correct?

A. Yes.

Q. What does Claim 1 teach to a person of skill in the art?

A ... The claim reads: A shoe comprising a bottom part wherein downward displacement on an inside of a top surface of the bottom part is larger than downward displacement on the outside of the top surface when body weight of a wearer is applied to the top surface.

Q. That's what it states. What do you think it means by "downward displacement" in Claim 1?

A. Well, again, referring back to the elastic part and looking at Figure 4, the more compressible material towards the inner part is going to compress more because there's more of it than as you move towards the out part of the foot. ...

EX1023, 60:11-16, 61:13-63:5

Umezawa – Substantially Uniform Height Heel Platform

[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.

EX1006, ¶32

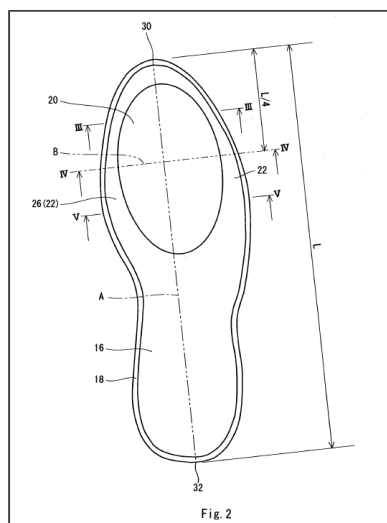


Fig. 2

VENABLE LLP EX1006, Fig. 2

[0052] The length designated by both-oriented arrow T in FIG. 4 is the thickness of the midsole 10. The thickness T is measured on a cross-section surface along the lateral line B. The thickness T is the maximum thickness among the parts except for the side wall 18. The thickness T is preferably 2 mm or more and more preferably 5 mm or more. The thickness T is preferably 25 mm or less, more preferably 20 mm or less and particularly preferably 15 mm or less. The length designated by both-oriented arrow t in FIG. 4 is the maximum thickness of the low elastic part 20. The thickness t is measured on a cross-section surface along the lateral line B. From the viewpoint that the top surface of the insole 8 is sufficiently inclined, the ratio of the thickness t to the thickness T is preferably 30% or more, more preferably 40% or more, still more preferably 50% or more, and particularly preferably 80% or more. In the embodiment shown in FIG. 4, this ratio is designed to be 100%. In other words, the low elastic part 20 is slightly exposed on the bottom surface 34 of the midsole 10. FIG. 3 clearly shows that the low elastic part 20 is not exposed on the bottom surface 34 on a cross-section surface along III-III line. FIG. 5 clearly shows that the low elastic part 20 is not exposed on the bottom surface 34 on a cross-section surface along V-V line.

EX1006, ¶52

[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.

EX1006, ¶33

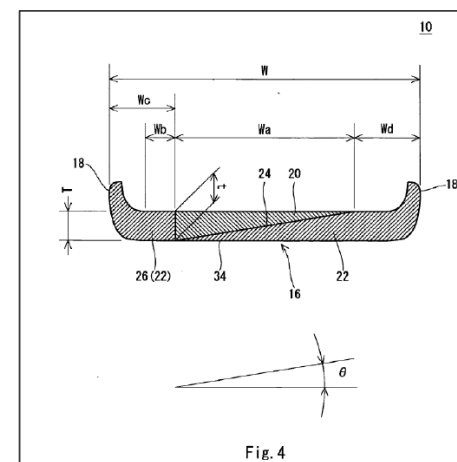


Fig. 4

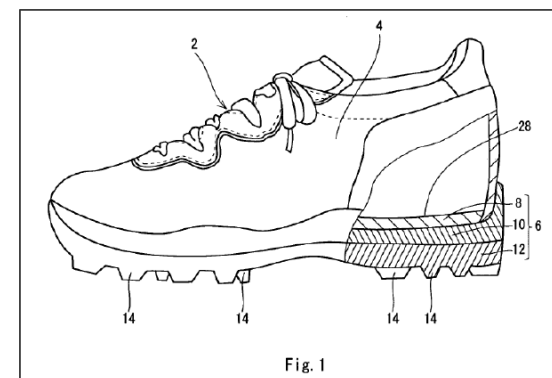
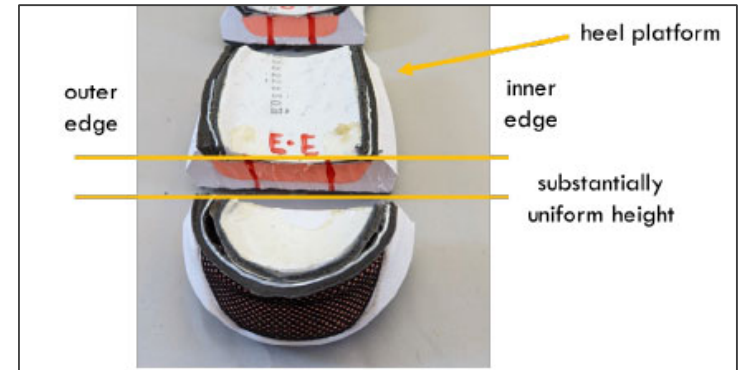


Fig. 1

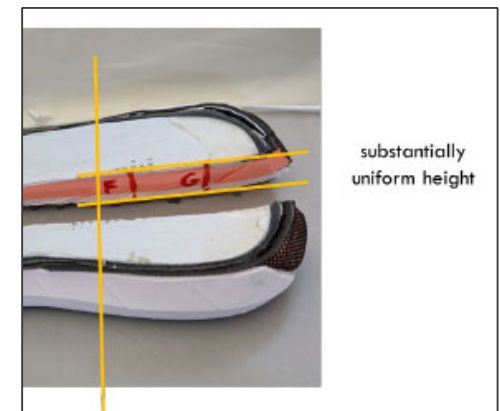
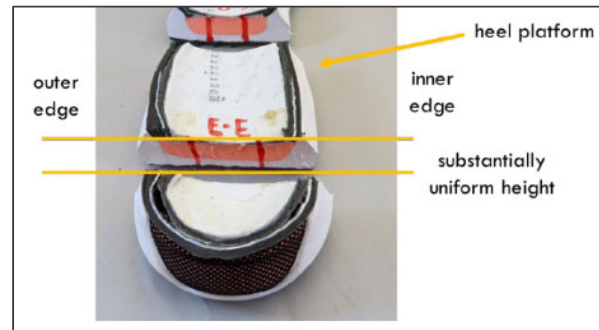
EX1006, Figs. 1, 4

“Conventional” Shoe Design – Heel Platform Having Substantially Uniform Height

- Claim Requirements:
 - “from an inner edge ... to an outer edge” – ‘456 Patent, claims 1 and 10
 - “around a perimeter of the heel platform” – ‘768 Patent, Claim 1



EX1025, p. 318



EX1025, pp. 578-79

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

IPR2024-0039 Pet., 18-19

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“Conventional” Shoe Design – Heel Platform Having Substantially Uniform Height

Petitioner’s Expert

G. “Conventional” Shoes

61. A POSITA would understand that shoes in general, including athletic shoes and golf shoes, have several traits and features that are “conventional” or “standard.” These conventional design traits include a heel platform that is substantially uniform around its perimeter, at least based on Patent Owner’s apparent interpretation of this limitation, as discussed in Section VI, above. Having a heel platform that is substantially uniform in height throughout, including around the heel platform’s perimeter, is standard shoe design, both before and after the priority date of the ’768 patent.

IPR2024-00639, EX1002, p. 24

3. Mr. Markison suggests that I based my opinion regarding the design traits of “conventional” shoes merely on the outward appearance of shoes I included pictures of in my initial declaration. EX2008, ¶¶150-151. That is incorrect. Rather, I am aware of “conventional” shoe design traits (including having a heel platform that is substantially uniform in height around its perimeter and a sole that is thicker at a position proximal to the front edge of the heel platform than at the toe portion) based on my extensive experience and over 25 years in the industry. I simply included images of some shoes that I described as having these traits in my initial declaration. EX1002, ¶¶61-69.

IPR2024-00639, EX1022, p. 2

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IPR2024-00639 Reply, 6-7

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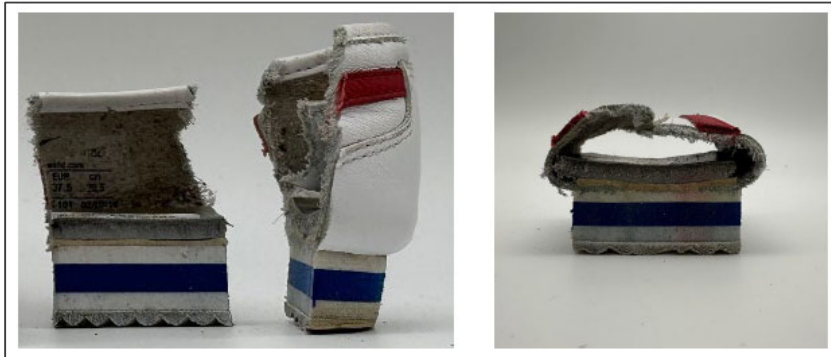
“Conventional” Shoe Design – Heel Platform Having Substantially Uniform Height



EX1022, p. 4



EX1022, p. 9



EX1022, p. 8



EX1022, p. 10

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

IPR2024-00639 Reply, 6-7

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“Conventional” Shoe Design – Heel Platform/Section/Area Having Substantially Uniform Height or Substantially No Slope

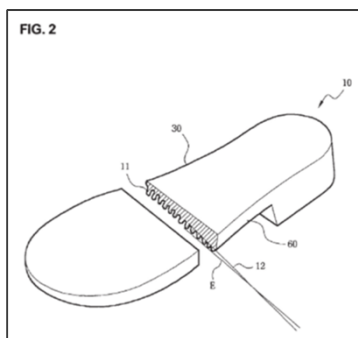
Patent Owner’s Expert & Inventor

Q. Do you agree the heel portion would be flat from the inside of the shoe to the outside of the shoe if there was no incline plane?

A ... So you asked if -- if, hypothetically, there's a conventional heel put on the teaching of Kim, would that be flat from ... inside edge to outside edge, at least in one spot cross-section of the heel. And if they put a conventional heel like they have on a dress shoe, then yes, there would be a portion where it would be flat from the inside edge to the outside edge.

Kim

EX1023, 99:1-16



VENABLE EX1005, Fig. 2
LLP

So in Figure 3 of Rubin, does it look like that heel section is angled at all?

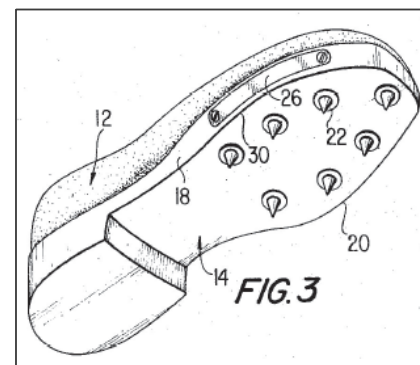
A No, taking Figure 3 in a vacuum, absent of what the patent teaches, it doesn't -- it appears to be a conventional dress shoe block heel.

Q “Conventional” meaning having a consistent height from the inside to the outside of the heel section; is that right?

A Yes.

Rubin

EX1023, 139:7-15



EX1007, Fig. 3

“Conventional” Shoe Design – Heel Platform Having Substantially Uniform Height

Patent Owner’s Expert & Inventor

So I'll have you turn to Column 20 of the '291 patent, starting at Line 48. ... it describes: This embodiment may include an athletic-positioning sole and a conventional insole or a conventional sole and an athletic-positioning insole. Do you see that?

A Let me re-read again. Yes.

So you're distinguishing between an athletic-positioning sole and a conventional sole in that paragraph, correct?

A Yes.

Q **What is a conventional sole?**

A Well, in the context of this particular paragraph, **it's not having -- not contributing to the athletic-positioning shape.**

Q **So what would that mean as far as the shape of the sole?**

A So if we went to Figure 63, which is the paragraph I was talking about. So just Figure 63. So if, for example, **the insole or a conventional insole, it would have in Figure 63 roughly the same thickness under the big toe all the way across to the little toe.**

Q **And same thing for an athletic-positioning sole, that same idea?**

A Yes.

Q And this is described in Column 35. So starting about Line 7, do you see that paragraph?

A Yes. ...

Q So if I understand this right, these figures are showing what's called an athletic-positioning spike pattern; is that right?

A Yes.

...

Q And **here it describes that this athletic-positioning spike pattern may be used with a sole having a conventional sole design. Do you see that?**

A **That's one of the options, yes.**

Q **And this same meaning, conventional sole design would be a flat sole from the inside to the outside; is that your understanding?**

A Yeah ...

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EX1023, 86:17-87:19

EX1023, 88:10-89:10

“Conventional” Shoe Design – Heel Platform Having Substantially Uniform Height

Patent Owner’s
Expert & Inventor

Q. Exhibit 2014 of your declaration. ... Claim charts for the ‘786, ‘291 and ‘760 Athalonz products. ... So you understand that this was included as an exhibit to your declarations, correct?

A. I do now, yes. ...

Q. I believe what's -- what's being shown in these charts is that **the Athalonz EnVe golf shoe is a product that practices these three patents; is that a proper understanding of what's shown here?**

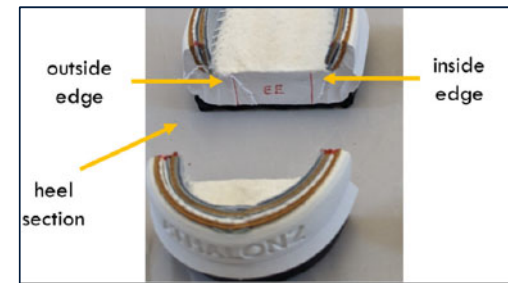
A. **I think that's a fair statement.**

EX1023, 173:4-22

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Athalonz EnVe



EX1036, pp. 9, 15



EX1022, p. 12

IPR2024-00639 Reply, 7

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“Conventional” Shoe Design – Heel Platform Having Substantially Uniform Height

Athalonz EnVe

Features:

THE FIRMEST STANCE

- Optimal Athletic Positioning (OAP) Technology
- Grip & Glide Tread Pattern
- Re-Enforced Lateral Wall

ALL-DAY COMFORT

- Flex Zone
- Open Sock Liner
- Spikeless Tread Pattern



Athalonz OAP technology shifts the way the body interacts with the ground to provide horizontal and vertical reactive forces to keep the foot firmly positioned in the shoe and hence firmly connected to the ground. In general, the OAP technology includes a conventional heel section and an athletic positioning forefoot section that has a conventional heel section to toe section slope on the lateral side and a slightly greater slope from heel section to toe section on the medial side; creating about a four-degree lateral to medial forefoot downward angle. The horizontal reactive forces produced by the OAP Technology are further enhanced by the **Re-Enforced Lateral Wall**.

EX1027



Markison explains the construction of the EnVe:

“The heel is conventional but as you go forward in the shoe, it transitions you to the inside of your foot,” he says. “It mimics the natural movement of walking — you land on your heel, roll to your toe and push. When you’re in that athletic stance, your knee is inward just a little bit.”

EX1028, pp. 3, 5

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IPR2024-00639 Reply, 7

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“Conventional” Shoe Design – Heel Platform Having Substantially Uniform Height

Q. Athalonz contends that the shoes charted below are representative of other Athalonz products as set forth in Athalonz’s infringement contentions. Do you know what other Athalonz products are -- according to you, practice these patents, the sole slope patents?

A. Every product we’ve made practiced these patents.

Q. So I happen to notice, are those the new Mangrove shoes you’re wearing right now?

A. Yes.

Q. Do you believe those also fall within the claim limitations and practice the sloped sole?

A. Yes. And thank you for noticing.

Athalonz Mangrove



3:18 golfer so as you can see the platform
3:20 here in the heel sections it's flat so
3:23 just like a normal heel in any kind of
3:25 golf shoe it's flat but as you work your
3:27 way forward from the heel to the toe we
3:30 have this slope that gradually tapers
3:33 this way so it puts the energy of your
3:37 contact with the ground here on the ball
3:39 of the foot and big toe area and it does
3:41 so on both the left side and the right

EX1029

EX1023, 175:3-19

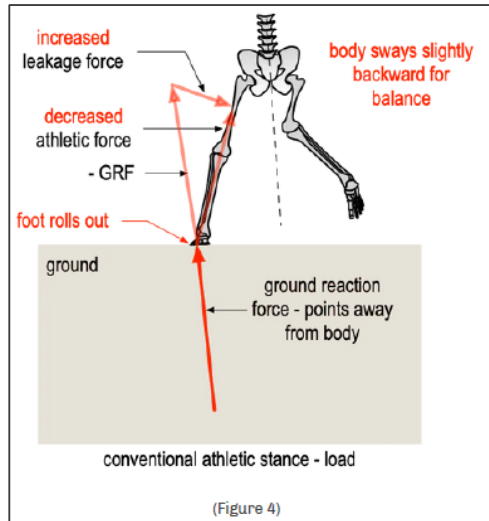
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IPR2024-00639 Reply, 7-8

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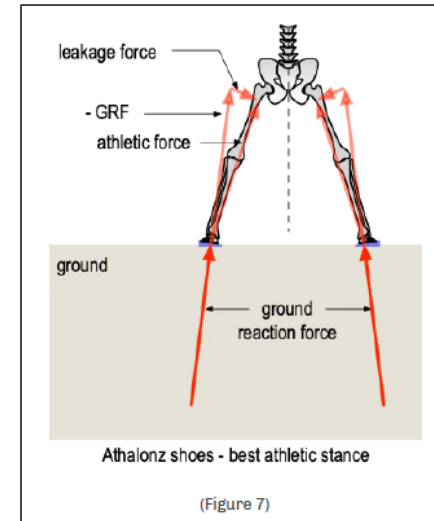
“Conventional” Shoe Design – Heel Platform Having Substantially Uniform Height



Accordingly, when we load in a conventional athletic stance in name brand shoes, we increase our leakage force, reduce our athletic force, and thus reduce our power to hit or throw a ball.

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EX1030, p. 4

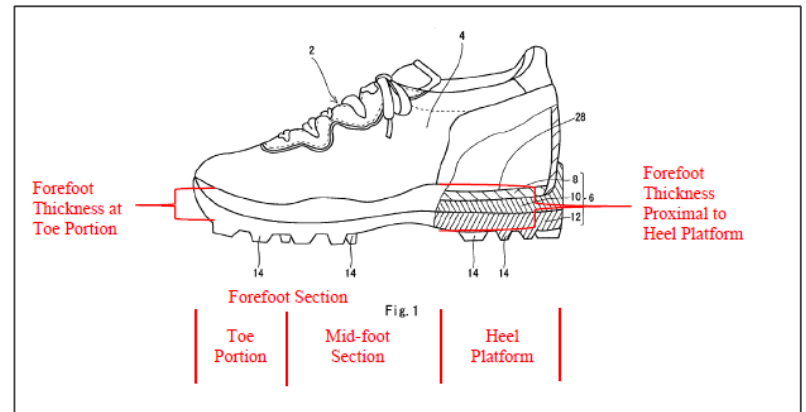


So, for the same amount of body force as with a **conventional pair of shoes with a flat sole**, the Athalonz shoes increase the ground reaction force, which increases the athletic force and reduces the leakage force.

EX1030, p. 6

Umezawa – Forefoot Platform Outer Edge Thicker Near Heel than Toe

- This limitation describes a shoe that includes a sole that is thicker at a position proximal to the front edge of the heel platform than at the toe portion. Ex. 1002, ¶ 75.
- This sole design is common in almost all shoes, and has been a conventional design feature in athletic shoes, long before the priority date as it places the foot in a more natural position and is more comfortable for running, walking, and sports-related activities. *Id.*
- A POSITA would understand that Umezawa’s disclosure that the “material and structure for the outsole 12 are equal to those of known outsole(s)” (Ex. 1006, ¶ 32) 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.



IPR2024-00639, Pet. 28

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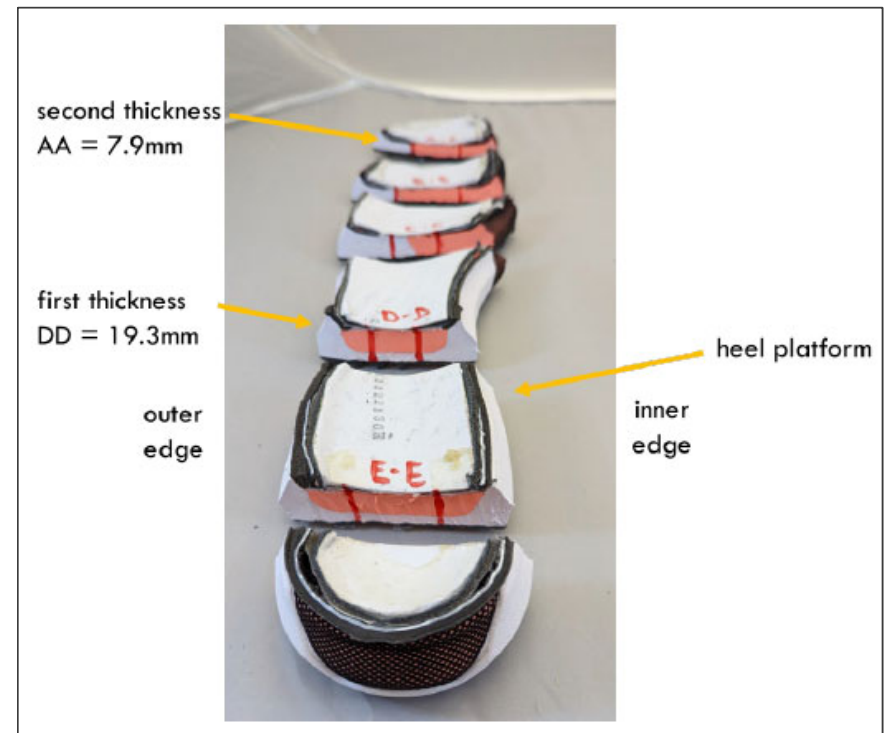
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IPR2024-00639 Reply, 12-13

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“Conventional” Shoe Design – Thicker Forefoot Platform Proximal to Heel Platform than at a Toe Portion at Outer Edge

- Claim Requirement:
 - “wherein the forefoot platform at the outer edge has a first thickness at a portion proximal to the heel platform and a second thickness at a toe portion, wherein the first thickness is greater than the second thickness” – ‘768 Patent, claim 1



EX1025, p. 616

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

“Conventional” Shoe Design – Thicker Forefoot Platform Proximal to Heel Platform than at a Toe Portion at Outer Edge

Petitioner’s Expert

62. Conventional design traits 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. This limitation describes a shoe that includes a sole that is thicker at a position proximal to the front edge of the heel platform than at the toe portion. This sole design is common in almost all shoes, and has been a conventional design feature in athletic shoes long before the ‘768 patent’s priority date as it places the foot in a more natural position and is more comfortable for running, walking, and sports-related activities.

63. In fact, over the course of my career, the vast majority, if not all, of the shoes I designed or oversaw the design of had both of these features. For example, these features was included in the shoes I designed for Vans that were sold in the United States between 2002 and 2005, as depicted below.

IPR2024-00639, EX1002, pp. 17-18

II. “CONVENTIONAL” SHOES

3. Mr. Markison suggests that I based my opinion regarding the design traits of “conventional” shoes merely on the outward appearance of shoes I included pictures of in my initial declaration. EX2008, ¶¶150-151. That is incorrect. Rather, I am aware of “conventional” shoe design traits (including having a heel platform that is substantially uniform in height around its perimeter and a sole that is thicker at a position proximal to the front edge of the heel platform than at the toe portion) based on my extensive experience and over 25 years in the industry. I simply included images of some shoes that I described as having these traits in my initial declaration. EX1002, ¶¶61-69.

4. While I do not believe any additional evidence is needed, further evidence is provided below showing that the shoes I designed for Vans that were sold in the United States between 2002 and 2005 have a heel platform that is substantially uniform in height around its perimeter and a sole that is thicker at a position proximal to the front edge of the heel platform than at the toe portion, at least based on Patent Owner’s apparent interpretation of these limitations.

IPR2024-00637, EX1022, p. 3

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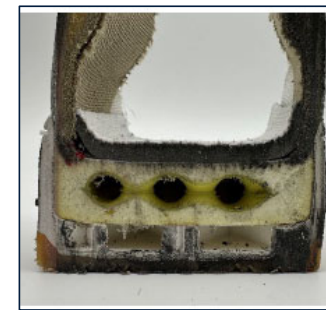
DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

IPR2024-0039 Reply, 6-7

“Conventional” Shoe Design – Thicker Forefoot Platform Proximal to Heel Platform than at a Toe Portion at Outer Edge



EX1022, p. 4



EX1022, p. 9



EX1022, p. 8



EX1022, p. 9

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IPR2024-00639 Reply, 6-7

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“Conventional” Shoe Design – Thicker Forefoot Platform Proximal to Heel Platform than at a Toe Portion at Outer Edge

Athalonz EnVe

Features:

THE FIRMEST STANCE

- Optimal Athletic Positioning (OAP) Technology
- Grip & Glide Tread Pattern
- Re-Enforced Lateral Wall

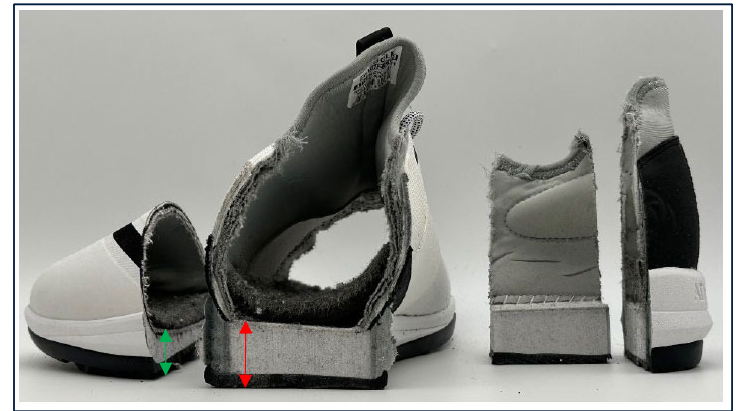
ALL-DAY COMFORT

- Flex Zone
- Open Sock Liner
- Spikeless Tread Pattern



Athalonz OAP technology shifts the way the body interacts with the ground to provide horizontal and vertical reactive forces to keep the foot firmly positioned in the shoe and hence firmly connected to the ground. In general, the OAP technology includes a conventional heel section and an athletic positioning forefoot section that has a conventional heel section to toe section slope on the lateral side and a slightly greater slope from heel section to toe section on the medial side; creating about a four-degree lateral to medial forefoot downward angle. The horizontal reactive forces produced by the OAP Technology are further enhanced by the **Re-Enforced Lateral Wall**.

EX1027



EX1022, p. 12

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IPR2024-00639 Reply, 6-7

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“Conventional” Shoe Design – Thicker Forefoot Platform Proximal to Heel Platform than at a Toe Portion at Outer Edge

Admitted Prior Art

Patent Owner’s Expert & Inventor

BACKGROUND OF THE INVENTION

Description of Related Art

spikes. In some designs of baseball spikes, the heel portion
5 of the shoe may be higher than the toe portion of the shoe from a side perspective.

EX1001, 2:4-6

102. This feature is also present in Applicant admitted prior art. In the Background section of the ‘768 patent, the ‘768 patent explicitly discloses that “[i]n some designs of [prior art] baseball spikes, the heel portion of the shoe may be higher than the toe portion of the shoe from a side perspective.” Ex. 1001, 1:63-2:6, 2:14-15. A POSITA would understand that a shoe having a higher heel portion than toe portion would include a sole that is thicker at a position proximal to the front edge of the heel platform than at the toe portion.

IPR2024-00639, EX1002, ¶102

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

IPR2024-00639 Reply, 6-7

Q. This is the limitation where: A forefoot platform wherein at the outer edge the thickness at a position proximal to the heel platform is greater than the thickness of the toe portion. So can you explain what that limitation means to you?

A. The thickness proximal to the heel and a second thickness at a toe portion where the first thickness is greater. So as you move from the heel to the toe, towards the heel it has this first thickness which -- then towards the toe on the outer edge it has the second thickness. And the first thickness is greater than the second.

Q. Are you familiar with the term or the phrase, a heel-to-toe drop of a shoe? Is that a term that you're familiar with?

A. I mean, I know what it means.

Q. What does it mean?

A. I mean, it's basically what I cited in that Background section of our patent, where sometimes the heel is higher than the toe.

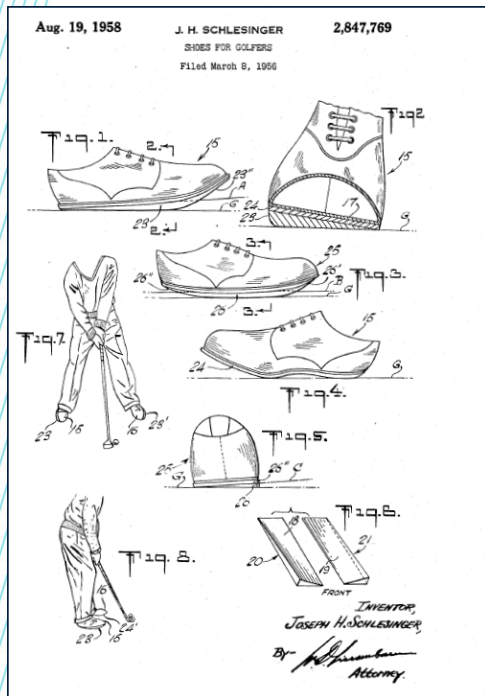
Q. So is that a similar description of what you just described as the forefoot platform having a thickness at a position proximal to the heel greater than the thickness at the toe?

A. Well, that's only at the outer edge.

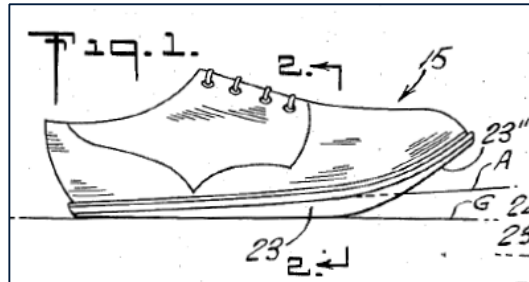
EX1023:150:22-152:5

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“Conventional” Shoe Design – Thicker Forefoot Platform Proximal to Heel Platform than at a Toe Portion at Outer Edge



EX1035



It is therefore the principal object of this invention to provide novel and improved means to automatically compel a golfer to assume the correct position when taking his stance, so that effective footwork is acquired for proficient performance.

EX1035, 1:36-40

The construction created for the sole of a golf shoe to have a space between the heel portions and the ground, which shoes when worn and pressed downward on their heel regions to contact the ground as the shoes of Fig. 3, and the creation of the shoes as in Fig. 1. where the heel portions are in contact with the ground, as well as the cooperative action of the upper surfaces sloping in downward convergent relation, are novel and efficient contributions to this art for obtaining a rearward transposition of the weight of the player through the heel regions of the feet and to properly bend the knees for creating a firm anchorage with the ground.

EX1035, 3:49-4:5

Patent Owner's Expert & Inventor

Q. In Column 3 ... starting on Line 45. ... Is that describing the shoe design in Figure 1 as novel, a novel design, when this patent was filed?

A. That's what they claim.

Q. Back in Column 1, Line 36, it says:

Therefore, the principal object of this invention to provide novel and improved unions to automatically compel a golfer to assume the correct position when taking his stance so an effective footwork is acquired for proficient performance. So they explain that the principal object of this invention is to provide an novel and improved means for a golfer; is that right?

A. Yes, that's what that says, and then when you take that in combination with what you just previously read in Column 4, they're claiming the proper stance has the weight in the heels. That's contrary to what we teach an athletic positioning to be.

EX1023, 154:5-155:18

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Umezawa + Gallas – ‘768 Ground 2

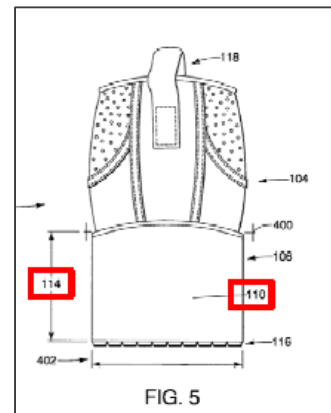
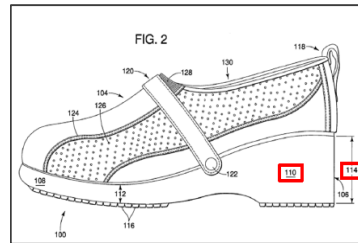
‘768 Patent: Claim 1	Umezawa	Gallas
1. An athletic shoe comprises:	Undisputed	
an upper section; and	Undisputed	
a sole section coupled to the upper section, wherein the sole section includes:	Undisputed	
a heel platform having a first height that is substantially uniform around a perimeter of the heel platform , wherein the heel platform is constructed of a first material having a first compression factor; and		
a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed of a second material having a gradient compression factor, wherein when the athletic shoe is worn by an athlete and weight of the athlete is applied to the athletic shoe, the second material compresses to a first level near an outer edge of the sole section and the second material compresses to a second level near an inner edge of the sole section, wherein the second level of compression is greater than the first level of compression,	 (see Ground 1)	
wherein the forefoot platform, at the outer edge, has a first thickness at a position proximal to the heel platform and a second thickness at a toe portion, wherein the first thickness is greater than the second thickness.		Undisputed

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Gallas – Heel Platform Having a Substantially Uniform Height Around a Perimeter

[0021] The sole 106 may have an elevation, for example, an elevation at the front of the foot 112 and an elevation at the heel of the foot 114. The sole 106 may vary in elevation along its length from the front portion 108 to the rear portion 110. For example, the rear portion 110 may be elevated and may taper toward the front portion 108. More specifically, the rear portion 110 may have an elevation 114 which is greater than the elevation 112 of the front portion 108, for example, the rear portion 110 may have an elevation of approximately 0.50 inches to approximately 5 inches, or may have a elevation of approximately 1.0 inches to approximately 3.0 inches, or may have a elevation of approximately 1.5 inches to approximately 2.5 inches, in each case the elevation of the rear portion 110 exceeding the elevation of the front portion 108. As an example, the elevation of the rear portion 110 may exceed the elevation of the front portion 108 by about 25%. In that case, if the elevation of the front portion 108 is 0.5 inches, the elevation of the rear portion 110 may be about 0.625 inches. However, a ratio of front portion 108 to rear portion 110 may change depending on implementation. The ratio of front portion 108 to rear portion 110 may be any ratio as long as the rear portion 110 is of greater elevation than the front portion 108. The sole 106 may be continuous or may be discontinuous, for example, the front portion 108 and the rear portion 110 may be on one continuous piece or more than one piece, which pieces may be joined together or otherwise attached to the upper portion 104.



EX1020, ¶21, Figs. 2, 5

Q. So in Paragraph 21, this is describing the sole of the shoe in [Gallas], correct?

A. With respect to Figure 2, yes. Figure 2.

Q. Does it -- does it describe that the Rear Portion 110 of the shoe has an elevation of 114?

A. Yeah, the heel -- let's see. Elevation of the Heel 114, yes.

Q. Okay. And it says "an elevation," correct?

A. Yes.

Q. And then it gives specific examples of what that height might be. It lists a half an inch, an inch, inch and a half, 3-inches, others, as well, correct?

A. Yeah, up to 5-inches....

Q. For example, the Rear Portion 110 may be elevated and may taper towards the Front Portion 108. Do you see that?

A. Yes....

Q. What does the word "may" mean to you?

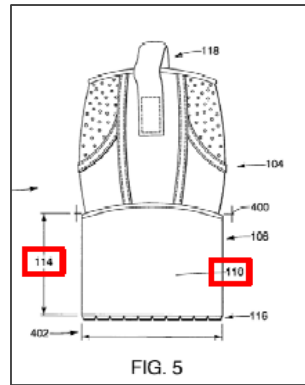
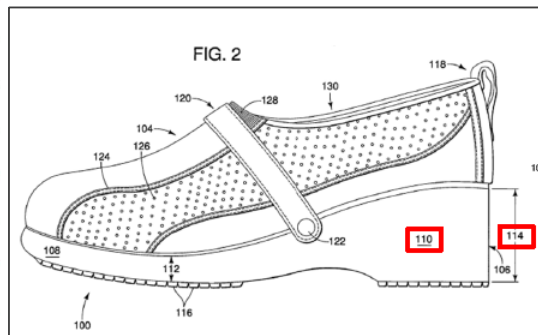
A. ... It's conditional or optional.

EX1023, 79:11-81:6

16. Gallas teaches that the "rear portion 110" of sole 106 has "an elevation," (EX1020, ¶¶21, 28, 30) which a POSITA would understand means a singular elevation throughout, and Gallas provides examples for the elevation of the rear portion 110. Gallas also teaches that the rear portion "may" taper (EX1020, ¶21) which a POSITA would understand teaches that the heel platform may not taper, but rather is flat from front to back. EX1022, pp. 13-14

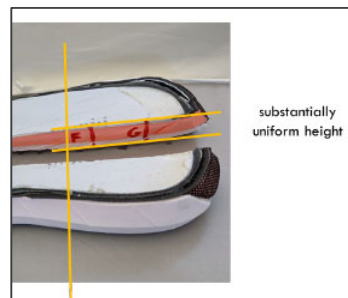
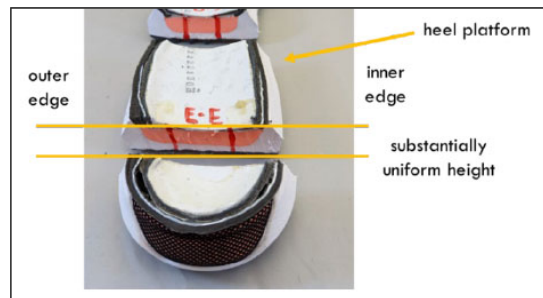
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Gallas – Heel Platform Having a Substantially Uniform Height Around a Perimeter



EX1020, Figs. 2, 5

Infringement Allegations



EX1025, pp. 578-79

Petitioner also contends that “a perimeter of the heel platform” does not need interpretation for purpose of this proceeding. Pet. 18. According to Petitioner, in related litigation, Patent Owner appears to interpret the phrase 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 includes “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.” *Id.* at 18–19 (citing Ex. 1002 ¶ 26; Ex. 1012, Ex. E, 23–24; Ex. 1021). Petitioner, therefore, applies Patent Owner’s apparent interpretation of “a perimeter of the heel platform” to the challenges of this proceeding “without conceding alternative arguments in the counterpart litigation.” *Id.* at 19.

At this stage, we find the parties’ agreed-upon construction of the “a perimeter of the heel platform” limitation to be reasonable and consistent with the intrinsic record. *Id.* Thus, we adopt it for purposes of this Decision.

IPR2024-00636, ID, Paper 8, 11

17. A POSITA would understand that the heel platform in Gallas Figures 2-3 and 5 disclose a heel platform having a first height that is “substantially uniform” around its perimeter since the heel platform has only a small degree of height change from the front to the back of the heel. A POSITA would also understand Gallas’ teaching that the “angle of the shoe slant[s] down from the back to the front” refers to the height change between the heel and the toe section, not that the heel platform itself must be slanted.

EX1022, p. 14

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Norton – ‘768 Ground 3

‘768 Patent: Claim 1	Norton
1. An athletic shoe comprises:	Undisputed
an upper section; and	Undisputed
a sole section coupled to the upper section, wherein the sole section includes:	Undisputed
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; and	
a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed of a second material having a gradient compression factor, wherein when the athletic shoe is worn by an athlete and weight of the athlete is applied to the athletic shoe, the second material compresses to a first level near an outer edge of the sole section and the second material compresses to a second level near an inner edge of the sole section, wherein the second level of compression is greater than the first level of compression,	
wherein the forefoot platform, at the outer edge, has a first thickness at a position proximal to the heel platform and a second thickness at a toe portion, wherein the first thickness is greater than the second thickness.	

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Norton – ‘456 Ground 5

‘456 Patent: Claim 1	Norton
1. An athletic shoe comprises:	Undisputed
an upper section; and	Undisputed
a sole section coupled to the upper section, wherein the sole section includes:	Undisputed
a heel platform having a first height that is substantially uniform from an inner edge of the sole section to an outer edge of the sole section , wherein the heel platform is constructed of a first material; and	
a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed of a second material having a gradient compression factor, wherein, when the athletic shoe is worn by an athlete and weight of the athlete is applied to the athlete shoe, the second material compresses to a first level near an outer edge of the sole section and the second material compresses to a second level near an inner edge of the sole section, wherein the second level of compression is greater than the first level of compression.	

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Norton – ‘456 Ground 5

‘456 Patent: Claim 10	Norton
1. An athletic shoe comprises:	Undisputed
an upper section; and	Undisputed
a sole section coupled to the upper section, wherein the sole section includes:	Undisputed
a heel platform having a first height that is substantially uniform from an inner edge of the sole section to an outer edge of the sole section , wherein the heel platform is constructed of a first material; and	
a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed to have a first level of compression proximal to the outer edge of the shoe and a second level of compression proximal to an inner edge of the shoe, wherein the second level of compression is greater than the first level of compression	Undisputed

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

EX1007

EX1007, Figs 3B, 4B

FIG. 4B

EX1007, 3:33-45

EX1007, 4:7-2

Norton – Substantially Uniform Height Heel Platform

Petitioner's Expert

In the following description, various embodiments of the methods in accordance with the invention relate to a sole element. It should, however, be noted that a sole element in accordance with the invention is typically used as part of a sole ensemble. 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.

EX1007, 5:57-65

92. 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. 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 around its perimeter.

IPR2024-00639 EX1002, ¶92

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Norton – Substantially Uniform Height Heel Platform

Giese: Confirms a POSITA’s knowledge regarding substantially uniform heel height

United States Patent [19]

Giese et al.

[11] Patent Number: 5,025,573

[43] Date of Patent: Jun. 25, 1991

[54] MULTI-DENSITY SHOE SOLE

[75] Inventors: Erik O. Giese; Roger J. Brown, both of Aspen, Colo.

[73] Assignee: Comfort Products, Inc., Aspen, Colo.

[21] Appl. No.: 871,017

[22] Filed: Jun. 4, 1986

[51] Int. Cl. A43B 13/14; A43B 13/12

[52] U.S. Cl. 36/30 R; 36/31; 36/28

[53] Field of Search 36/30 R, 31, 28, 32 R, 36/23 R, 103, 92, 82, 107, 108, 76 R, 76 C, 22 A, 11.5

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Primary Examiner—Steven N. Meyers

Attorney, Agent, or Firm—Penske & Edmonds

[57] ABSTRACT

A composite shoe bottom is disclosed comprising a lower layer of firm material and an upper softer layer superposed thereon. Each layer has an upper contoured surface such that the total compressibility of the shoe bottom, as determined by the relative thicknesses of the layers, is predetermined and differs along the surface. The upper layer has an uppermost surface which is shaped to fit against and be complementary to the bottom of the foot of a wearer.

40 Claims, 30 Drawing Sheets

EX1010

Historically, shoe bottoms have consisted primarily of flat surfaces on both their top and bottom. These bottoms were normally made of single density polyurethane (PU) or blown polyvinylchloride (PVC) type material. The upper of the shoe would be glued onto the top of the sole or the upper could be “direct attached” through a molding process which would capture the upper in the molded sole. The bottom could be the lowermost layer of the sole if the urethane was sufficiently abrasion resistant, or alternatively a rubber outsole would be cemented onto the unit bottom, as is typically done in running shoes.

Eventually, it became known to contour the top surface of the unit bottom to provide a heel cup and slight arch. This made the shoe more comfortable because the foot would rest on a surface similar to its shape as opposed to a flat surface which felt like flat feet on a firm floor.

EX1010, 1:10-27

FIG. 36

FIG. 35

FIG. 39
Substantially Uniform Height

outer edge

inner edge

heel platform

substantially uniform height

IPR2024-00639 Reply, 16

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE IPR2024-00639 Reply, 15-17

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Norton – Forefoot Platform Constructed of a Second Material

In the following description, various embodiments of the methods in accordance with the invention relate to a sole element. It should, however, be noted that a sole element in accordance with the invention is typically used as part of a sole ensemble. 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.

EX1007, 5:57-65

The Board

article of footwear. Pet. 38; Ex. 1006, code (57), 4:59–62. 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.

Patent Owner’s Expert & Inventor

Q. So, in this what you’re talking what-if Embodiment 2, this is suggesting that the heel and the forefoot are made of the same material, but the forefoot has a variable compression design, we’ll call it; is that accurate?

A. Yes....

Q. So in this scenario, do you agree that the forefoot is different in some manner than the heel because of the compression difference? ...

A. Yeah, so, I mean, what I say in the figure is the cross-section of the heel and the forefoot still include the same material, 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.

Q. So do you believe that the forefoot is different in some way than the heel?

A. Yeah ...

EX1023, 48:10-50:14

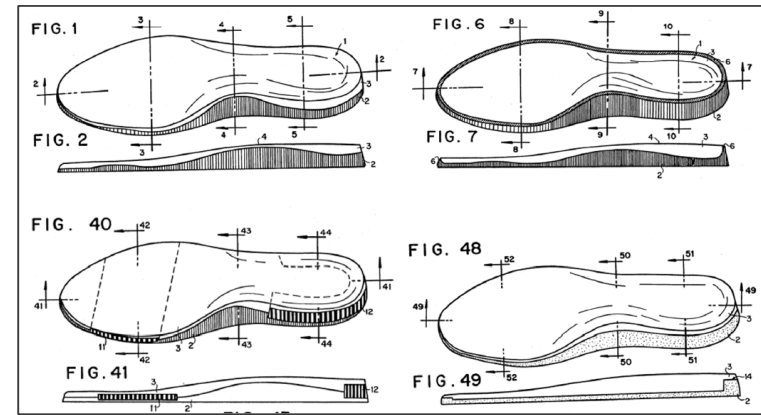
Norton – Forefoot Platform Outer Edge Thicker Near Heel than Toe

Petitioner's Expert

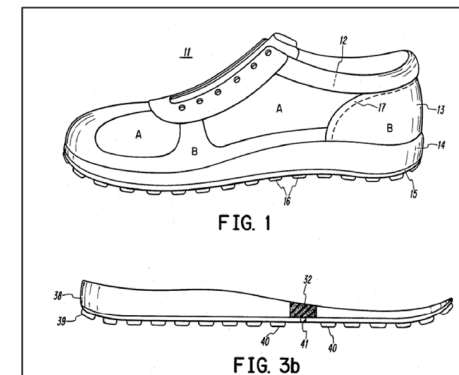
98. Norton teaches and/or suggests a forefoot platform wherein, at the outer edge, the thickness at a position proximal to the heel platform is greater than the thickness at the toe portion. This limitation describes a shoe that includes a sole that is thicker at a position proximal to the front edge of the heel platform than at the toe portion. This sole design is common in almost all shoes, and has been a conventional design feature in athletic shoes long before the '768 patent's priority date as it places the foot in a more natural position and is more comfortable for running, walking,

and sports-related activities. A POSITA would understand that Norton's disclosure that the inventive sole element may only be used in parts of the forefoot (Ex. 1007, 5:65-67) would teach and/or suggest to a POSITA that the remainder of the sole is of a conventional design, including being thicker at a position proximal to the front edge of the heel platform than at the toe portion.

EX1002, ¶ 98



EX1010



EX1009

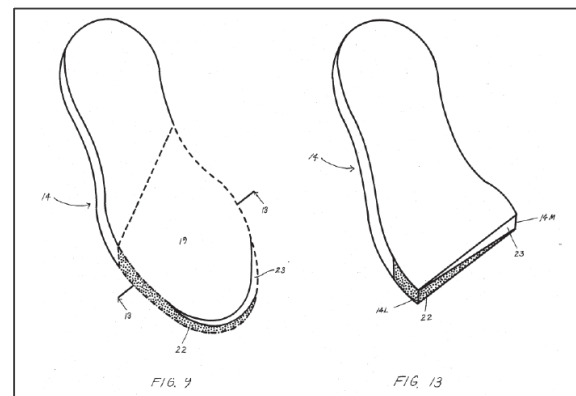
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Norton – Claim 5

Petitioner's Expert

foam. It would have been obvious to use one or a plurality of materials to achieve the benefits of the gradient compression factor, as disclosed in both Norton and in Talarico '911, incorporated by reference in Norton. A person of ordinary skill in the art would have known that it could have chosen one or several materials for obtaining the increasing compression gradient across the forefoot platform, for example, by meshing varying amounts of two materials across the width of the platform. This amounts to one of a limited number of design choices for obtaining the benefits of the gradient compression recognized in the prior art. This is especially true based on Norton's incorporation by reference of Talarico '911, which expressly discloses the use of two materials to provide a gradient compression factor, as described below. In view of these disclosures, it would have been obvious to use one or a plurality of materials to achieve the benefits of gradient compression.

Ex. 1002, ¶105



Ex. 1008, Figs. 9,13

In various embodiments of the foregoing aspects, the method includes the step of supplying heat during the press-forming. Density can increase gradually from a lateral side of the sole element to a medial side of the sole element or density can decrease gradually from a lateral side of the sole element to a medial side of the sole element. Alternatively or additionally, density of the sole element can vary from a rear foot part of the sole element to a forefoot part of the sole element. In one embodiment, the step of manufacturing the sole element preform includes the step of manufacturing the preform with a thickness decreasing linearly or non-linearly from a medial side of the preform to a lateral side of the preform. Sole elements manufactured by such a method can be adapted to different sports and to the different anatomy of a respective wearer.

EX1007, 4:7-2

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

IPR2024-00640 Pet., 29

Won – ‘456 Ground 1

‘456 Patent: Claim 10	Won
1. An athletic shoe comprises:	Undisputed
an upper section; and	Undisputed
a sole section coupled to the upper section, wherein the sole section includes:	Undisputed
a heel platform having a first height that is substantially uniform from an inner edge of the sole section to an outer edge of the sole section , wherein the heel platform is constructed of a first material; and	
a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed to have a first level of compression proximal to the outer edge of the shoe and a second level of compression proximal to an inner edge of the shoe, wherein the second level of compression is greater than the first level of compression	

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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EX1005, 2:60-67

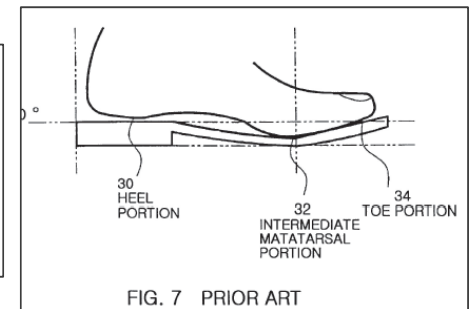
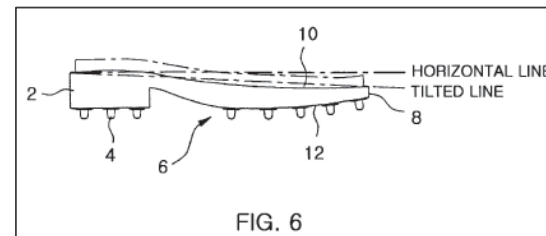
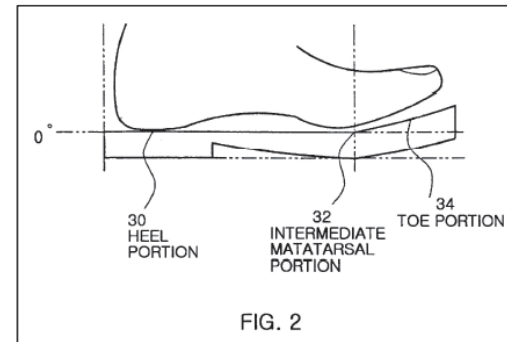
EX1005, 4:46-57

Won - Substantially Uniform Height Heel Platform

The Board

description of the figures. *See* Pet. 22–24. More specifically, as Under Armour correctly notes, one skilled in the art would have understood that the heel platform depicted in many of Won’s figures is the same as that found in “conventional” golf shoes. *Id.* at 24 (citing Ex. 1002 ¶¶ 55–61, 66). Indeed, Won expressly discloses that its Figures 6 and 7 illustrate “the sole of a conventional golf shoe[.]” Ex. 1005, 1:42–62. And the conventional heel

platform shown in Won’s Figures 6 and 7 appears to be no different than the heel platform shown in Won’s Figures 2 and 5, which concern only changes to the intermediate metatarsal and toe portions of the shoe but not the heel portion. *Compare* Ex. 1005, Figs. 6 and 7 with *id.*, Figs. 2 and 5; *see also* Prelim. Resp. 47 (acknowledging that “Won is only concerned with the forefoot material”). Thus, reading Won as a whole, one skilled in the art would clearly recognize that, while the angle and elasticity of the metatarsal and toe portions of the shoe are modified to promote balance and stability during the swing, the heel portion is “flat (0°)” and of uniform thickness as is the “standard” with conventional golf shoes. Ex. 1002 ¶¶ 55–61, 65–67; Ex. 1005, 5:28–29, 6:20–33.



IPR2024-00640 ID, Paper 8, 9-10

EX1005, Figs. 2, 6, 7

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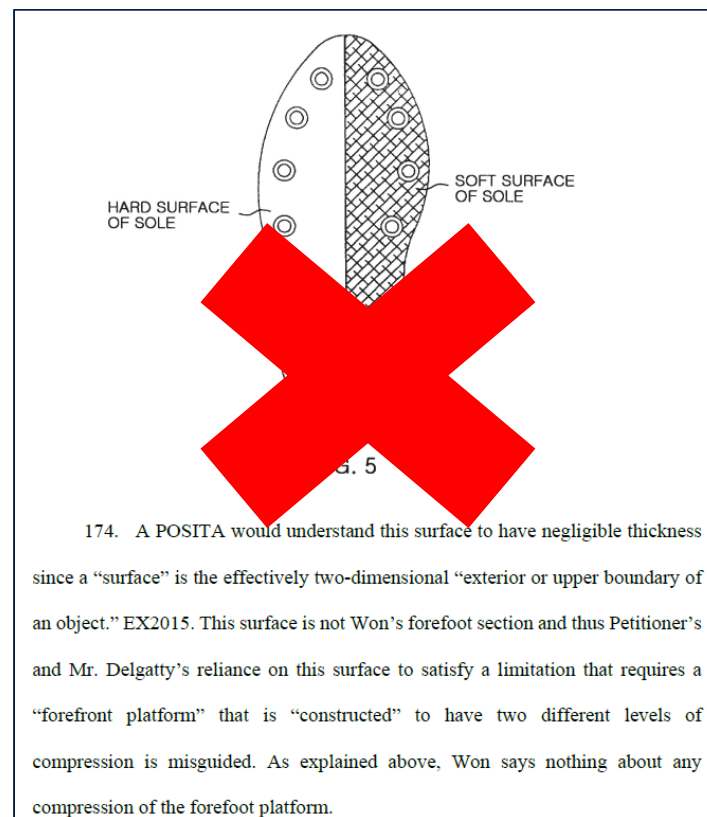
IPR2024-00640 Reply, 10-11

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Won – Forefoot Platform that is More Compressible Proximal to the Inner Edge than the Outer Edge

Patent Owner's Expert & Inventor

- Patent Owner's suggestions that:
 - 1) Won fails to disclose a forefoot platform;
 - 2) Won's forefoot materials have "no appreciable thickness;" and
 - 3) Won "says nothing about any compression" are **wrong**.



174. 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." EX2015. This surface is not Won's forefoot section and thus Petitioner's and Mr. Delgatty's reliance on this surface to satisfy a limitation that requires a "forefront platform" that is "constructed" to have two different levels of compression is misguided. As explained above, Won says nothing about any compression of the forefoot platform.

EX2009, p. 76

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Won – Forefoot Platform that is More Compressible Proximal to the Inner Edge than the Outer Edge

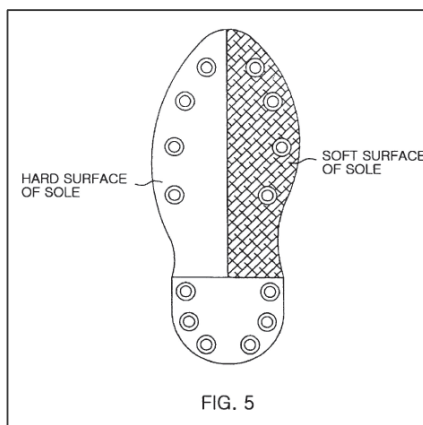
Patent Owner's Expert & Inventor

FIG. 5 is a plan view showing the sole or mid sole of the golf shoes according to the present invention.

EX1005, 3:13-14

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 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, 4:46-57



EX1005, Fig. 5

Q. So that reference to midsole in Line 49, what is that referring to?

A. It's referring to the longitudinal axis of the sole or midsole.

Q. So if the midsole was made of one material, what would that longitudinal axis be?

A. That's what they show in Figure 5.

Q. So it looks like that longitudinal axis --

A. Like this (indicating).

Q. Yeah, right. And he's referring to that separation between the hard surface and the soft surface, correct?

A. Yes.

Q. And in Column 4, it states that that longitudinal axis can be part of the sole or midsole, correct?

A. Yes.

EX1023, 21:2-19

Q. So you mentioned no appreciable thickness. Is there anywhere in [Won] that states that the surface has no appreciable thickness?

A. No specific statement.

EX1023, 22:19-22

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Won – Forefoot Platform that is More Compressible Proximal to the Inner Edge than the Outer Edge

Petitioner's Expert

11. Mr. Markison's suggestion that the "surface" described in Won has "negligible thickness" (EX2009, ¶174) is unsupported. Nowhere in Won does it suggest that. Rather, Won teaches that the dual-compression forefoot platform can include a longitudinal axis dividing the two elastic materials in either the sole or the midsole. EX1005, 3:14-15.

12. A POSITA would understand that the midsole embodiment would have different compression materials be included in between the insole and the outsole, thus providing for the compression differential and tilting of the shoes and bending inward of the player's legs described in the spec and claims.

13. Regardless of whether Won's entire sole, the midsole or the outsole have the differing materials, Won also teaches that the inside portion of the forefoot region would compress when worn by a golfer.

14. When Won states that the spikes on the inside part of the shoe are "pressed down," a POSITA would understand that to mean the spikes are pressed into the compressible sole material, whereas the spikes on the outside part of the forefoot "remain in the same position." EX1005, 4:46-58.

wherein the sole of said toe portion and said intermediate metatarsal portion excluding said heel portion is divided at a centerline in the longitudinal direction forming an outside sole surface of a first material and an inside sole surface of a second softer and more elastic material, wherein the second material on the inside sole surface of the golf shoes facilitates bending inward the player's legs to attain stability at address and swing.

EX1005, claim 1

VENABLE LLP

EX1022, ¶¶11-14

Won + Norton – ‘768 Ground 4

‘768 Patent: Claim 1	Won + Norton
1. An athletic shoe comprises:	Undisputed
an upper section; and	Undisputed
a sole section coupled to the upper section, wherein the sole section includes:	Undisputed
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; and	 (see ‘456 Ground 1)
a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed of a second material having a gradient compression factor, wherein when the athletic shoe is worn by an athlete and weight of the athlete is applied to the athletic shoe, the second material compresses to a first level near an outer edge of the sole section and the second material compresses to a second level near an inner edge of the sole section, wherein the second level of compression is greater than the first level of compression,	
wherein the forefoot platform, at the outer edge, has a first thickness at a position proximal to the heel platform and a second thickness at a toe portion, wherein the first thickness is greater than the second thickness.	

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Won + Norton – ‘456 Ground 2

‘456 Patent: Claim 1	Won + Norton
1. An athletic shoe comprises:	Undisputed
an upper section; and	Undisputed
a sole section coupled to the upper section, wherein the sole section includes:	Undisputed
a heel platform having a first height that is substantially uniform from an inner edge of the sole section to an outer edge of the sole section , wherein the heel platform is constructed of a first material; and	 (see ‘456 Ground 1)
a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed of a second material having a gradient compression factor, wherein, when the athletic shoe is worn by an athlete and weight of the athlete is applied to the athlete shoe, the second material compresses to a first level near an outer edge of the sole section and the second material compresses to a second level near an inner edge of the sole section, wherein the second level of compression is greater than the first level of compression.	

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Won + Norton – ‘456 Ground 2

‘456 Patent: Claim 10	Won + Norton
1. An athletic shoe comprises:	Undisputed
an upper section; and	Undisputed
a sole section coupled to the upper section, wherein the sole section includes:	Undisputed
a heel platform having a first height that is substantially uniform from an inner edge of the sole section to an outer edge of the sole section , wherein the heel platform is constructed of a first material; and	 (see ‘456 Ground 1)
a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed to have a first level of compression proximal to the outer edge of the shoe and a second level of compression proximal to an inner edge of the shoe, wherein the second level of compression is greater than the first level of compression	Undisputed

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Won + Norton - Forefoot Platform Constructed of a Second Material

The Board

article of footwear. Pet. 38; Ex. 1006, code (57), 4:59–62. 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

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Petitioner's reliance on the description in Won of the soft surface on the inside of its sole sufficiently shows a forefoot platform made of a material different from its heel. Pet. 56–57; Ex. 1002 § IX.D.e.; Ex. 1005, 4:46–58, Fig. 5. Figure 5 appears to show that Won's heel and soft surface are made of materials different in some manner, such as softness.

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the proposed combination would have had different materials for Norton's sole element that Petitioner proposes to use in Won's forefoot and the "conventional" heel disclosed in Won. See Pet. 55, 56–58. The parties

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Petitioner's Expert

38. It would have been obvious to a POSITA to replace the forefoot platform of Won, or some element thereof (including either the outsole or midsole), with the varying compression sole element of Norton. Indeed, this is precisely the type of combination that Norton suggests. E.g., EX1007 Abstract (describing a “sole element for shoes, in particular sports shoes”); 5:56-67 (describing the embodiments of the invention as a “sole element” that is typically “part of a sole ensemble;” it may be a midsole and may or may not be over the entire longitudinal direction of the sole). In this combination, a POSITA would recognize that the heel would include the “hard surfaced elastic material” of Won, and the forefoot would include the varied compression sole element of Norton made of EVA or PU. EX1007, 6:56-60.

EX1022, ¶38

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Won + Norton – Expected Success

Petitioner's Expert

39. A POSITA would know how to incorporate the variably-compressible insole, midsole or outsole disclosed in Norton with the sole or midsole taught in Won, and expect success in doing so, based on the teachings of those references and the knowledge of a POSITA. Indeed, many shoe designs used a harder material in the heel platform than the forefoot. The design of athletic shoe soles is highly predictable and typically includes three common components: an outsole, a midsole and an insole. Combining different designs of any one of these components (including changes in size, shape or material), with the other components, and ensuring that all of the components of the sole work well together, is commonplace during the shoe design process. A POSITA is easily capable of making any necessary modifications to the shoe or any of its individual sole components to implement this Ground.

EX1022, ¶39

40. Alternatively, A POSITA would recognize that the entire midsole or sole of Won could be replaced with the sole element of Norton. In this combination wherein the heel portion of the sole element is made of the same material as the forefoot but lacks the compression gradient, it would meet the Board's proposal suggesting that the first and second materials be "different in some manner." Paper 8, 13.

EX1022, ¶40

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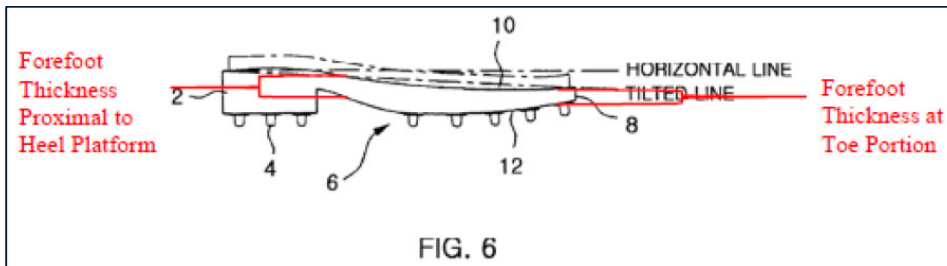
DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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Won + Norton – Forefoot Platform Outer Edge Thicker Near Heel than Toe

Petitioner's Expert



IPR2024-00639, Pet. 59

(8). The bottom surface of the heel portion and the bottom surface (12) of the toe portion (8) are almost in parallel or the bottom surface (12) of the toe portion (8) is formed to be a little bit lower than the bottom surface of the heel portion (2).

As shown in FIG. 6, it is known that the upper surface of an intermediate metatarsal portion (10) of the toe portion of the sole is formed to be lower than that of the heel portion.

EX1005, 1:46-53

124. This limitation describes a shoe that includes a sole that is thicker at a position proximal to the front edge of the heel platform than at the toe portion. This sole design is common in almost all shoes, and has been a conventional design feature in athletic shoes, including in golf shoes, long before the '768 patent's priority date as it places the foot in a more natural position and is more comfortable for running, walking, and sports-related activities. A POSITA would understand

that Won's disclosure that Figures 6 and 7 depict a "conventional" golf shoe, would also 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.

125. To the extent it is not clear that the embodiment disclosed in Figure 5 has a "conventional" forefoot platform like that claimed, a POSITA would have recognized that the conventional forefoot platform, as depicted in Figures 6 and 7, could be used in this embodiment without altering the reminder of the shoe's, design.

EX1002, ¶¶124-25

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Won + Talarico '911 – '768 Ground 5

'768 Patent: Claim 1	Won + Talarico
1. An athletic shoe comprises:	Undisputed
an upper section; and	Undisputed
a sole section coupled to the upper section, wherein the sole section includes:	Undisputed
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; and	 (see '456 Ground 1)
a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed of a second material having a gradient compression factor, wherein when the athletic shoe is worn by an athlete and weight of the athlete is applied to the athletic shoe, the second material compresses to a first level near an outer edge of the sole section and the second material compresses to a second level near an inner edge of the sole section, wherein the second level of compression is greater than the first level of compression,	
wherein the forefoot platform, at the outer edge, has a first thickness at a position proximal to the heel platform and a second thickness at a toe portion, wherein the first thickness is greater than the second thickness.	 (see '768 Ground 4)

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Won + Talarico '911 – '456 Ground 3

'456 Patent: Claim 1	Won + Talarico
1. An athletic shoe comprises:	Undisputed
an upper section; and	Undisputed
a sole section coupled to the upper section, wherein the sole section includes:	Undisputed
a heel platform having a first height that is substantially uniform from an inner edge of the sole section to an outer edge of the sole section , wherein the heel platform is constructed of a first material; and	 (see '456 Ground 1)
a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed of a second material having a gradient compression factor, wherein, when the athletic shoe is worn by an athlete and weight of the athlete is applied to the athlete shoe, the second material compresses to a first level near an outer edge of the sole section and the second material compresses to a second level near an inner edge of the sole section, wherein the second level of compression is greater than the first level of compression.	

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Won + Talarico '911 – '456 Ground 3

'456 Patent: Claim 10	Won + Talarico
1. An athletic shoe comprises:	Undisputed
an upper section; and	Undisputed
a sole section coupled to the upper section, wherein the sole section includes:	Undisputed
a heel platform having a first height that is substantially uniform from an inner edge of the sole section to an outer edge of the sole section , wherein the heel platform is constructed of a first material; and	 (see '456 Ground 1)
a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed to have a first level of compression proximal to the outer edge of the shoe and a second level of compression proximal to an inner edge of the shoe, wherein the second level of compression is greater than the first level of compression	Undisputed

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Prior Art Reference Talarico '911

United States Patent [19]

Talarico, II

[11] Patent Number: 4,642,911

[45] Date of Patent: Feb. 17, 1987

[54] DUAL-COMPRESSION FOREFOOT COMPENSATED FOOTWEAR

[76] Inventor: Louis C. Talarico, II, 116 Wood St., P.O. Box 180, Lewiston, Me. 04240

[22] Filed: Feb. 28, 1985

[21] Int. Cl.⁴: A60 13/12

[51] U.S. Cl.: 36/29, 36/29 B, 36/29 C, 36/44, 36/51, 36/52, 36/53, 36/54

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Primary Examiner—Henry S. Jordon

Assistant Examiner—T. Graveline

Attorney, Agent or Firm—Cantor, Kravitz, Bernstein, Cohen & Paskowitz, Ltd.

[57] ABSTRACT

An article of footwear is provided. The article includes

a sole which has forefoot and rearfoot portions. The sole forefoot portion has both a medial and a lateral aspect. The sole forefoot portion is comprised of different compressibilities of materials selected and arranged across the width thereof such that the sole effectively slopes at an angle upwardly from the lateral aspect to the medial aspect when weight-bearing forces are exerted on the forefoot and thereby providing an effective inclined surface of resultant thickness greater at the medial aspect of the forefoot than at the lateral aspect as a result of less compressible material at the medial aspect of the forefoot than at the lateral aspect when the sole of said article of footwear is intended for use by individuals whose feet have a tendency toward compensation in a pronated direction due to their inherent inverted forefoot versus foot type.

Consensually, whereby the sole forefoot portion is comprised of different compressibilities of materials selected and arranged across the width thereof such that the sole effectively slopes at an angle upwardly from the medial aspect to the lateral aspect when weight-bearing forces are exerted on the forefoot and thereby providing an effective inclined surface of resultant thickness greater at the lateral aspect of the forefoot than at the medial aspect as a result of less compressible material at the lateral aspect of the forefoot than at the medial aspect when the sole of said article of footwear is intended for use by individuals whose feet have a tendency toward compensation in a supinated direction due to their inherent overvalgus foot type.

EX1008

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the material used on the lateral half of the forefoot. In a medial and lateral half dual-density forefoot valgus compensation, the material employed on the lateral half of the forefoot is denser than the material used on the medial half of the forefoot.

EX1008, Figs. 9, 11, 13, 15, 11:64-68
IPR2024-0039 Pet., 15-16

The 45 degree split dual-density methods are generally preferred to the medial and lateral half dual-density methods because of a more even and gradual alteration of the weight-bearing gravitational forces as they are delivered and directed across the forefoot section of the footwear during the midstance and propulsive phases of gait.

EX1008, 12:41-47

For example, a sole of a shoe of a particular size, width, and style may incorporate a midsole material that is $\frac{3}{8}$ of an inch in thickness overall. Fifty plus or

EX1008, 12:1-3

1. In an article of footwear for use with a foot, said article having a sole, said sole having a forefoot and a rearfoot portion, said sole forefoot portion having a medial aspect and a lateral aspect, said sole forefoot portion being comprised of materials having differing compressibilities of materials selected and arranged across the width thereof such that said sole forefoot portion effectively slopes at an angle upwardly from said lateral aspect to said medial aspect when compression forces are exerted on the forefoot to provide an effective inclined surface of resultant thickness greater at said medial aspect of the forefoot than at said lateral aspect as a result of less compressible material being incorporated at said medial aspect of the forefoot than at said lateral aspect to compensate said forefoot in its naturally inverted angulation and to maintain the natural alignment, position, motion, and function of the entire foot during use of said article of footwear, and wherein said rearfoot portion is of constant thickness across the width thereof.

EX1008, claim 1

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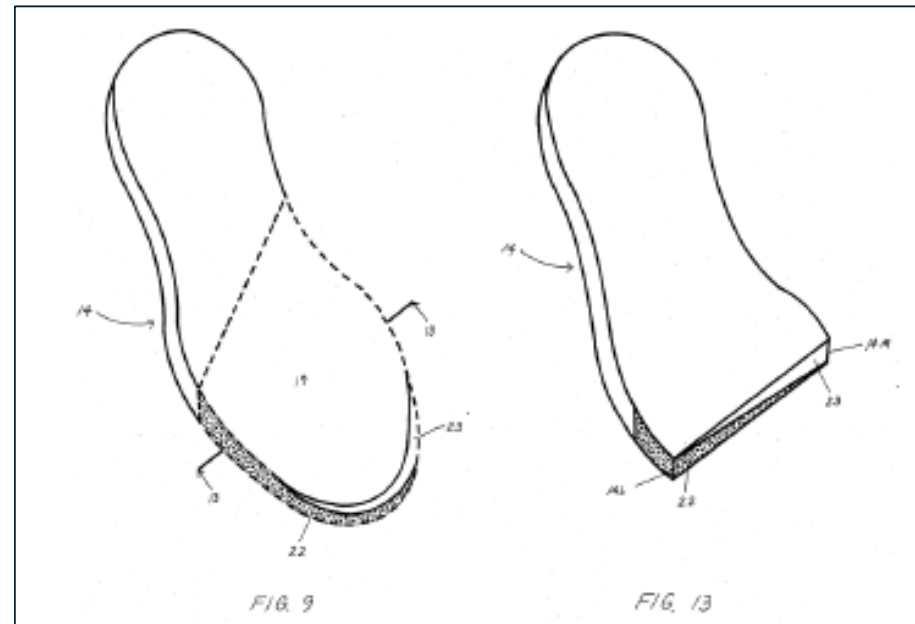
Won + Talarico - Forefoot Platform Constructed of a Second Material

surface environment. The present invention is intended for any and all footwear wherein dual-density or dual-compressibility materials or combinations of different materials may be incorporated into either the midsole, outersole, or innersole construction of the footwear in order to accommodate the forefoot in its natural position. As used herein, “dual-density” shall be understood

EX1008, 1:11-17

toes. When applying a 45 degree split dual-density forefoot valgus compensation the area of the denser accommodative material effectively slopes upward and toward the lateral aspect of the footwear in all directions from its vertex at the area beneath the medial aspect of the navicular bone. It then radiates from proximally to distally from this vertex and at a 45 degree angle to encompass the following areas of the forefoot: (1) the area beneath the internal (medial) cuneiform and base of the first metatarsal bones; (2) the area diagonal to the longitudinal and transverse arches of the foot and shafts of the metatarsal bones; (3) the areas beneath the five metatarsalphalangeal joints (the ball of the foot) and; (4) the area beneath all of the toes.

EX1008, 11:42-55



EX1008, Figs. 9, 13

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Won + Talarico - Forefoot Platform Constructed of a Second Material

Petitioner's Expert

45. It would have been obvious to a POSITA to replace the forefoot platform of Won, or some portion thereof, including either the outsole or the midsole, with the midsole or outsole having variable compression taught in Talarico '911. In this combination, a POSITA would recognize that the heel would include the "hard surfaced elastic material" of Won, and the forefoot would include the sole element of Talarico '911 made of differing compression EVA. EX1008, 12:1-9.

46. Alternatively, A POSITA would recognize that the entire midsole of Won could be replaced with Talarico '911's midsole made of differing compression EVA in the forefoot, and a single material in heel.

EX1022, ¶¶45-46

The Board

Similar to the challenge based on Won and Norton, Petitioner sufficiently argues that Won teaches the recited forefoot platform made of a second material. Pet. 66. Petitioner also, at this stage, presents adequate reasons with citations to the record that the ordinarily skilled artisan would have combined Won and Talarico '911 for the benefits described in Talarico '911. See Pet. 63, 68. We understand Petitioner to be arguing that the proposed combination would have resulted in materials different in some manner for the forefoot and heel, as shown, for example, in Figure 5 of Won.

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Talarico '911 – '456 Ground 6

'456 Patent: Claim 1	Talarico
1. An athletic shoe comprises:	Undisputed
an upper section; and	Undisputed
a sole section coupled to the upper section, wherein the sole section includes:	Undisputed
a heel platform having a first height that is substantially uniform from an inner edge of the sole section to an outer edge of the sole section , wherein the heel platform is constructed of a first material; and	 (see '456 Ground 3)
a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed of a second material having a gradient compression factor, wherein, when the athletic shoe is worn by an athlete and weight of the athlete is applied to the athlete shoe, the second material compresses to a first level near an outer edge of the sole section and the second material compresses to a second level near an inner edge of the sole section, wherein the second level of compression is greater than the first level of compression.	 (see '456 Ground 3)

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Talarico '911 – '456 Ground 6

'456 Patent: Claim 10	Talarico
1. An athletic shoe comprises:	Undisputed
an upper section; and	Undisputed
a sole section coupled to the upper section, wherein the sole section includes:	Undisputed
a heel platform having a first height that is substantially uniform from an inner edge of the sole section to an outer edge of the sole section , wherein the heel platform is constructed of a first material; and	 (see '456 Ground 3)
a forefoot platform juxtaposed to the heel platform, wherein the forefoot platform is constructed to have a first level of compression proximal to the outer edge of the shoe and a second level of compression proximal to an inner edge of the shoe, wherein the second level of compression is greater than the first level of compression	Undisputed

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Secondary Considerations

- *Long-Felt, Unmet Need* – Athalonz failed to show a persistent need recognized by a POSITA, why the cited prior art in the grounds above did not meet such a need, nor evidence of how the alleged invention did.
- *Copying* - Athalonz failed to include any technical analysis of Petitioner's products, or any evidence that Petitioner's shoes practice the asserted patents or have a similar design as Athalonz's products.

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IPR2024-0039 Reply, 25-26

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