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UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION

BRAINGUARD TECHNOLOGIES, INC., Plaintiff, v. VISTA OUTDOOR INC.; VISTA OUTDOOR OPERATIONS LLC; REVELYST SALES LLC; and STRATEGIC VALUE PARTNERS, LLC, Defendants.	Case No.: 8:24-cv-2652 **COMPLAINT FOR PATENT INFRINGEMENT** **JURY TRIAL DEMANDED**

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Plaintiff BrainGuard Technologies, Inc. ("BrainGuard") files this Complaint against Defendants Vista Outdoor Inc., Vista Outdoor Operations LLC (collectively, "Vista"), Revelyst Sales LLC ("Revelyst"), and Strategic Value Partners, LLC ("SVP") (together, "Defendants").

NATURE OF THE CASE

1. This is an action for the infringement of five United States Patents: (1) United States Patent No. 8,863,319 ("the '319 Patent"), (2) United States Patent No. 9,060,561 ("the '561 Patent"), (3) United States Patent No. 9,271,536 ("the '536 Patent"), (4) United States Patent No. 9,414,635 ("the '635 Patent"), and (5) United States Patent No. 9,516,909 ("the '909 Patent"), collectively referred to as the "Asserted Patents."

2. Defendants have been infringing the Asserted Patents in violation of 35 U.S.C. § 271 by making, using, offering to sell, selling, and/or importing its various lines of cycling, motor sports, and snow sports safety equipment based on Multi-directional Impact Protection System (MIPS) technology, including but not limited to at least the following products: the Bell[1] Spherical line of cycling and motor sports helmets (the "Bell Spherical Helmets"), the Bell MIPS Evolve line of cycling and motor sports helmets (the "Bell MIPS Helmets"), the Giro[2] Spherical line of cycling and snow sports helmets (the "Giro Spherical Helmets"), the Giro MIPS line of cycling and snow sports helmets (the "Giro MIPS Helmets"), the Fox[3] MIPS line of cycling and motor sports helmets (the "Fox MIPS Helmets"), and similar products (collectively, the "Accused Instrumentalities"), and by placing such products into the stream of commerce with the expectation that they will be purchased and/or used by third party resellers and/or by end consumers in this District.

[1] "Bell" refers to Bell Helmets. *See*, *e.g.*, https://www.revelyst.com/brands/bell.html (last visited November 26, 2024).
[2] "Giro" refers to Giro Sport Design. *See*, *e.g.*, https://www.revelyst.com/brands/giro.html (last visited November 26, 2024).
[3] "Fox" refers to Fox Racing. *See*, *e.g.*, https://www.revelyst.com/brands/fox-racing.html (last visited November 26, 2024).

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3. On information and belief, the Bell Spherical Helmets include at least the following motor sports and cycling helmet models: Moto-10 Spherical; Full-10 Spherical; XR Spherical; Super DH Spherical; Super Air R Spherical; Super Air Spherical; and other Bell helmets incorporating Spherical or similar technology regarding the features identified herein. [4]

4. On information and belief, the Bell MIPS Helmets include at least the following models of motor sports and cycling helmets: Lithium MIPS; MX-9 MIPS; MX-9 Adventure MIPS; Qualifier DLX MIPS; Moto-9 Youth MIPS; Moto-9 MIPS; Stratus MIPS; Stratus Ghost MIPS; Falcon XR MIPS; Falcon XR LED MIPS; Falcon XRV MIPS; Falcon XRV LED MIPS; Sixer MIPS; 4Forty Air MIPS; 4Forty MIPS; Drifter MIPS; Z20 MIPS; Trace MIPS; Nomad Jr. MIPS; Avenue MIPS; Formula MIPS; Spark 2 MIPS; Nomad 2 MIPS; Daily LED MIPS; and other Bell helmets incorporating MIPS Evolve or similar technology regarding the features identified herein.[5]

5. On information and belief, the Giro Spherical Helmets include at least the following models of cycling and snow sports helmets: Eclipse Spherical; Coalition Spherical; Aries Spherical; Insurgent Spherical; Helios Spherical; Manifest Spherical; Aether Spherical; Women's Merit Spherical; Merit Spherical; Owen Spherical; Tor Spherical; Tenaya Spherical; Grid Spherical; Envi Spherical; Orbit Spherical; Signes Spherical; Emerge Spherical; Aria Spherical; and other Giro helmets incorporating Spherical or similar technology regarding the features identified herein. [6]

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[4] *See*, *e.g.*, https://www.bellhelmets.com/technology/spherical.html (last visited November 26, 2024).

[5] *See*, *e.g.*, https://www.bellhelmets.com/bike/c/all-bike-helmets/ (last visited November 26, 2024); https://www.bellhelmets.com/motorcycle/c/all-motorcycle-helmets/ (last visited November 26, 2024); https://www.bellhelmets.com/technology/mips.html (last visited November 26, 2024).

[6] *See*, *e.g.*, https://www.giro.com/c/bike-helmets/ (last visited November 26, 2024); https://www.giro.com/c/ski-and-snowboard-helmets/ (last visited November 26, 2024).

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6. On information and belief, the Giro MIPS Helmets include at least the following models of cycling and snow sports helmets: Cielo Mips, Fixture Mips II, Syntax Mips, Agilis Mips, Montaro Mips II, Escape Mips, Caden Mips II, Register Mips II, Isode Mips II, Register Mips II XL, Register Mips II LED, Monataro Mips, Fixture Mips II XL, Ethos Mips Shield, Ethos Mips, Evoke Mips, Rapid Mips, Synthe Mips, Source Mips, Artex Mips, Switchblade Mips, Camden Mips, Vanquish Mips, Caden Mips, Quarter Mips, Disciple Mips, Register Mips, Cinder Mips, Cormick Mips, Sutton Mips, Cormick Mips XL, Bexley Mips, Aerohead Mips, Taggert Mips, Tenet Mips, Jackson Mips, Terra Mips, Ledge Mips, Trig Mips, Range Mips, Stellar Mips, Neo Mips, Vue Mips, Vue Mips VIVID, Ledge SL Mips, Ledge FS Mips, Spur Mips, Avera Mips, Crue Mips, Ceva Mips, Union Mips, Essence Mips, Essence Mips VIVID, Ratio Mips, Ledge Mips Asian Fit, Zone Mips, New Mips Asian Fit, Essence Mips, Avera Mips Asian Fit, Buzz Mips, Strive Mips, and other Giro helmets incorporating MIPS or similar technology regarding the features identified herein.[7]

7. On information and belief, the Fox MIPS Helmets include at least the following models of cycling and motor sports helmets: Proframe RS, V3 RS, Rampage, Dropframe, Speedframe, Crossframe, Mainframe, Proframe, and other Fox helmets incorporating MIPS or similar technology regarding the features identified herein. [8]

8. Plaintiff BrainGuard seeks appropriate damages and prejudgment and post-judgment interest for Defendants' infringement of the Asserted Patents.

[7] *See*, *e.g.*, https://www.giro.com/c/bike-helmets/ (last visited November 26, 2024); https://www.giro.com/c/ski-and-snowboard-helmets/ (last visited November 26, 2024).
[8] *See*, *e.g.*, https://www.foxracing.com/helmets/moto/ (last visited November 26, 2024); https://www.foxracing.com/helmets/mtb/ (last visited November 26, 2024).

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THE PARTIES

9. Plaintiff BrainGuard is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 1395 Rifle Range Road El Cerrito, CA, 94530. Founded in 2011 by Drs. Robert Knight, a UC Berkeley faculty member and neurologist, and Ram Gurumoorthy, a UC Berkeley Ph.D. engineer, BrainGuard set out on a mission to improve helmet technology and diminish the effects of rotational force—a major contributor to long-term neurological disability—during cranial impacts. BrainGuard has since established a research facility, developed its own testing equipment, and created its own patented rotational force mitigation technology.

10. On information and belief, defendant Vista Outdoor Inc. is a corporation organized under the laws of the State of Delaware, with its corporate headquarters at 1 Vista Way, Anoka, Minnesota 55303. On further information and belief, Vista Outdoor Inc. is registered to do business in California. According to its website, "Vista Outdoor is the parent company of more than three dozen renown brands that design, manufacture and market sporting and outdoor products."[9] On further information and belief, Vista Outdoor Inc.'s sports safety equipment brands (which includes cycling, motor sports, and snow sports helmets) are managed by its wholly-owned Revelyst Adventure Sports business unit.[10] On further information and belief, Vista's "Bell brand is #1 in cycling helmets" and its "Giro brand is … #2 in snow helmets."[11] On further information and belief, "Fox Racing

[9] https://vistaoutdoor.com/about/ (last visited November 26, 2024).
[10] *See*, *e.g.*, Vista Outdoor 2024 Annual Report, https://s29.q4cdn.com/177147254/files/doc_financials/2024/ar/vista-outdoor-inc-_fy24-annual-report-as-filed.pdf (last visited November 26, 2024), at pp. 2-3.
[11] *See*, *e.g.*, Vista Outdoor 2024 Annual Report, https://s29.q4cdn.com/177147254/files/doc_financials/2024/ar/vista-outdoor-inc-_fy24-annual-report-as-filed.pdf (last visited November 26, 2024), at pp. 2-3.

is one of the most recognized and revered brands in motorcross and mountain bike protection."[12]

11. On information and belief, defendant Vista Outdoor Operations LLC is a limited liability company organized and existing under the laws of the State of Delaware, with its principal place of business at 1 Vista Way, Anoka, Minnesota 55303. On further information and belief, Vista Outdoor Operations LLC. is registered to do business in California. On further information and belief, Vista Outdoor Operations LLC is a wholly-owned subsidiary of defendant Vista Outdoor Inc. Vista Outdoor Inc. and Vista Outdoor Operations LLC will be, for the purposes of this complaint, collectively referred to as "Vista."

12. On information and belief, defendant Revelyst Sales LLC ("Revelyst") is limited liability corporation organized under the laws of the State of Delaware, with its corporate headquarters listed as 1 Vista Way, Anoka, Minnesota 55303. On further information and belief, Revelyst is registered to do business in California. On further information and belief, Revelyst is a business entity that is wholly owned by Vista and operates as part of its core sporting and outdoor products business. On further information and belief, Revelyst operates offices located at 16752 Armstrong Avenue, Irvine, California 92606.[13] On further information and belief, and according to Revelyst's website, Revelyst is "a new parent company of more than 30 renown brands that design, manufacture and market outdoor products."[14] In relevant part, Bell, Giro Sport Design, and Fox Racing are listed by Revelyst as brands managed under its "Revelyst Adventure Sports platform."[15]

[12] *See*, *e.g.*, Vista Outdoor 2024 Annual Report, https://s29.q4cdn.com/177147254/files/doc_financials/2024/ar/vista-outdoor-inc-_fy24-annual-report-as-filed.pdf (last visited November 26, 2024), at p. 2.
[13] https://www.revelyst.com/company.html (last visited November, 26, 2024).
[14] https://www.revelyst.com/company.html (last visited November 26, 2024).
[15] https://www.revelyst.com/brands.html (last visited November 26, 2024); *see also* Revelyst's Bell webpage at https://www.revelyst.com/brands/bell.html (last visited November 26, 2024); Revelyst's Giro webpage at

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On further information and belief, Vista has characterized Bell, Giro, and Fox as Revelyst "power brands" in press releases.[16] On further information and belief, Revelyst's "Investors" link at the top of its homepage redirects users to Vista's "Investor Relations" webpage at https://investors.vistaoutdoor.com/overview/default.aspx.

13. On information and belief, on or about October 4, 2024, Vista's Revelyst business unit was acquired by defendant Strategic Value Partners, LLC ("SVP") in "an all-cash transaction based on an enterprise value of $1.125 billion" that is "expected to close by January 2025."[17] On information and belief, SVP is a "global investment firm focused on opportunistic credit and private equity opportunities in North America and Europe."[18] On further information and belief, SVP is a limited liability company organized under the laws of the State of Delaware with offices in Greenwich, Connecticut, New York City, and Los Angeles.[19] On further information and belief, SVP is registered to do business in California and maintains an office at 11150 Santa Monica Blvd., Suite 1280, Los Angeles, California 90025.[20] On further information and belief, SVP holds an ownership interest in Revelyst and has entered into a "strategic partnership [that] is expected to allow Revelyst

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https://www.revelyst.com/brands/giro.html (last visited November 26, 2024); Revelyst's Fox webpage at https://www.revelyst.com/brands/fox-racing.html (last visited November 26, 2024).

[16] https://investors.vistaoutdoor.com/Investors/news/news-details/2024/Revelyst-Partners-with-Strategic-Value-Partners-to-Accelerate-Growth/default.aspx (last visited November 26, 2024).

[17] https://investors.vistaoutdoor.com/Investors/news/news-details/2024/Revelyst-Partners-with-Strategic-Value-Partners-to-Accelerate-Growth/default.aspx (last visited November 26, 2024).

[18] https://www.svpglobal.com/ (last visited November 26, 2024).

[19] https://www.svpglobal.com/contact-us/ (last visited November 26, 2024).

[20] https://www.svpglobal.com/contact-us/ (last visited November 26, 2024).

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to unlock new opportunities and proper margin expansion across its integrated international house of brands."[21]

14. On information and belief, Defendants' operations in the Central District of California are substantial and varied.

15. By registering to conduct business in California and by maintaining facilities in at least the cities of Los Angeles and Irvine, Defendants each have regular and established places of business within the Central District of California.

16. On information and belief, each of the Defendants is jointly and severally liable for each of the causes of action asserted herein.

JURISDICTION AND VENUE

17. This is an action for patent infringement arising under the Patent Laws of the United States, Title 35 of the United States Code.

18. This Court has original subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

19. This Court has personal jurisdiction over Defendants in this action because Defendants have committed acts within this District giving rise to this action and has established minimum contacts with this forum such that the exercise of jurisdiction over Defendants would not offend traditional notions of fair play and substantial justice. Defendants, directly and/or through subsidiaries or intermediaries, have committed and continue to commit acts of infringement in this District by, among other things, making, using, offering to sell, selling, and/or importing products that infringe the Asserted Patents.

20. Defendants, directly and/or through subsidiaries or intermediaries, have purposefully and voluntarily placed one or more products in the stream of commerce that practice the Asserted Patents with the intention and expectation that they will be purchased

[21] https://investors.vistaoutdoor.com/Investors/news/news-details/2024/Revelyst-Partners-with-Strategic-Value-Partners-to-Accelerate-Growth/default.aspx (last visited November 26, 2024).

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and used by third party resellers and/or end consumers in the Central District of California. These products have been and continue to be purchased and used in this District.

21. Venue is proper in this District under 28 U.S.C. §§ 1391(b)-(c) and 1400(b). Defendants are each registered to do business in California. Additionally, on information and belief, Defendants have transacted business in this District and have committed acts of direct infringement in this District by, among other things, making, using, offering to sell, selling, and/or importing products that infringe the Asserted Patents. Moreover, on information and belief, Defendants each have regular and established places of business in the Central District of California, including at 16752 Armstrong Avenue, Irvine, California 92606 and 11150 Santa Monica Blvd., Suite 1280, Los Angeles, California 90025.

THE ASSERTED PATENTS

22. The '319 Patent is titled "Biomechanics Aware Protective Gear" and was issued by the United States Patent and Trademark Office to inventor Robert T. Knight on October 21, 2014, and assigned to BrainGuard Technologies, Inc. The '319 Patent claims priority to July 21, 2011. A true and correct copy of the '319 Patent is attached hereto as Exhibit A.

23. BrainGuard is the owner of all right, title, and interest in and to the '319 Patent with the full and exclusive right to bring suit to enforce the '319 Patent.

24. The '319 Patent is valid and enforceable under the United States Patent Laws.

25. The '561 Patent is titled "Biomechanics Aware Helmet" and was issued by the United States Patent and Trademark Office to inventor Robert T. Knight on June 23, 2015, and assigned to BrainGuard Technologies, Inc. A true and correct copy of the '561 Patent is attached hereto as Exhibit B.

26. BrainGuard is the owner of all right, title, and interest in and to the '561 Patent with the full and exclusive right to bring suit to enforce the '561 Patent.

27. The '561 Patent is valid and enforceable under the United States Patent Laws.

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28. The ’536 Patent is titled “Biomechanics Aware Protective Gear” and was issued by the United States Patent and Trademark Office to inventor Robert T. Knight on March 1, 2016, and assigned to BrainGuard Technologies, Inc. A true and correct copy of the ’536 Patent is attached hereto as Exhibit C.

29. BrainGuard is the owner of all right, title, and interest in and to the ’536 Patent with the full and exclusive right to bring suit to enforce the ’536 Patent.

30. The ’536 Patent is valid and enforceable under the United States Patent Laws.

31. The ’635 Patent is titled “Biomechanics Aware Helmet” and was issued by the United States Patent and Trademark Office to inventor Robert T. Knight on August 16, 2016, and assigned to BrainGuard Technologies, Inc. A true and correct copy of the ’635 Patent is attached hereto as Exhibit D.

32. BrainGuard is the owner of all right, title, and interest in and to the ’635 Patent with the full and exclusive right to bring suit to enforce the ’635 Patent.

33. The ’635 Patent is valid and enforceable under the United States Patent Laws.

34. The ’909 Patent is titled “Biomechanics Aware Helmet” and was issued by the United States Patent and Trademark Office to inventor Robert T. Knight on December 13, 2016, and assigned to BrainGuard Technologies, Inc. A true and correct copy of the ’909 Patent is attached hereto as Exhibit E.

35. BrainGuard is the owner of all right, title, and interest in and to the ’909 Patent with the full and exclusive right to bring suit to enforce the ’909 Patent.

36. The ’909 Patent is valid and enforceable under the United States Patent Laws.

FIRST CAUSE OF ACTION
(PATENT INFRINGMENT UNDER 35 U.S.C. § 271 OF THE ’319 PATENT BY DEFENDANTS)

37. BrainGuard re-alleges and incorporates by reference all of the foregoing paragraphs.

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38. On information and belief, Defendants have directly infringed and continue to directly infringe either literally or under the doctrine of equivalents, one or more claims, including at least claim 6 of the '319 Patent in violation of 35 U.S.C. § 271, et seq., by making, using, offering to sell, selling, and/or importing at least the Bell Spherical and Giro Spherical Helmets.

39. Claim 6 of the '319 Patent provides:

[6.preamble] A helmet, comprising:

[6.a] an outer shell layer;

[6.b] a middle shell layer connected to the outer shell layer through an outer energy and impact transformer layer,

[6.c] the outer energy and impact transformer layer operable to absorb energy from mechanical forces imparted onto the outer shell layer,

[6.d] wherein the outer energy and impact transformer layer includes means to allow the outer shell layer to slide relative to the middle shell layer;

[6.e] an inner shell layer connected to the middle shell layer through an inner energy and impact transformer layer,

[6.f] the inner energy and impact transformer layer operable to absorb energy from mechanical forces imparted onto the middle shell through the outer shell and the outer energy and impact transformer layer,

[6.g] wherein the inner energy and impact transformer layer includes means to allow the middle shell layer to slide relative to the inner shell layer.

40. On information and belief, Defendants design, make, offer for sale, sell, and/or import Bell Spherical and Giro Spherical Helmets that meet each and every limitation of at least claim 6 of the '319 Patent as stated below.

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41. On information and belief, and based on publicly available information, all Bell Spherical Helmets have the same or similar technology regarding the below-identified features. On further information and belief, and based on publicly available information, the Bell XR Spherical helmet is representative of the Bell Spherical Helmets. On further information and belief, and based on publicly available information, each of the Bell Spherical Helmets functions and is structured in a manner similar, if not identical, to the Bell XR Spherical helmet as it relates to infringing the '319 Patent. And on further information and belief, and based on publicly available information, each of the Bell Spherical Helmets possesses features and/or attributes similar, if not identical, to those features and/or attributes of the Bell XR Spherical helmet identified by BrainGuard as infringing the '319 Patent. Accordingly, the analysis of the Bell XR Spherical helmet that follows applies equally to each of the accused Bell Spherical Helmets.

42. On information and belief, and based on publicly available information, all Giro Spherical Helmets have the same or similar technology regarding the below-identified features. On further information and belief, and based on publicly available information, the Giro Aries Spherical helmet is representative of the Giro Spherical Helmets. On further information and belief, and based on publicly available information, each of the Giro Spherical Helmets functions and is structured in a manner similar, if not identical, to the Giro Aries Spherical helmet as it relates to infringing the '319 Patent. And on further information and belief, and based on publicly available information, each of the Giro Spherical Helmets possesses features and/or attributes similar, if not identical, to those features and/or attributes of the Giro Aries Spherical helmet identified by BrainGuard as infringing the '319 Patent. Accordingly, the analysis of the Giro Aries Spherical helmet that follows applies equally to each of the accused Giro Spherical Helmets.

43. The preamble of claim 6 requires: "[a] helmet." To the extent possible that the preamble of claim 6 of the '319 Patent is determined to be limiting, the Bell Spherical and Giro Spherical Helmets satisfy the preamble, as seen in the figures below.

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Fig. 1.[22] Bell XR Spherical Helmet.



Fig. 2.[23] Giro Aries Spherical Helmet.

[22] https://www.bellhelmets.com/bike/road-and-gravel/p/xr-spherical-road-bike-helmet/100000000300000135.html (last visited November 26, 2024).
[23] https://www.giro.com/p/aries-spherical-road-bike-helmet/100000000300000146.html (last visited November 26, 2024).

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44. Limitation [6.a] requires "an outer shell layer." On information and belief, each of the Bell Spherical and Giro Spherical Helmets satisfies limitation [6.a]. As seen in the figures below, the Bell Spherical and Giro Spherical Helmets are comprised of multiple layers.



Fig. 3.[24] Screenshot of video available at the Bell XR Spherical product page.

[24] https://www.bellhelmets.com/bike/road-and-gravel/p/xr-spherical-road-bike-helmet/100000000300000135.html (last visited November 26, 2024); *see also* https://www.youtube.com/watch?v=Vg0arb4PGt0, at 0:44s (last visited November 26, 2024).

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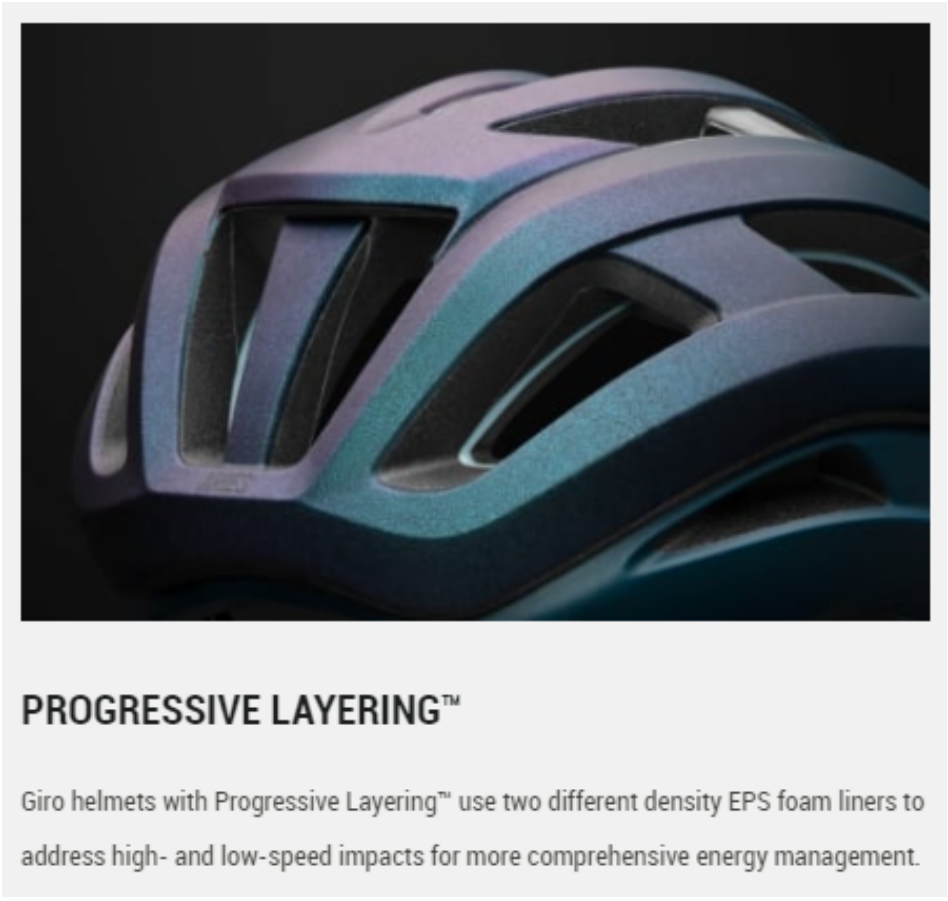


Fig. 4.[25] Screenshot of one of the advertised features of the Giro Aries Spherical helmet noting that the helmet incorporates multiple layers.

45. As further seen in the figures below, each of the Bell Spherical and Giro Spherical Helmets incorporates an outer shell layer.

[25] https://www.giro.com/p/aries-spherical-road-bike-helmet/100000000300000146.html (last visited November 26, 2024).

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Fig. 5.[26] Screenshot of video available at the Bell XR Spherical product page.

[26] https://www.bellhelmets.com/bike/road-and-gravel/p/xr-spherical-road-bike-helmet/100000000300000135.html (last visited November 26, 2024) (emphasis added); *see also* https://www.youtube.com/watch?v=Vg0arb4PGt0, at 0:45s (last visited November 26, 2024).

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Fig. 6. Photo of a Giro Aries Spherical helmet.

46. Thus, the Bell Spherical and Giro Spherical Helmets satisfy limitation [6.a] of the '319 Patent.

47. Limitation [6.b] requires "a middle shell layer connected to the outer shell layer through an outer energy and impact transformer layer." On information and belief, each of the Bell Spherical and Giro Spherical Helmets satisfies limitation [6.b]. For example, the Bell XR Spherical helmet, as seen in the figure below, satisfies limitation [6.b]. The Bell XR Spherical helmet, as previously discussed, incorporates an "outer shell layer" (the gray component in the figure below). Further, the Bell XR Spherical helmet incorporates a "middle shell layer" (the blue component in the figure below). Lastly, the Bell XR Spherical helmet incorporates an "outer energy and impact transformer layer" connecting the outer and middle layers, which is comprised of the low-friction elastic band

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interface (the yellow elastic elements in the figure below) between the shells that allows them to rotate relative to one another during impact.

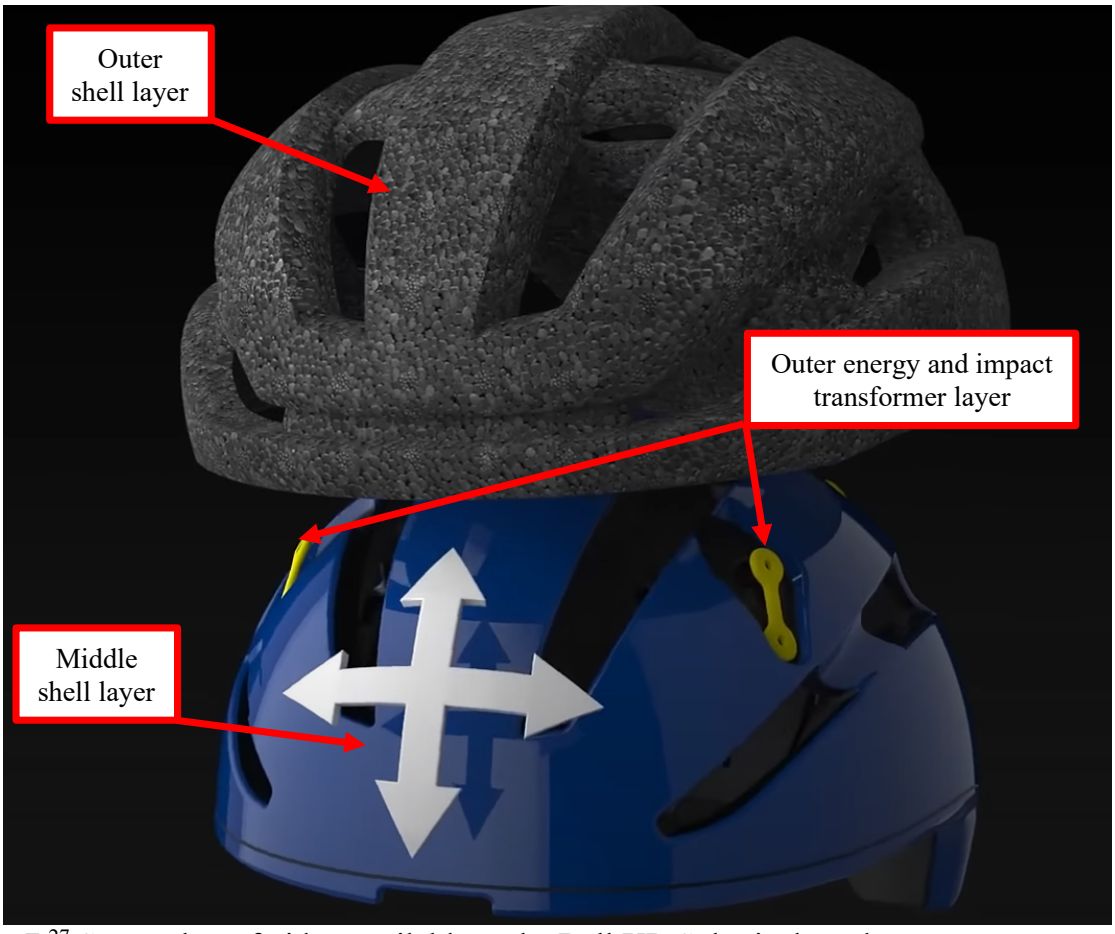


Fig. 7.[27] Screenshot of video available at the Bell XR Spherical product page.

48. As a further example, the figure below demonstrates the Bell XR Spherical helmet as commercially sold, with the outer, middle, and transformer layers visible.

[27] https://www.bellhelmets.com/bike/road-and-gravel/p/xr-spherical-road-bike-helmet/100000000300000135.html (last visited November 26, 2024)(emphasis added); *see also* https://www.youtube.com/watch?v=Vg0arb4PGt0, at 0:45s (last visited November 26, 2024).

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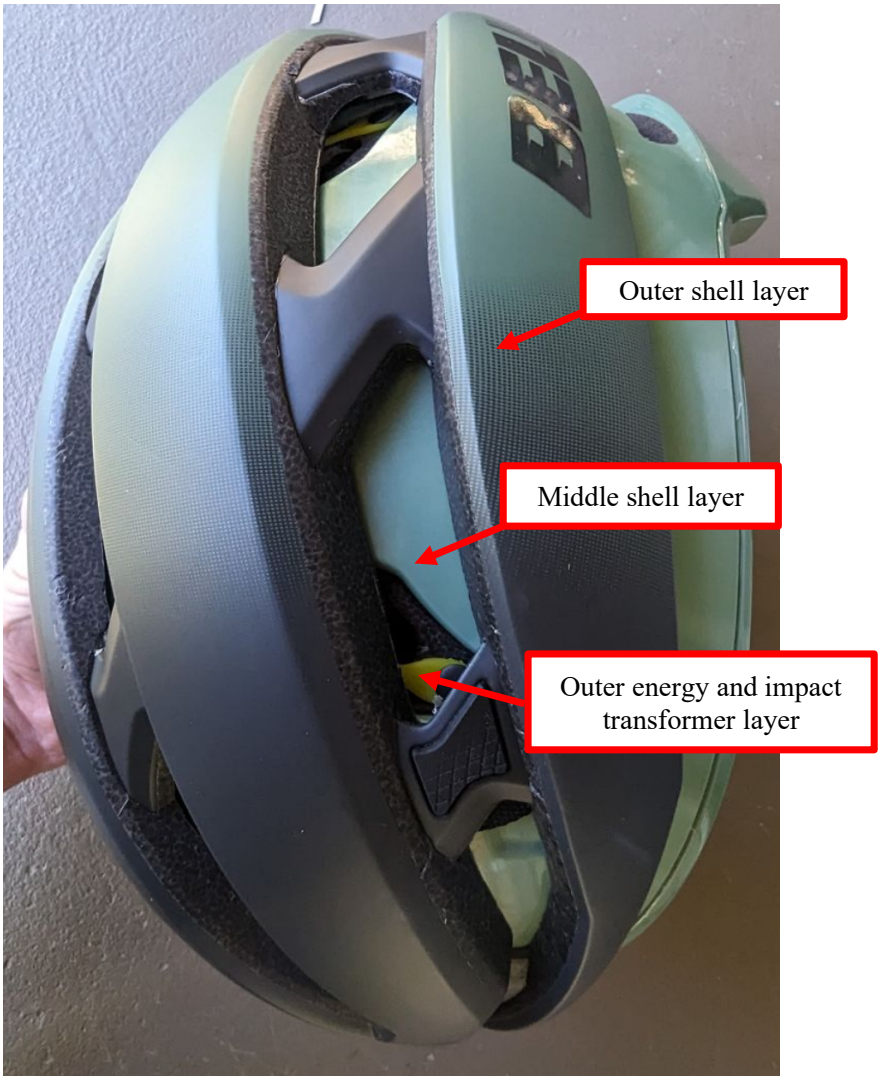


Fig. 8. Photo of Bell XR Spherical helmet with outer, middle, and transformer layers marked.

49. As a further example, the Giro Aries Spherical Helmet also satisfies limitation [6.b]. As seen and marked in the figure below, the Giro Aries Spherical helmet incorporates an "outer shell layer." Further, as seen and marked in the figure below, the Giro Aries Spherical helmet incorporates a "middle shell layer." Lastly, the Giro Aries Spherical helmet incorporates an "outer energy and impact transformer layer" connecting the outer and middle layers, which is comprised of the low-friction elastic band interface (the yellow

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elastic elements in the figure below) between the outer and middle shell layers that allows them to rotate relative to one another during impact.

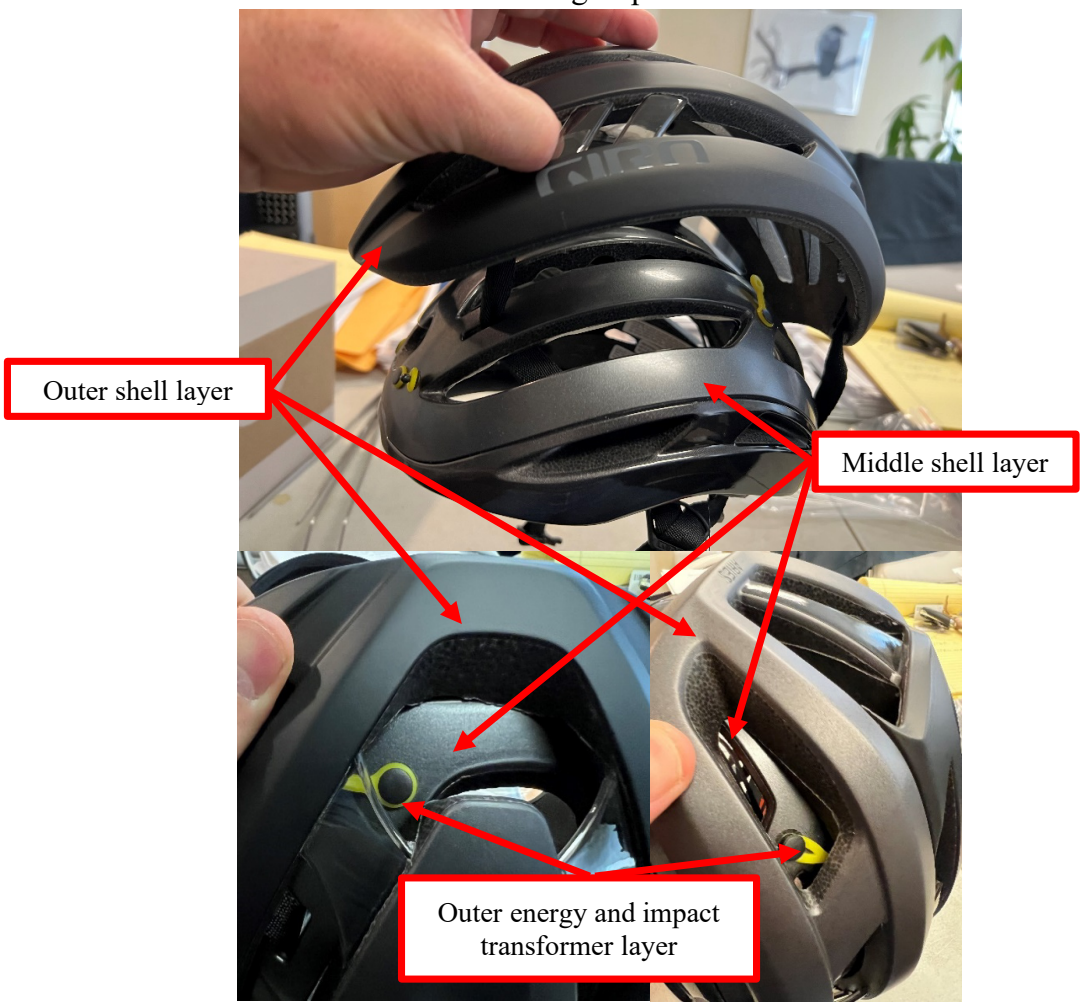


Fig. 9. Photos of the Giro Aries Spherical helmet with outer, middle, and outer energy and impact transformer layers marked.

50. Thus, the Bell Spherical and Giro Spherical Helmets satisfy limitation [6.b] of the ’319 Patent.

51. Limitation [6.c] requires “the outer energy and impact transformer layer operable to absorb energy from mechanical forces imparted onto the outer shell layer.” On information and belief, each of the Bell Spherical and Giro Spherical Helmets satisfies

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limitation [6.c]. For example, the Bell XR Spherical helmet, as seen in the figure below, satisfies limitation [6.c]. On information and belief, the outer energy and impact transformer layer (the yellow elastic elements) absorbs energy from forces imparted on the outer shell layer (e.g., the large red arrow indicating a frontal impact) by allowing the outer and middle layers to slide relative to each other and transferring energy to the elastic bands.

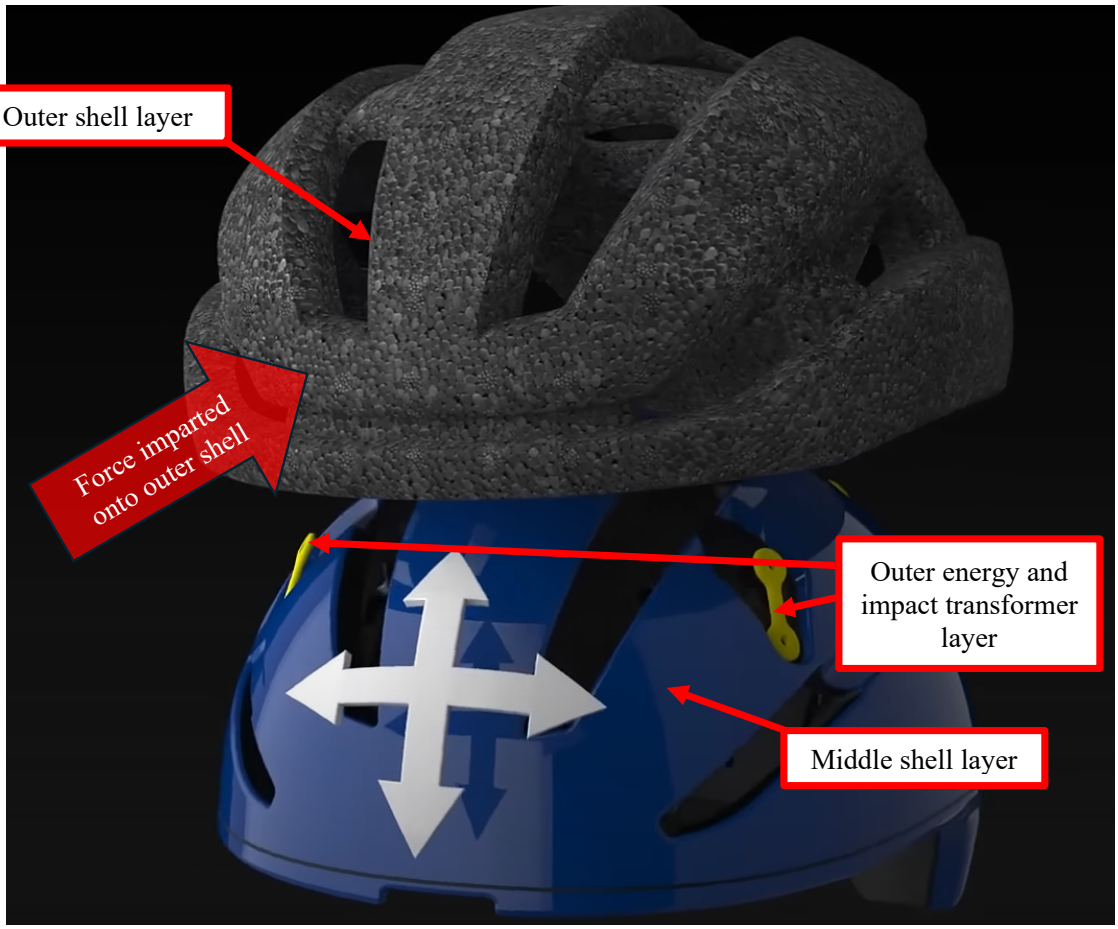


Fig. 10.[28] Screenshot of video available at the Bell XR Spherical product page with components labeled.

[28] https://www.bellhelmets.com/bike/road-and-gravel/p/xr-spherical-road-bike-helmet/100000000300000135.html (last visited November 26, 2024)(emphasis added); *see also* https://www.youtube.com/watch?v=Vg0arb4PGt0, at 0:45-1:03 (last visited November 26, 2024).

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52. On further information and belief, Defendants advertise that "Spherical combines two different materials—EPS and EPP—to better manage both high and low speed impacts. The Ball-and-Socket design powered by MIPS can help redirect impact forces away from the brain by allowing the outer liner to rotate around the inner liner during a crash."[29]

53. On further information and belief, the Giro Aries Spherical helmet also satisfies limitation [6.c]. The figure below demonstrates that the outer energy and impact transformer layer (the yellow elastic element) allows the outer shell and middle shell layers to slide relative to one another when a force is imparted on the outer shell layer. Testing by BrainGuard of the commercially-available Giro Aries Spherical helmet confirmed that applying a force on the outer shell layer of a Giro Aries Spherical helmet allowed the outer energy and impact transformer layer to absorb energy from a mechanical force imparted onto the outer shell layer (here, applied via pressure from a user's thumb).

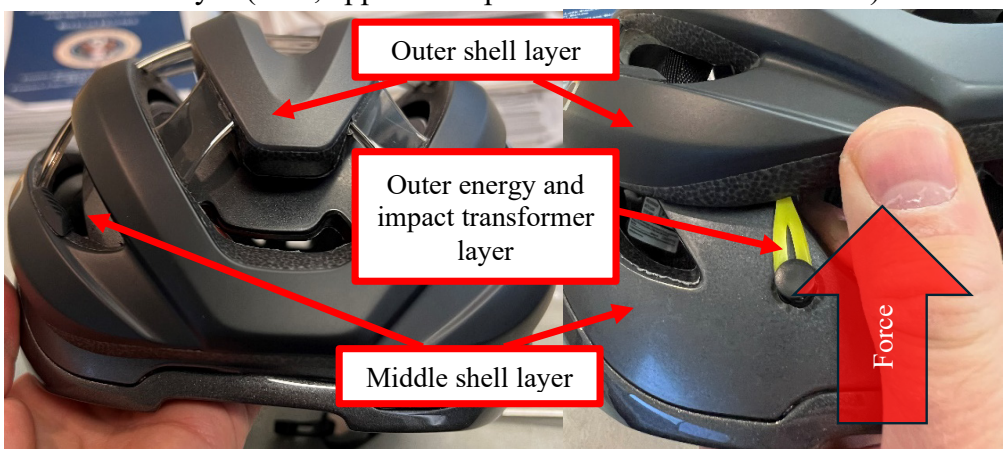


Fig. 11. Photos of testing a Giro Aries Spherical helmet. In this example, force is applied to the outer shell layer by a thumb in the direction of the red arrow.

[29] https://www.bellhelmets.com/bike/road-and-gravel/p/xr-spherical-road-bike-helmet/100000000300000135.html (last visited November 26, 2024); *see also* https://www.youtube.com/watch?v=Vg0arb4PGt0, at 0:45-1:03 (last visited November 26, 2024).

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54. Thus, the Bell Spherical and Giro Spherical Helmets satisfy limitation [6.c] of the '319 Patent.

55. Limitation [6.d] requires "wherein the outer energy and impact transformer layer includes means to allow the outer shell layer to slide relative to the middle shell layer." On information and belief, each of the Bell Spherical and Giro Spherical Helmets satisfies limitation [6.d]. As previously discussed in connection with at least limitation [6.c] herein, each of the Bell Spherical and Giro Spherical Helmets allows the outer and middle shell layers to slide relative to each other during impact via the outer energy and impact transformer layer.

56. As a further example, and as seen below, Defendants advertise the Ball-and-Socket design in connection with Bell Spherical Helmets.

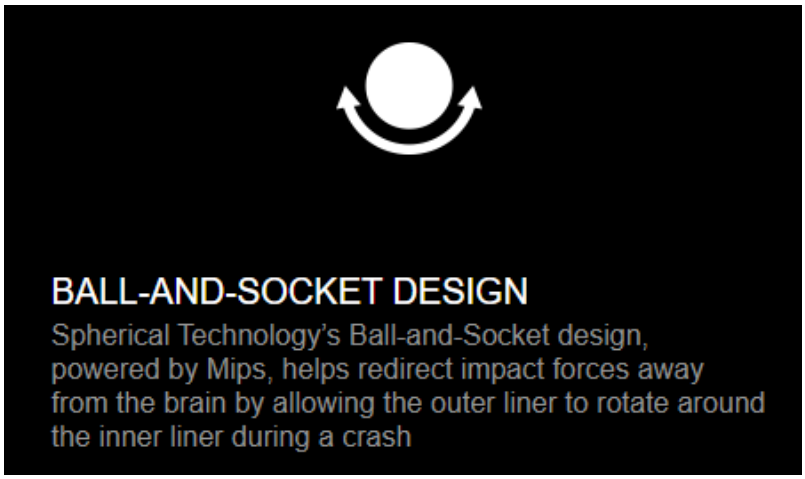


Fig. 12.[30] Screenshot of Bell Helmet Spherical Technology webpage.

57. As a further example, and as seen below, Defendants advertise the Ball-and-Socket design in connection with Giro Spherical Helmets.

[30] https://www.bellhelmets.com/technology/spherical.html (last visited November 26, 2024).

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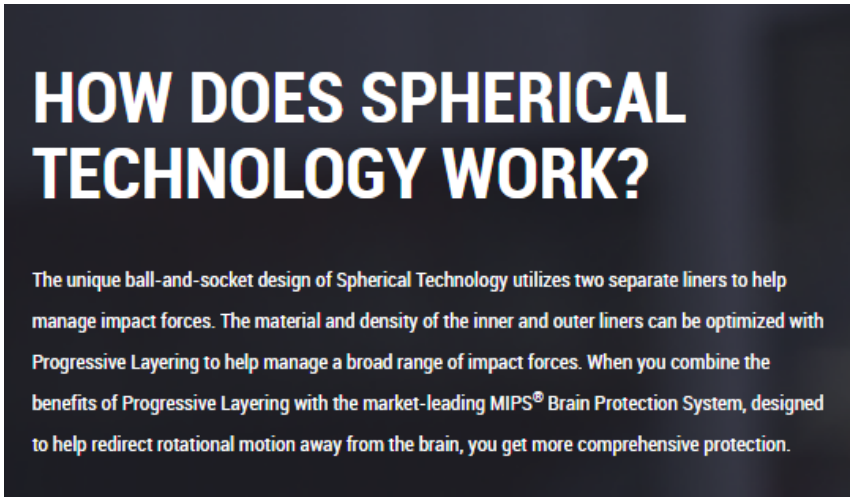


Fig. 13.[31] Excerpts of Giro's Spherical Technology webpage.

58. Thus, the Bell Spherical and Giro Spherical Helmets satisfy limitation [6.d] of the '319 Patent.

59. Limitation [6.e] requires "an inner shell layer connected to the middle shell layer through an inner energy and impact transformer layer." On information and belief, each of the Bell Spherical and Giro Spherical Helmets satisfies limitation [6.e]. For example, the Bell XR Spherical helmet includes an inner shell layer connected to the middle shell layer through an inner energy and impact transformation layer, as depicted in the figure below.

[31] https://www.giro.com/technology/spherical.html (last visited November 26, 2024).

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Fig. 14.[32] Screenshot from the Bike Rumor! review article regarding the Bell XR Spherical helmet.

60. Testing of the Bell XR Spherical helmet confirmed the presence of an inner shell layer connected to the middle shell layer through an inner energy and impact transformer layer, as seen in the figures below.

[32] https://bikerumor.com/review-bell-xr-spherical-gravel-adventure-helmet/ (last visited November 26, 2024).

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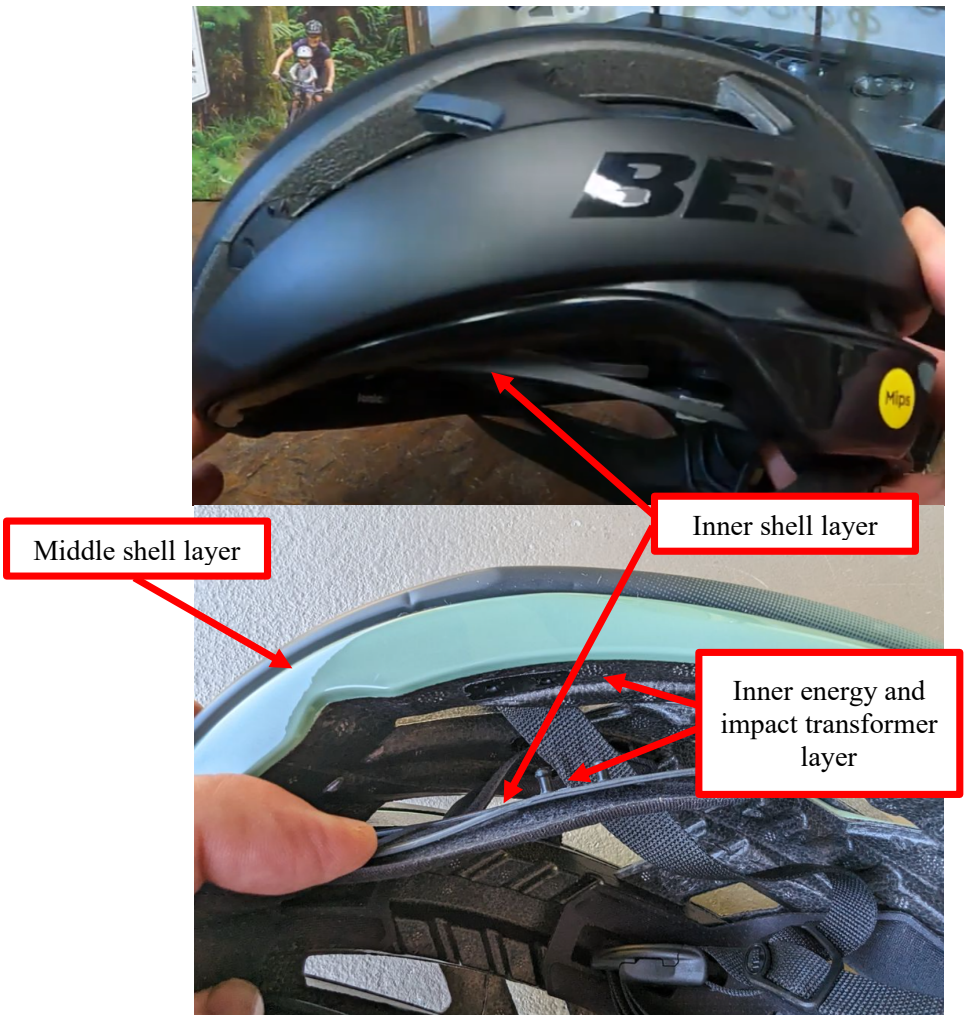


Fig. 15. Photos of the Bell XR Spherical helmet. The bottom photo depicts the inner shell layer disconnected from the middle shell layer to show the connection mechanism.

61. As a further example, the Giro Aries Spherical helmet includes an inner shell layer connected to the middle shell layer through an inner energy and impact transformation layer, as depicted in the figure below.

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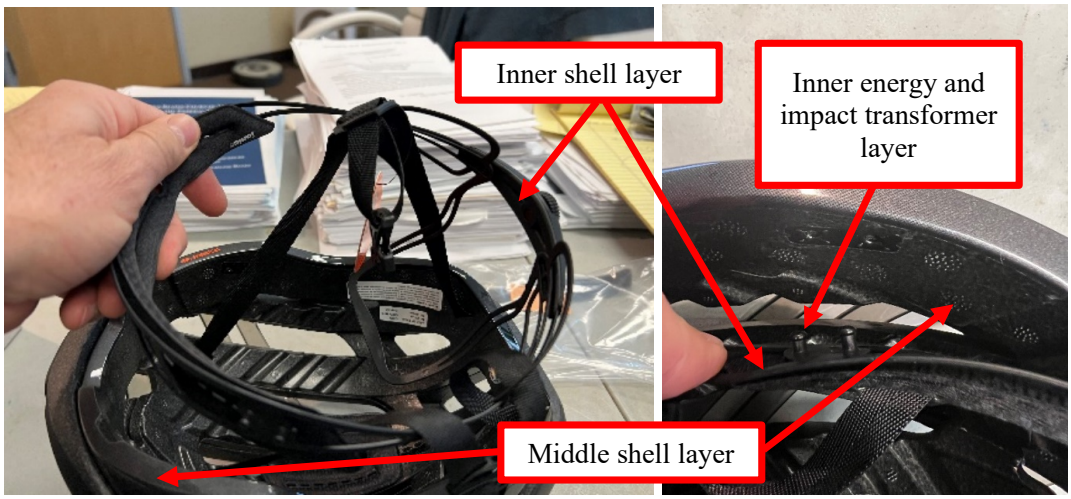


Fig. 16. Photos of the Giro Aries Spherical helmet showing the inner shell layer (disconnected from middle shell layer for illustration) (at left) and a close-up of the disconnected inner shell and middle shell layers (at right) to show the connection mechanism (the inner energy and impact transformer layer).

62. Thus, the Bell Spherical and Giro Spherical Helmets satisfy limitation [6.e] of the '319 Patent.

63. Limitation [6.f] requires "the inner energy and impact transformer layer operable to absorb energy from mechanical forces imparted onto the middle shell through the outer shell and the outer energy and impact transformer layer." On information and belief, each of the Bell Spherical and Giro Spherical Helmets satisfies limitation [6.f]. For example, based on information and belief and as depicted in the figure below, the Bell XR Spherical helmet incorporates an inner energy and impact transformer layer that includes both absorptive/dissipative material in the middle shell layer (e.g., the gray compressible material) to which the inner shell layer is attached, as well as absorptive/dissipative material in the flexible attachment between the middle and inner shell layers.

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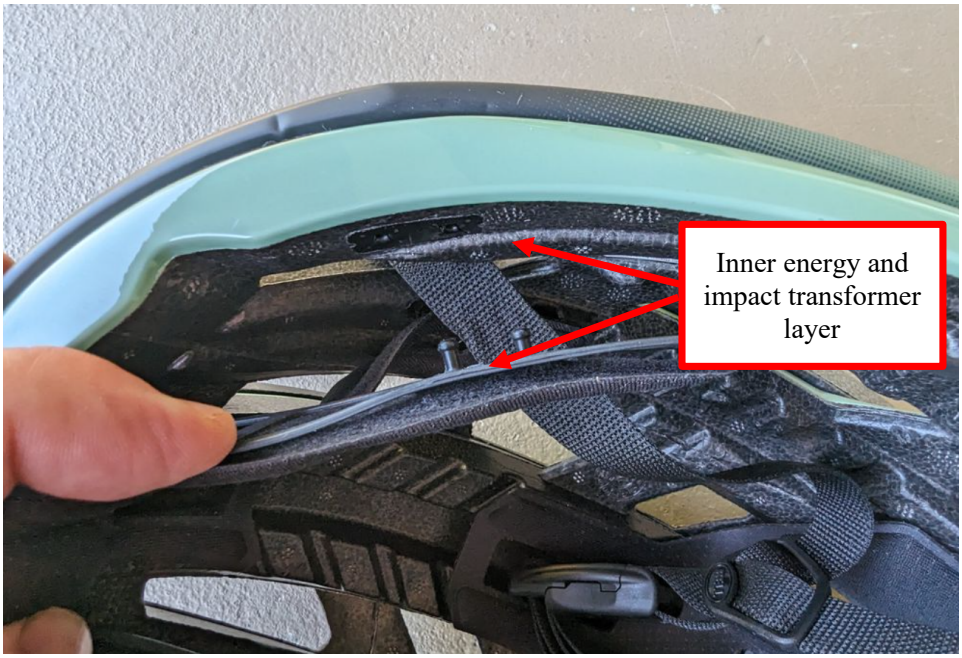


Fig. 17. Photo of the Bell XR Spherical helmet's inner and middle shells shown disconnected from one another to illustrate the connection mechanism.

64. As a further example, the Giro Aries Spherical helmet includes an inner energy and impact transformation layer that includes at least the flexible attachment between the middle and inner shell layers, as depicted in the figure below.



Fig. 18. Close-up photo of Giro Aries Spherical showing the disconnected inner shell and middle shell layers to illustrate the connection mechanism.

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65. On further information and belief, and as depicted in the figure below, the inner energy and impact transformer layer also includes at compressible material in the middle shell layer to which the inner shell layer is attached.

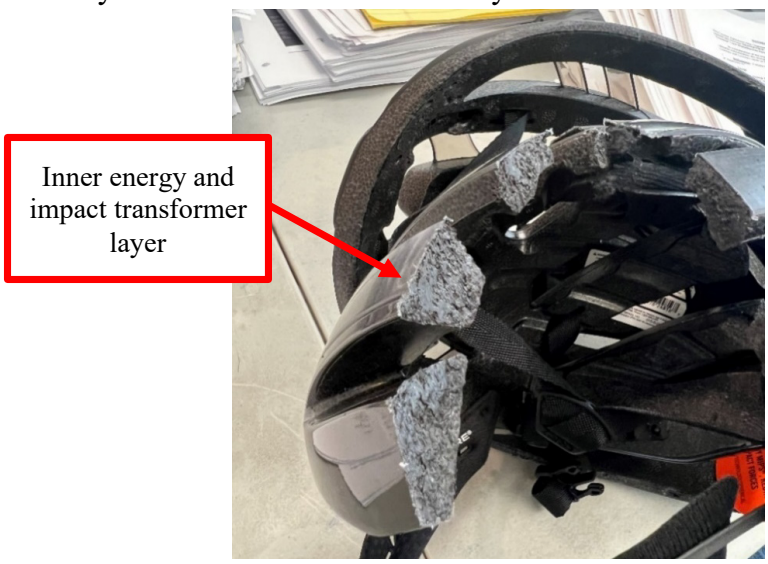


Fig. 19. Photo of cross-section of the Giro Aries Spherical helmet. Note the compressible material comprising the middle shell.

66. Thus, the Bell Spherical and Giro Spherical Helmets satisfy limitation [6.f] of the '319 Patent.

67. Limitation [6.g] requires "wherein the inner energy and impact transformer layer includes means to allow the middle shell layer to slide relative to the inner shell layer." On information and belief, each of the Bell Spherical and Giro Spherical Helmets satisfies limitation [6.g]. For example, based on information and belief and as depicted in the figure below, the Bell XR Spherical helmet is advertised by Defendants to "help[] redirect impact forces away from the brain by allowing the outer liner to rotate around the inner liner during a crash."[33] Further, Defendants advertise that "[t]he Ball-and-Socket design powered by MIPS can help redirect impact forces away from the brain by allowing

[33] *See, e.g.*, https://www.bellhelmets.com/technology/spherical.html (last visited November 26, 2024).

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the outer liner to rotates around the inner liner during a crash."[34] On information and belief, the inner energy and impact transformer layer of the Bell XR Spherical helmet will deform to absorb energy from forces imparted on the middle shell layer through the outer shell and outer energy and impact transformer layers. On further information and belief, the inner shell layer will slide relative to the middle shell layer due to the deformation of the inner energy and impact transformer layer on impact.

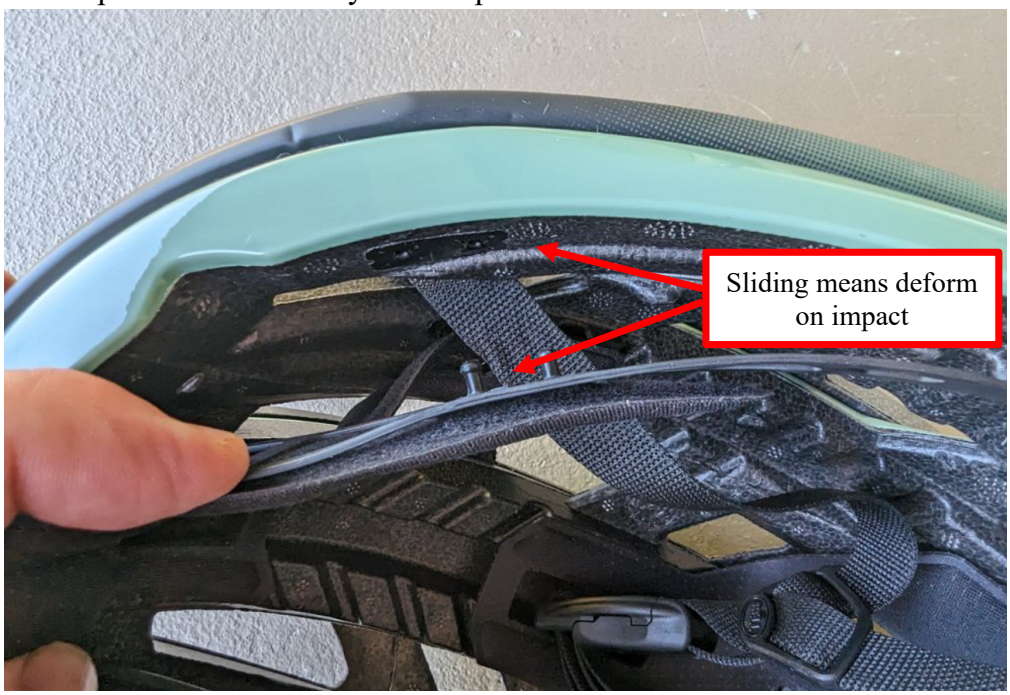


Fig. 20. Photo of the Bell XR Spherical inner and middle shells shown disconnected from one another to illustrate the connection mechanism.

68. As a further example, and based on information and belief, the Giro Aries Spherical helmet includes an inner energy and impact transformation layer that includes means to allow the middle layer to slide relative to the inner shell layer. On information and belief, the inner energy and impact transformer layer of the Giro Aries Spherical helmet

[34] *See*, *e.g.*, https://www.bellhelmets.com/technology/spherical.html (last visited November 26, 2024); *see also* https://www.youtube.com/watch?v=Vg0arb4PGt0, at 0:45-1:03 (last visited November 26, 2024).

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will deform to absorb energy from forces imparted on the middle shell layer through the outer shell and outer energy and impact transformer layers. On information and belief, the inner shell layer will slide relative to the middle shell layer due to the deformation of the inner energy and impact transformer layer on impact.

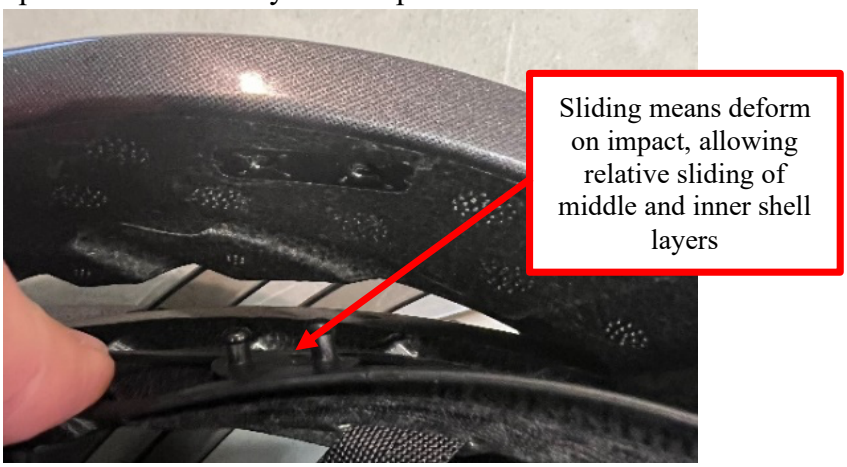


Fig. 21. Close-up photo of Giro Aries Spherical showing the disconnected inner shell and middle shell layers to illustrate the connection mechanism.

69. As a further example, Defendants advertise that Giro Spherical Helmets incorporate "Ball-and-Socket design, powered by MIPS®, [which] helps redirect impact forces away from the brain by allowing the outer liner to rotate around the inner liner during a crash. It also eliminates contact with hard plastic or slip-planes against the skin."[35]

70. Thus, the Bell Spherical and Giro Spherical Helmets satisfy limitation [6.g] of the '319 Patent.

71. Therefore, each of the Bell Spherical and Giro Spherical Helmets satisfies each and every limitation of claim 6 of the '319 Patent, and therefore infringes at least claim 6 of the '319 Patent.

72. At least as of the date of filing of the instant suit, Defendants have had knowledge of their infringement of the '319 Patent. Accordingly, and to the extent that

[35] https://www.giro.com/technology/spherical.html (last visited November 26, 2024).

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Defendants continue to make, use, sell, offer to sell, and/or import any of the Bell Spherical or Giro Spherical Helmets, Defendants' infringement of the '319 Patent in violation of 35 U.S.C. §§ 271 et seq. as detailed above, following the filing of the instant suit, is and continues to be willful.

73. As a result of Defendants' infringement of the '319 Patent, BrainGuard has suffered and continues to suffer substantial injury and is entitled to recover all damages caused by Defendants' infringement to the fullest extent permitted by the Patent Act, together with prejudgment interest and costs for Defendants' wrongful conduct.

SECOND CAUSE OF ACTION
(PATENT INFRINGMENT UNDER 35 U.S.C. § 271 OF THE '561 PATENT BY DEFENDANTS)

74. BrainGuard re-alleges and incorporates by reference all of the foregoing paragraphs.

75. On information and belief, Defendants have directly infringed and continue to directly infringe either literally or under the doctrine of equivalents, one or more claims, including at least claim 10, of the '561 Patent in violation of 35 U.S.C. § 271, et seq., by making, using, offering to sell, selling, and/or importing at least the Bell MIPS, Bell Spherical, Giro MIPS, Giro Spherical, and Fox MIPS Helmets.

76. Claim 10 of the '561 Patent provides:

[10.preamble] A helmet comprising:

[10.a] a first shell layer;

[10.b] a second shell layer connected to the first shell layer through a first energy transformer layer,

[10.c] the first energy transformer layer operable to absorb energy from forces imparted onto the first shell layer,

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[10.d] wherein the first energy transformer layer includes an absorptive/dissipative material to allow the first shell layer to slide relative to the second shell layer;

[10.e] a lining layer connected to the second shell layer, wherein the lining layer is configured to conform to a human head.

77. On information and belief, Defendants design, make, offer for sale, sell, and/or import Bell MIPS, Bell Spherical, Giro MIPS, Giro Spherical, and Fox MIPS Helmets that meet each and every limitation of at least claim 10 of the '561 Patent as stated below.

78. On information and belief, and based on publicly available information, all Bell MIPS Helmets have the same or similar technology regarding the below-identified features. On further information and belief, and based on publicly available information, the Bell Stratus MIPS helmet is representative of the Bell MIPS Helmets. On further information and belief, and based on publicly available information, each of the Bell MIPS Helmets functions and is structured in a manner similar, if not identical, to the Bell Stratus MIPS helmet as it relates to infringing the '561 Patent. And on further information and belief, and based on publicly available information, each of the Bell MIPS Helmets possesses features and/or attributes similar, if not identical, to those features and/or attributes of the Bell Stratus MIPS helmet identified by BrainGuard as infringing the '561 Patent. Accordingly, the analysis of the Bell Stratus MIPS helmet that follows applies equally to each of the accused Bell MIPS Helmets.

79. On information and belief, and based on publicly available information, all Bell Spherical Helmets have the same or similar technology regarding the below-identified features. On further information and belief, and based on publicly available information, the Bell XR Spherical helmet is representative of the Bell Spherical Helmets. On further information and belief, and based on publicly available information, each of the Bell Spherical Helmets functions and is structured in a manner similar, if not identical, to the

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Bell XR Spherical helmet as it relates to infringing the '561 Patent. And on further information and belief, and based on publicly available information, each of the Bell Spherical Helmets possesses features and/or attributes similar, if not identical, to those features and/or attributes of the Bell XR Spherical helmet identified by BrainGuard as infringing the '561 Patent. Accordingly, the analysis of the Bell XR Spherical helmet that follows applies equally to each of the accused Bell Spherical Helmets.

80. On information and belief, and based on publicly available information, all Giro MIPS Helmets have the same or similar technology regarding the below-identified features. On further information and belief, and based on publicly available information, the Giro Syntax Mips helmet is representative of the Giro MIPS Helmets. On further information and belief, and based on publicly available information, each of the Giro MIPS Helmets functions and is structured in a manner similar, if not identical, to the Giro Syntax Mips helmet as it relates to infringing the '561 Patent. And on further information and belief, and based on publicly available information, each of the Giro MIPS Helmets possesses features and/or attributes similar, if not identical, to those features and/or attributes of the Giro Syntax Mips helmet identified by BrainGuard as infringing the '561 Patent. Accordingly, the analysis of the Giro Syntax Mips helmet that follows applies equally to each of the accused Giro MIPS Helmets.

81. On information and belief, and based on publicly available information, all Giro Spherical Helmets have the same or similar technology regarding the below-identified features. On further information and belief, and based on publicly available information, the Giro Aries Spherical helmet is representative of the Giro Spherical Helmets. On further information and belief, and based on publicly available information, each of the Giro Spherical Helmets functions and is structured in a manner similar, if not identical, to the Giro Aries Spherical helmet as it relates to infringing the '561 Patent. And on further information and belief, and based on publicly available information, each of the Giro Spherical Helmets possesses features and/or attributes similar, if not identical, to those

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features and/or attributes of the Giro Aries Spherical helmet identified by BrainGuard as infringing the '561 Patent. Accordingly, the analysis of the Giro Aries Spherical helmet that follows applies equally to each of the accused Giro Spherical Helmets.

82. On information and belief, and based on publicly available information, all Fox MIPS Helmets have the same or similar technology regarding the below-identified features. On further information and belief, and based on publicly available information, the Fox Proframe RS helmet is representative of the Fox MIPS Helmets. On further information and belief, and based on publicly available information, each of the Fox MIPS Helmets functions and is structured in a manner similar, if not identical, to the Fox Proframe RS helmet as it relates to infringing the '561 Patent. And on further information and belief, and based on publicly available information, each of the Fox MIPS Helmets possesses features and/or attributes similar, if not identical, to those features and/or attributes of the Fox Proframe RS helmet identified by BrainGuard as infringing the '561 Patent. Accordingly, the analysis of the Fox Proframe RS helmet that follows applies equally to each of the accused Fox MIPS Helmets.

83. The preamble of claim 10 requires: "[a] helmet." To the extent possible that the preamble of claim 10 of the '561 Patent is determined to be limiting, the Bell MIPS, Bell Spherical, Giro MIPS, Giro Spherical, and Fox MIPS Helmets satisfy the preamble, as seen in the figures below.

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Fig. 22.[36] Bell Stratus MIPS helmet.



Fig. 23.[37] Bell XR Spherical Helmet.

[36] https://www.bellhelmets.com/bike/p/stratus-mips-road-bike-helmet/100000000300000063.html (last visited November 26, 2024).
[37] https://www.bellhelmets.com/bike/road-and-gravel/p/xr-spherical-road-bike-helmet/100000000300000135.html (last visited November 26, 2024).

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Fig. 24.[38] Giro Syntax Mips helmet.



Fig. 25.[39] Giro Aries Spherical Helmet.

[38] https://www.giro.com/p/syntax-mips-road-bike-helmet/GR-7159866.html (last visited November 26, 2024).

[39] https://www.giro.com/p/aries-spherical-road-bike-helmet/100000000300000146.html (last visited November 26, 2024).

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Fig. 26.[40] Fox Proframe RS Helmet.

84. Limitation [10.a] requires "a first shell layer." On information and belief, each of the Bell MIPS, Bell Spherical, Giro MIPS, Giro Spherical, and Fox MIPS Helmets satisfies limitation [10.a]. For example, based on information and belief and as depicted in the figures below, each of the Bell Stratus MIPS, Bell XR Spherical, Giro Syntax Mips, Giro Aries Spherical, and Fox Proframe RS helmets includes a first shell layer.

[40] https://www.foxracing.com/product/proframe-rs-helmet/32497.html?dwvar_32497_color=008&dwvar_32497_size=L&_gl=1*983zu4*_up*MQ..*_ga*NzI2NDA1NDc1LjE3MzMzMzkyMjI.*_ga_M8LBEVFY1P*MTczMzMzOTIyMS4xLjAuMTczMzMzOTIyMS4wLjAuNjQ2MDYxNzI3 (last visited November 26, 2024).

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Fig. 27.[41] Photo of Bell Stratus MIPS helmet.



Fig. 28.[42] Photo of Bell XR Spherical helmet.

[41] *See also* https://www.bellhelmets.com/bike/p/stratus-mips-road-bike-helmet/100000000300000063.html (last visited November 26, 2024).

[42] *See also* https://www.bellhelmets.com/bike/road-and-gravel/p/xr-spherical-road-bike-helmet/100000000300000135.html (last visited November 26, 2024).

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Fig. 29.[43] Photo of Giro Syntax Mips helmet.



Fig. 30.[44] Photo of Giro Aries Spherical helmet.

[43] *See also* https://www.giro.com/p/syntax-mips-road-bike-helmet/GR-7159866.html (last visited November 26, 2024).

[44] *See also* https://www.giro.com/p/aries-spherical-road-bike-helmet/100000000300000146.html (last visited November 26, 2024).

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Fig. 26.[45] Fox Proframe RS Helmet.

85. Thus, the Bell MIPS, Bell Spherical, Giro MIPS, Giro Spherical, and Fox MIPS Helmets satisfy limitation [10.a] of the '561 Patent.

86. Limitation [10.b] requires "a second shell layer connected to the first shell layer through a first energy transformer layer." On information and belief, each of the Bell MIPS, Bell Spherical, Giro MIPS, Giro Spherical, and Fox MIPS Helmets satisfies limitation [10.b].

[45] https://www.foxracing.com/product/proframe-rs-helmet/32497.html?dwvar_32497_color=008&dwvar_32497_size=L&_gl=1*983zu4*_up*MQ..*_ga*NzI2NDA1NDc1LjE3MzMzMzkyMjI.*_ga_M8LBEVFY1P*MTczMzMzOTIyMS4xLjAuMTczMzMzOTIyMS4wLjAuNjQ2MDYxNzI3 (last visited November 26, 2024).

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87. For example, on information and belief, and as seen in the figures below, each of the Bell MIPS Helmets (as exemplified by the Bell Stratus MIPS helmet) includes a second shell layer connected to the first shell layer through a first energy transformer layer.



Fig. 30. Photos of the Bell Stratus MIPS helmet with first shell, second shell, and first energy transformer layers labeled.

88. On information and belief, Bell MIPS Helmets (as exemplified by the Bell Stratus MIPS helmet) equipped with MIPS Evolve technology have energy transformers (seen above as yellow elastic elements disposed between the first and second shell layers) that comprise the energy transformer layer connecting the first shell layer with the second shell layer.

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89. As a further example, and as seen in the figure below, Bell MIPS Helmets equipped with MIPS Evolve technology use "slip plane technology… designed to reduce rotational forces that can result from certain impacts" and which technology allows the first shell layer to slide relative to the second shell layer.



Fig. 31.[46] Photo of MIPS Evolve informational tag attached to a Bell Stratus MIPS helmet.

90. As a further example, on information and belief, and as seen in the figure below, each of the Bell Spherical Helmets (as exemplified by the Bell XR Spherical helmet) includes a second shell layer connected to the first shell layer through a first energy transformer layer.

[46] *See also* https://www.bellhelmets.com/technology/mips.html (last visited November 26, 2024).

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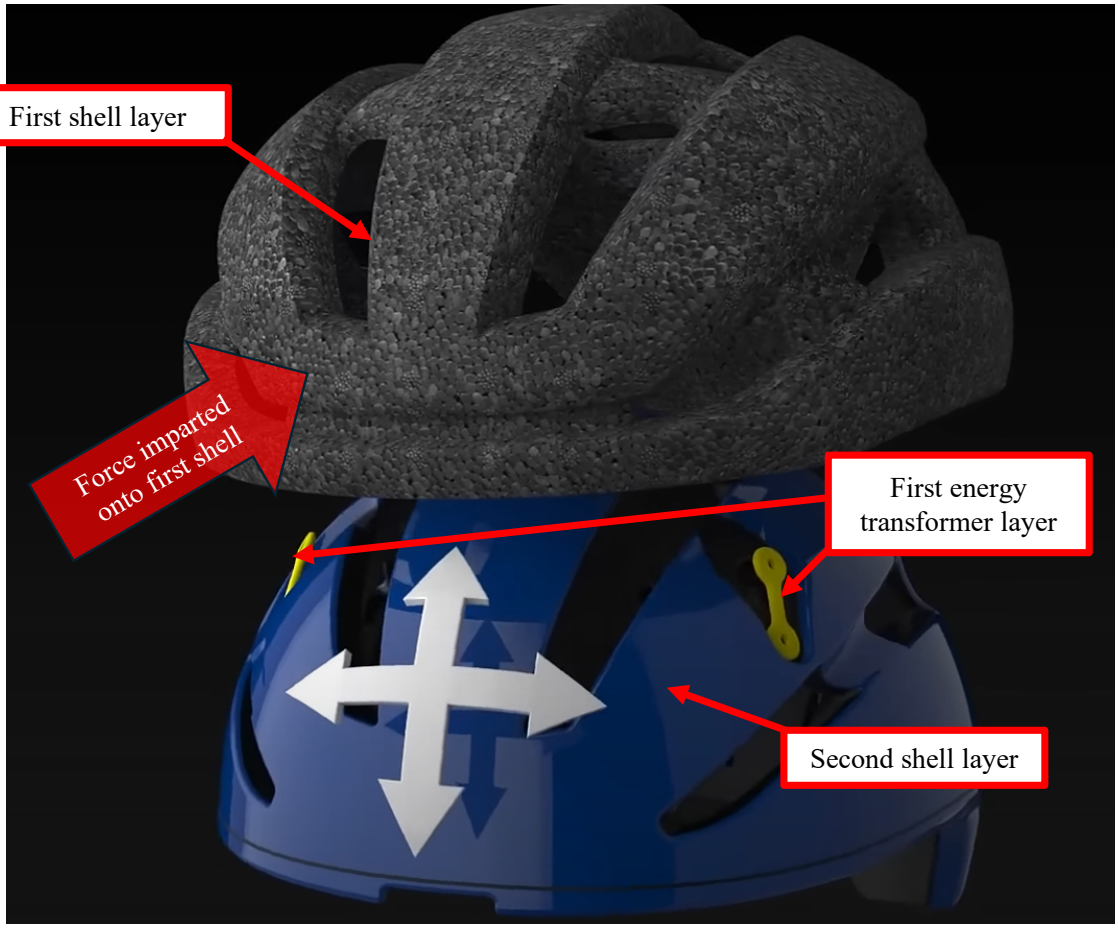


Fig. 32.[47] Screenshot of video available at the Bell XR Spherical product page with components labeled.

91. As a further example, on information and belief, and as seen in the figure below, each of the Giro MIPS Helmets (as exemplified by the Giro Syntax Mips helmet) includes a second shell layer connected to the first shell layer through a first energy

[47] https://www.bellhelmets.com/bike/road-and-gravel/p/xr-spherical-road-bike-helmet/100000000300000135.html (last visited November 26, 2024)(emphasis added); *see also* https://www.youtube.com/watch?v=Vg0arb4PGt0, at 0:45-1:03 (last visited November 26, 2024) ("Spherical combines two different materials: EPS and EPP to help better manage both high and low speed impacts. The Ball-and-Ssocket design powered by MIPS can help redirect impact forces away from the brain by allowing the outer liner to rotate around the inner liner during a crash.").

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transformer layer. On information and belief, each of the Giro MIPS Helmets includes energy transformers (seen below as yellow elastic elements) that connect the first and second shell layers.

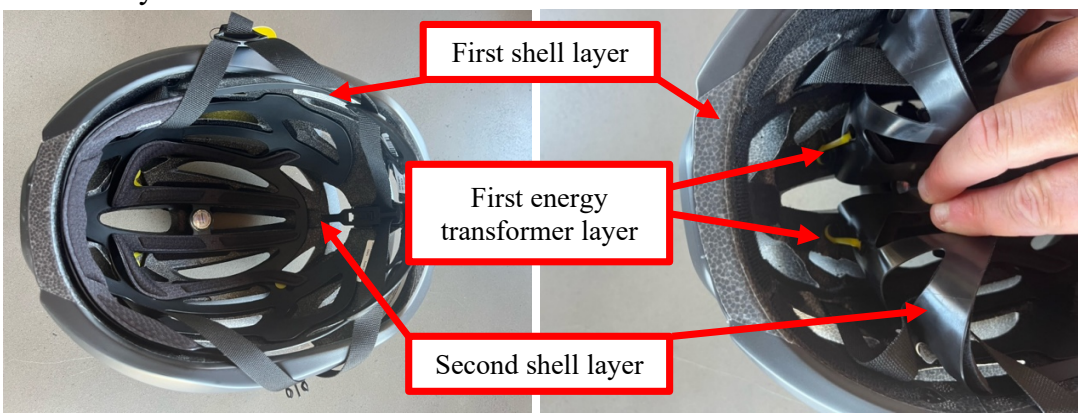


Fig. 33. Photos of the Giro Syntax Mips helmet with first shell, second shell, and first energy transformer layers labeled. Note the yellow elastic elements comprising the first energy transformer layer.

92. As a further example, on information and belief, and as seen in the figure below, each of the Giro Spherical Helmets (as exemplified by the Giro Aries Spherical helmet) includes a second shell layer connected to the first shell layer through a first energy transformer layer. On information and belief, each of the Giro Spherical Helmets includes energy transformers (seen below as yellow elastic elements) that connect the first and second shell layers.

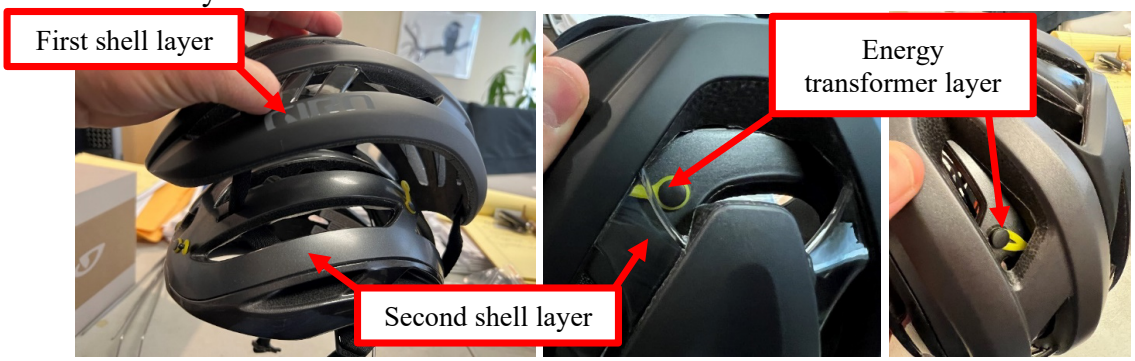


Fig. 34. Photos of Giro Aries Spherical helmet with first shell, second shell, and first energy transformer layers labeled. Note the yellow elastic elements comprising the first energy transformer layer.

93. As a further example, on information and belief, and as seen in the figures below, each of the Fox MIPS Helmets (as exemplified by the Fox Proframe RS helmet) includes a second shell layer (labeled below as "Inner liner") connected to the first shell layer through a first energy transformer layer. On information and belief, each of the Fox MIPS Helmets includes energy transformers (seen below as circular yellow elastic elements) that connect the first and second shell layers.

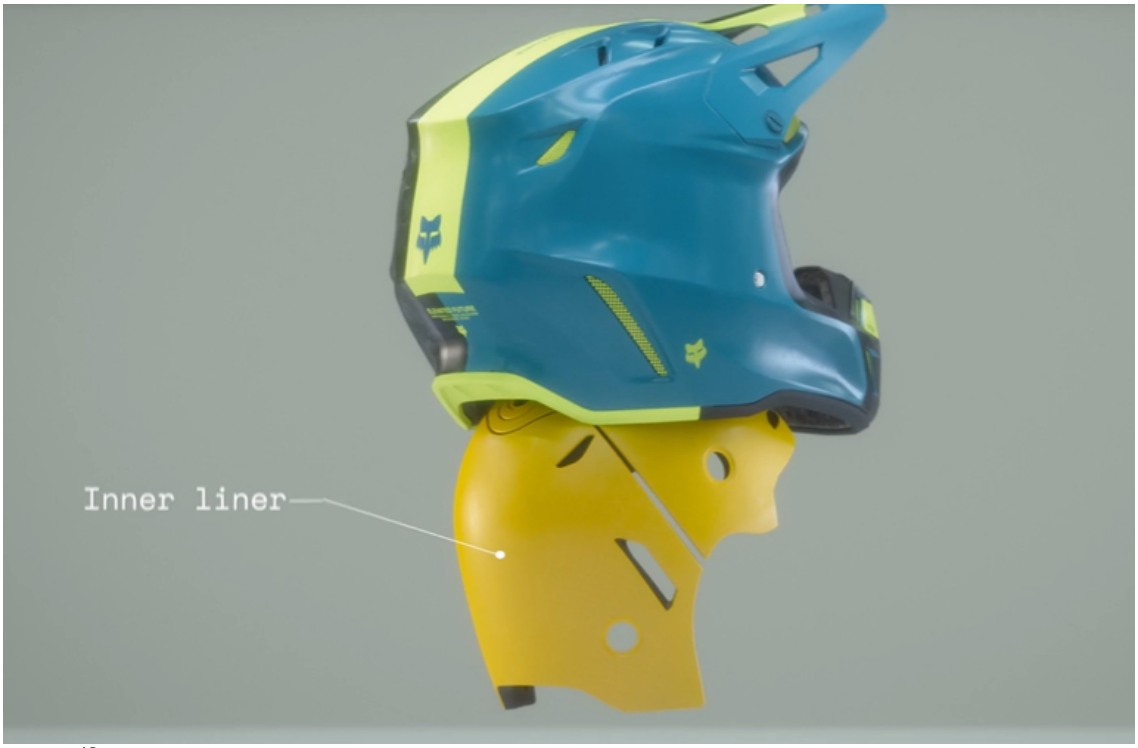


Fig. 35.[48] Screenshot of MIPS Integra Split feature incorporated into Fox Proframe RS helmets.

[48] https://www.foxracing.com/mips-integra-split.html (last visited November 26, 2024).

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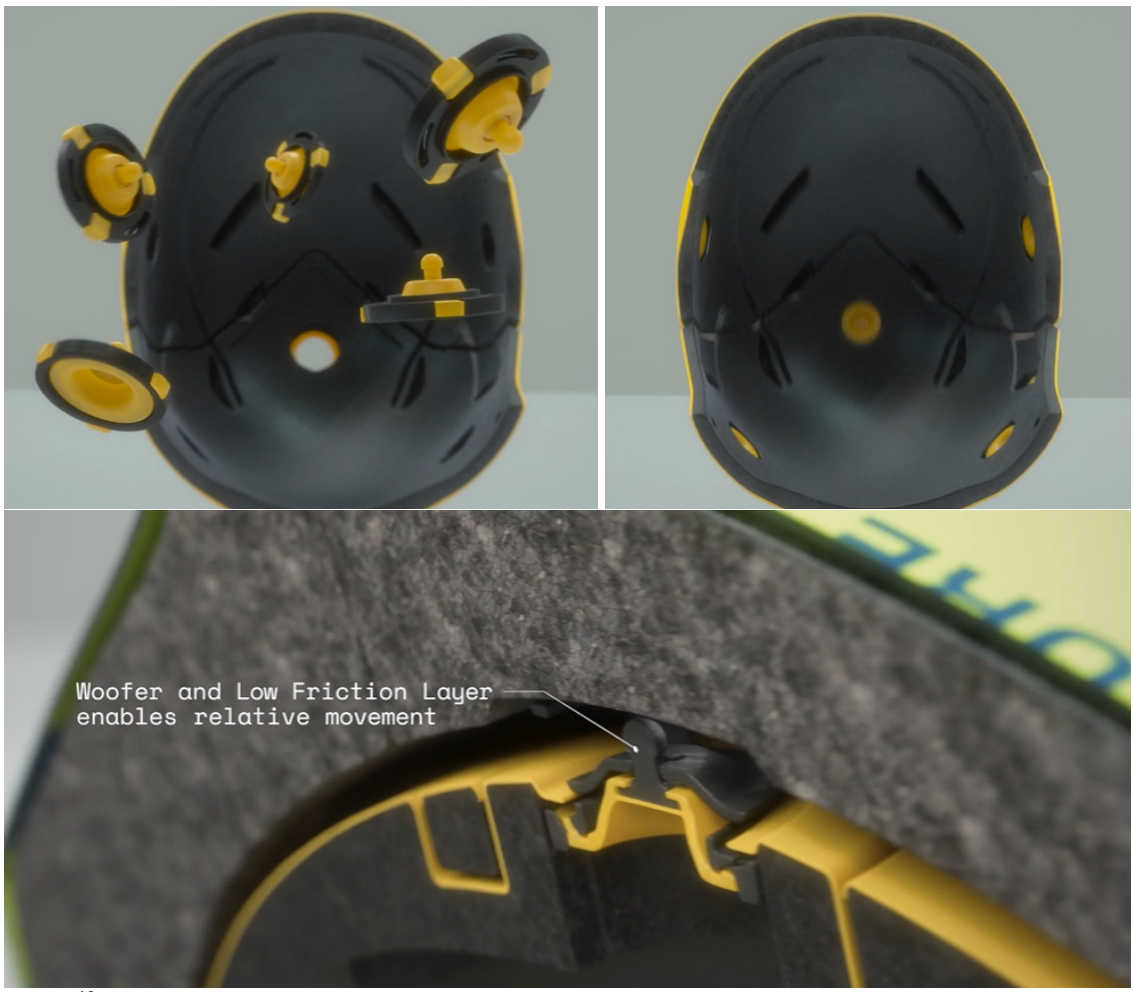


Fig. 36.[49] Screenshots from video illustrating the MIPS Integra Split feature incorporated into Fox Proframe RS helmets.

94. Thus, the Bell MIPS, Bell Spherical, Giro MIPS, Giro Spherical, and Fox MIPS Helmets satisfy limitation [10.b] of the '561 Patent.

95. Limitation [10.c] requires "the first energy transformer layer operable to absorb energy from forces imparted onto the first shell layer." On information and belief, each of the Bell MIPS, Bell Spherical, Giro MIPS, Giro Spherical, and Fox MIPS Helmets satisfies limitation [10.c].

[49] https://www.foxracing.com/mips-integra-split.html (last visited November 26, 2024).

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96. For example, on information and belief, and as seen in the figure below, each of the Bell MIPS Helmets (as exemplified by the Bell Stratus MIPS helmet) includes energy transformers operable to absorb energy from forces imparted onto the first shell layer. On further information and belief, the yellow elastic bands noted below stretch and deform upon impact to the first shell layer.

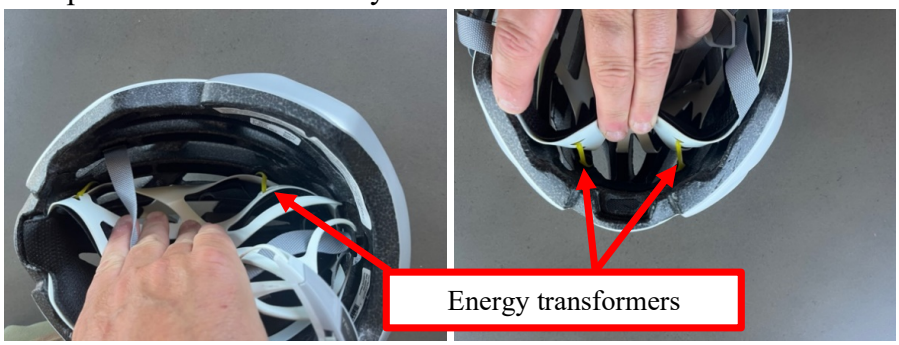


Fig. 37. Photos of the Bell Stratus MIPS helmet.

97. As a further example, on information and belief, and as seen in the figure below, each of the Bell Spherical Helmets (as exemplified by the Bell XR Spherical helmet) includes a first energy transformer layer that absorbs energy from forces imparted on the first shell layer by allowing the first shell and second shell to slide relative to one another and transferring energy to the yellow elastic elements.

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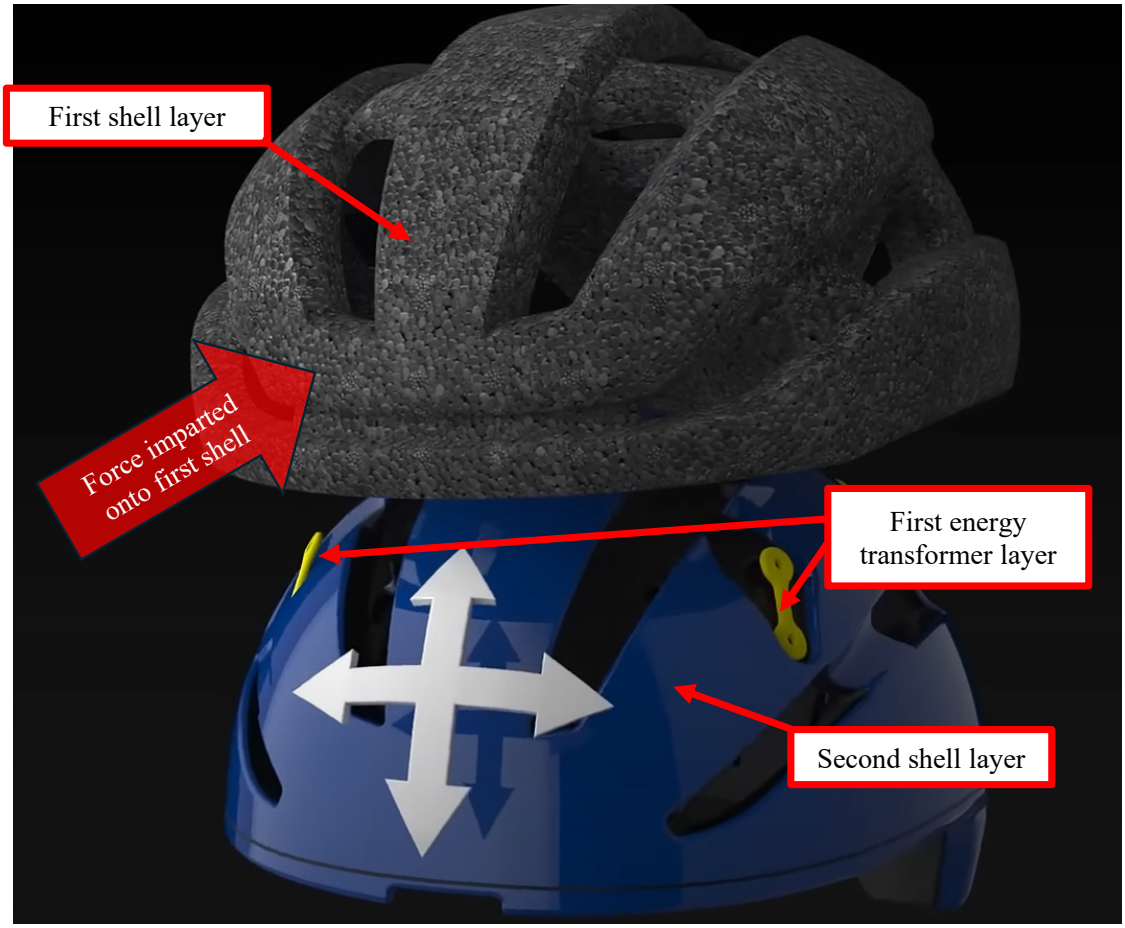


Fig. 38.[50] Screenshot of video available at the Bell XR Spherical product page with components labeled.

98. As a further example, on information and belief, and as seen in the figure below, each of the Giro MIPS Helmets (as exemplified by the Giro Syntax Mips helmet) includes energy transformers operable to absorb energy from forces imparted onto the first

[50] https://www.bellhelmets.com/bike/road-and-gravel/p/xr-spherical-road-bike-helmet/100000000300000135.html (last visited November 26, 2024)(emphasis added); *see also* https://www.youtube.com/watch?v=Vg0arb4PGt0, at 0:45-1:03 (last visited November 26, 2024) ("Spherical combines two different materials: EPS and EPP to help better manage both high and low speed impacts. The Ball-and-Socket design powered by MIPS can help redirect impact forces away from the brain by allowing the outer liner to rotate around the inner liner during a crash.").

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shell layer. On information and belief, the yellow elastic bands noted below stretch and deform upon impact to the first shell layer.

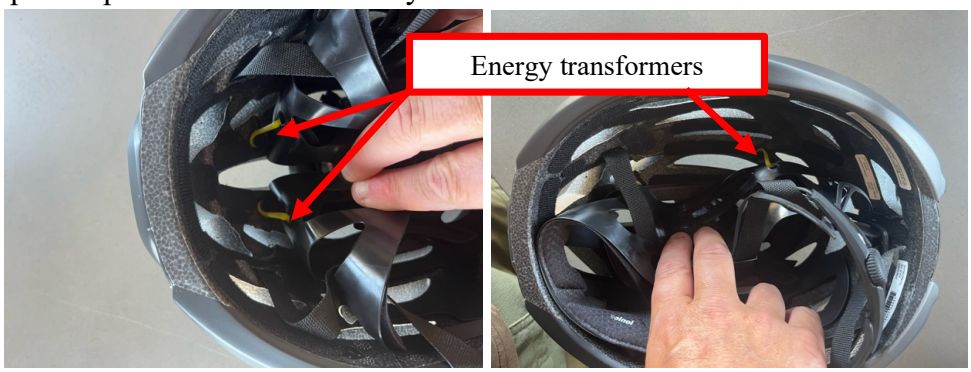


Fig. 39. Photos of the Giro Syntax Mips MIPS helmet.

99. As a further example, on information and belief, and as seen in the figure below, Defendants advertise "slip plane" technology to highlight the dangers of certain types of impacts and the ability of Giro MIPS Helmets to mitigate such dangers by "reducing the amount of rotational force that may otherwise be transferred to your brain" during impact.[51]

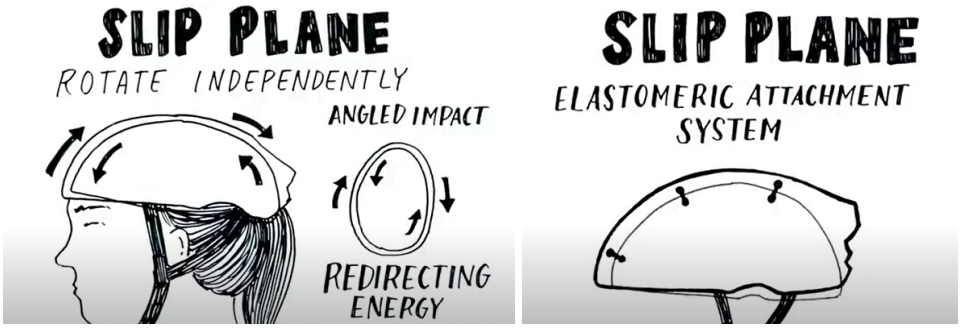


Fig. 40.[52] Screenshots of video illustrating Giro "slip plane" technology.

[51] *See*, *e.g.*, Giro Sport Design, "Mechanics of a Crash," https://www.youtube.com/watch?v=kQ9jRxOp1S0 (last visited November 26, 2024).

[52] Giro Sport Design, "Mechanics of a Crash" at 1:06 and 2:03, https://www.youtube.com/watch?v=kQ9jRxOp1S0 (last visited November 26, 2024) ("An elastomeric attachment system stretches on impact allowing the helmet liner to move. How much does it move? Just a couple millimeters. But those few millimeters of

100. As a further example, on information and belief, and as seen in the figure below, each of the Giro Spherical Helmets (as exemplified by the Giro Aries Spherical helmet) includes energy transformers operable to absorb energy from forces imparted onto the first shell layer. On information and belief, the yellow elastic bands noted below stretch and deform upon impact to the first shell layer. Note the force exerted by the thumb against the first shell layer.

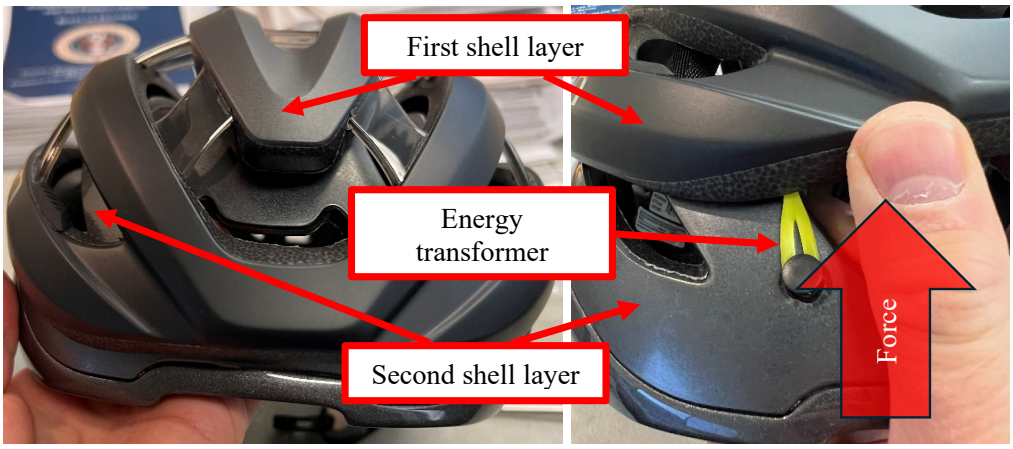


Fig. 41. Photos of testing a Giro Aries Spherical helmet. In this example, force is being applied to the first shell layer by a thumb in the direction of the red arrow.

101. As a further example, on information and belief, and as seen in the figure below, each of the Fox MIPS Helmets (as exemplified by the Fox Proframe RS helmet) includes energy transformers operable to absorb energy from forces imparted onto the first shell layer. On information and belief, the circular yellow elements depicted below stretch and deform upon impact to the first shell layer.

rotation during that crucial two milliseconds can reduce the amount of rotational force that may otherwise be transferred to your brain.").

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Fig. 42.[53] Screenshot of MIPS Integra Split feature incorporated into Fox Proframe RS helmets.

102. Thus, the Bell MIPS, Bell Spherical, Giro MIPS, Giro Spherical, and Fox MIPS Helmets satisfy limitation [10.c] of the '561 Patent.

103. Limitation [10.d] requires "wherein the first energy transformer layer includes a first absorptive/dissipative material to allow the first shell layer to slide relative to the second shell layer." On information and belief, each of the Bell MIPS, Bell Spherical, Giro MIPS, Giro Spherical, and Fox MIPS Helmets satisfies limitation [10.d].

104. For example, on information and belief, and as seen in the figure below, each of the Bell MIPS Helmets (as exemplified by the Bell Stratus MIPS helmet) includes energy transformers that are made of an elastomeric material which is an absorptive/dissipative material. On further information and belief, the energy transformers comprise a layer that allows the first shell layer to slide relative to the second shell layer.

[53] https://www.foxracing.com/mips-integra-split.html (last visited November 26, 2024).

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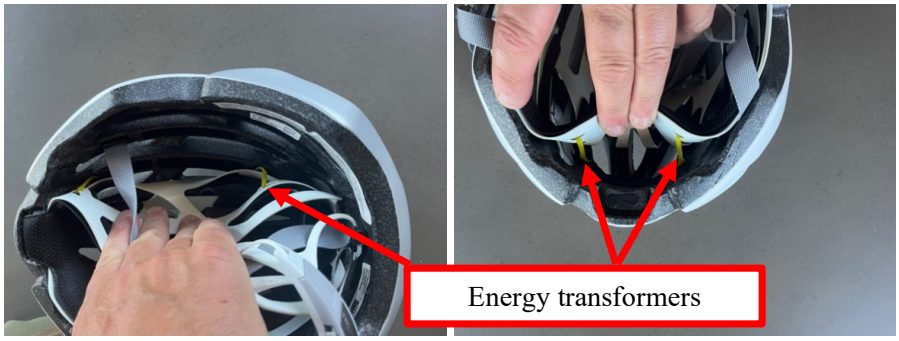


Fig. 43. Photos of the Bell Stratus MIPS helmet.

105. As a further example, and as seen in the figure below, Bell MIPS Helmets equipped with MIPS Evolve technology use "slip plane technology… designed to reduce rotational forces that can result from certain impacts" and which technology allows the first shell layer to slide relative to the second shell layer.



Fig. 44.[54] Photo of MIPS Evolve informational tag attached to a Bell Stratus MIPS helmet.

106. As a further example, on information and belief, and as seen in the figure below, each of the Bell Spherical Helmets (as exemplified by the Bell XR Spherical helmet) includes energy transformers that are made of an elastomeric material which is an absorptive/dissipative material. On further information and belief, the energy transformers

[54] *See also* https://www.bellhelmets.com/technology/mips.html (last visited November 26, 2024).

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comprise a layer that allows the first shell layer to slide relative to the second shell layer. Indeed, Defendants promote the "Ball-and-Socket" design feature which "helps to redirect impact forces away from the brain by allowing the outer liner to rotate around the inner liner during a crash."

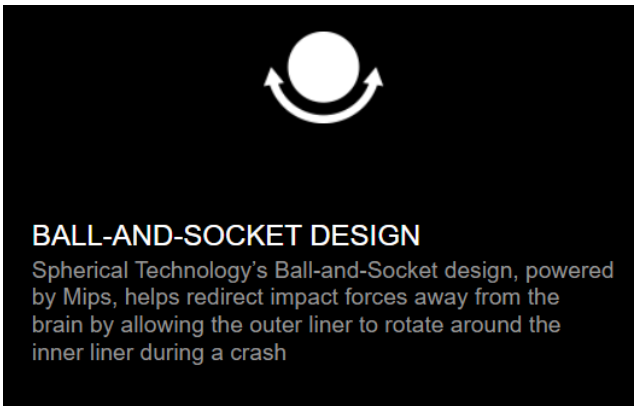


Fig. 45.[55] Screenshot of Bell Helmet Spherical Technology webpage.

107. As a further example, on information and belief, and as seen in the figure below, each of the Giro MIPS Helmets (as exemplified by the Giro Syntax Mips helmet) includes energy transformers that are comprised of absorptive/dissipative material to allow the first shell layer to slide relative to the second shell layer.

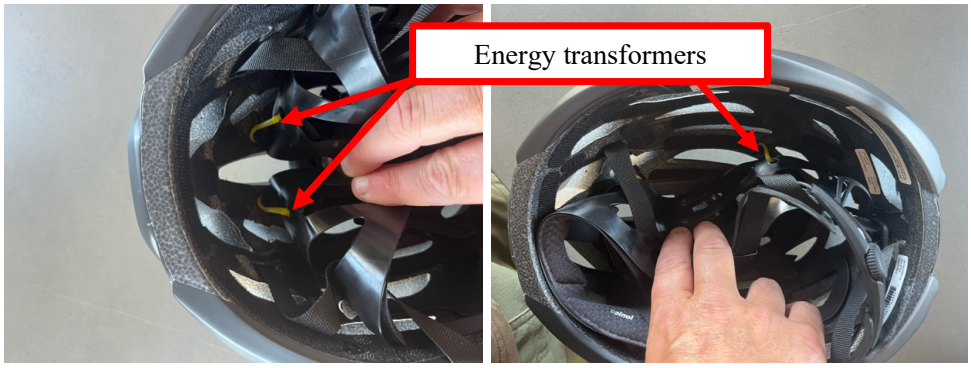


Fig. 46. Photos of the Giro Syntax Mips MIPS helmet.

[55] https://www.bellhelmets.com/technology/spherical.html (last visited November 26, 2024).

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108. As a further example, on information and belief, and as seen in the figure below, Defendants advertise "slip plane" technology to highlight the dangers of certain types of impacts and the ability of Giro MIPS Helmets to mitigate such dangers by "reducing the amount of rotational force that may otherwise be transferred to your brain" during impact.[56]

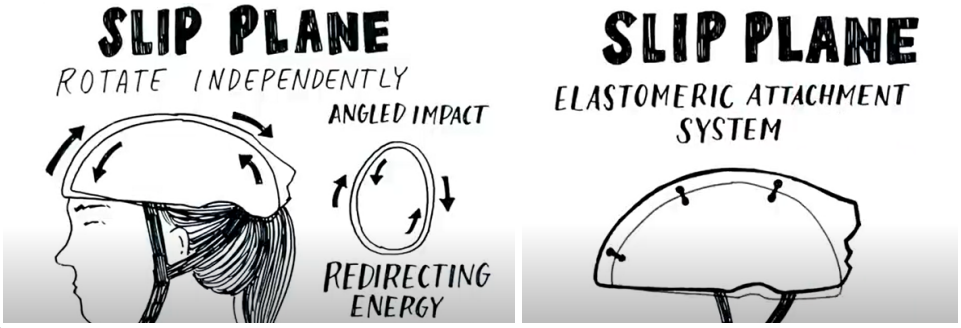


Fig. 47[57] Screenshots from a Giro Sport Design video.

109. As a further example, on information and belief, and as seen in the figure below, each of the Giro Spherical Helmets (as exemplified by the Giro Aries Spherical helmet) includes energy transformers that are comprised of absorptive/dissipative material to allow the first shell layer to slide relative to the second shell layer.

[56] *See*, *e.g.*, Giro Sport Design, "Mechanics of a Crash," https://www.youtube.com/watch?v=kQ9jRxOp1S0 (last visited November 26, 2024).

[57] Giro Sport Design, "Mechanics of a Crash" at 1:06 and 2:03, https://www.youtube.com/watch?v=kQ9jRxOp1S0 (last visited November 26, 2024) ("An elastomeric attachment system stretches on impact allowing the helmet liner to move. How much does it move? Just a couple millimeters. But those few millimeters of rotation during that crucial two milliseconds can reduce the amount of rotational force that may otherwise be transferred to your brain.").

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Fig. 48. Photos of the Giro Aries Spherical helmet. Note the yellow elastomeric energy transformer.

110. As a further example, on information and belief, and as seen in the figure below, Defendants advertise "Ball-and-Socket" technology in connection with their Spherical helmet products.

BALL-AND-SOCKET DESIGN

Spherical Technology's Ball-and-Socket design, powered by MIPS®, helps redirect impact forces away from the brain by allowing the outer liner to rotate around the inner liner during a crash. It also eliminates contact with hard plastic or slip-planes against the skin.

Fig. 49.[58] Excerpt from Giro's Spherical Technology webpage.

111. As a further example, on information and belief, and as seen in the figure below, each of the Fox MIPS Helmets (as exemplified by the Fox Proframe RS helmet) includes energy transformers that are comprised of absorptive/dissipative material to allow the first shell layer to slide relative to the second shell layer.

[58] https://www.giro.com/technology/spherical.html (last visited November 26, 2024).

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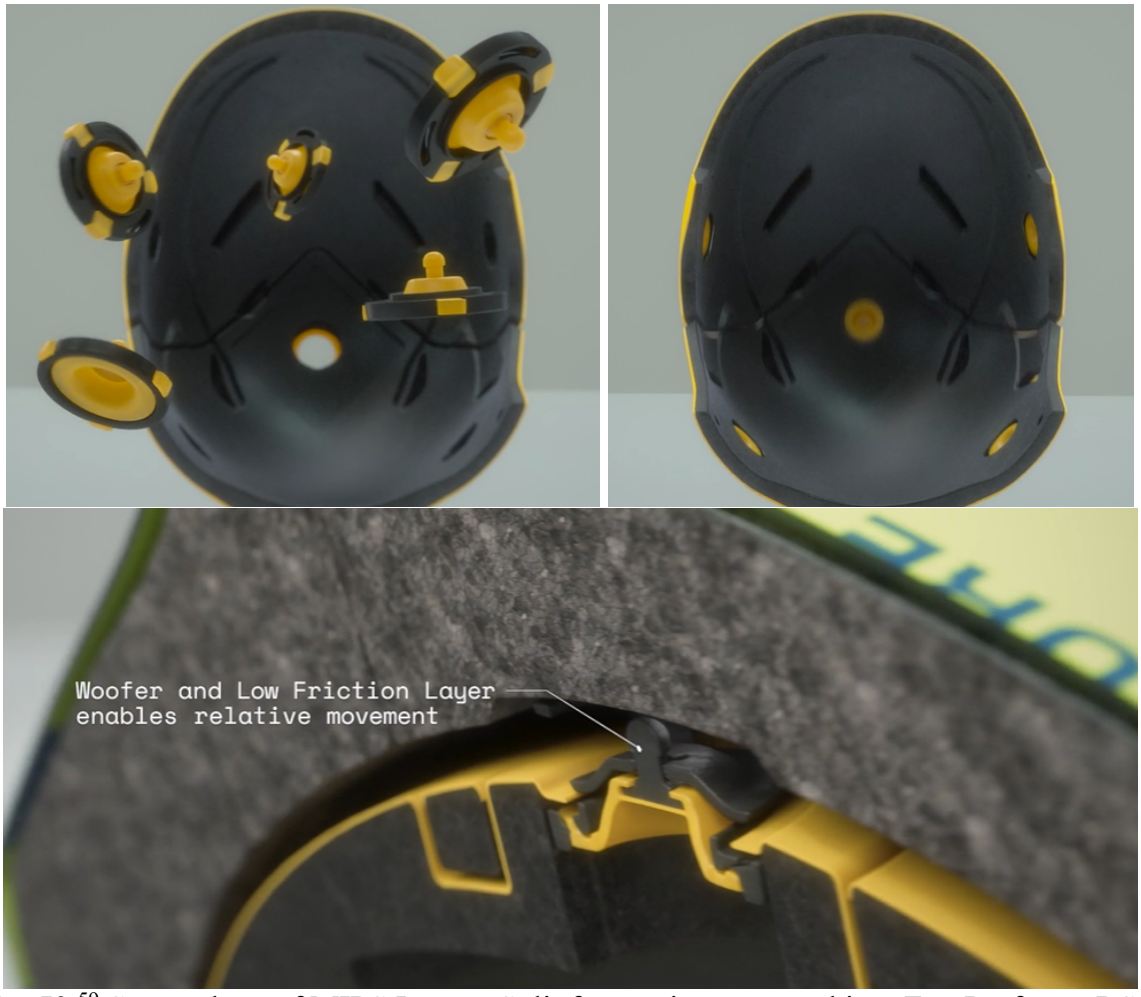


Fig. 50.[59] Screenshots of MIPS Integra Split feature incorporated into Fox Proframe RS helmets.

112. Thus, the Bell MIPS, Bell Spherical, Giro MIPS, Giro Spherical, and Fox MIPS Helmets satisfy limitation [10.d] of the '561 Patent.

113. Limitation [10.e] requires "a lining layer connected to the second shell layer, wherein the lining layer is configured to conform to a human head." On information and belief, each of the Bell MIPS, Bell Spherical, Giro MIPS, Giro Spherical, and Fox MIPS Helmets satisfies limitation [10.e].

[59] https://www.foxracing.com/mips-integra-split.html (last visited November 26, 2024).

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114. For example, on information and belief, and as seen in the figure below, each of the Bell MIPS Helmets (as exemplified by the Bell Stratus MIPS helmet) includes a lining layer connected to the second shell layer that is configured to contact a human head when worn.

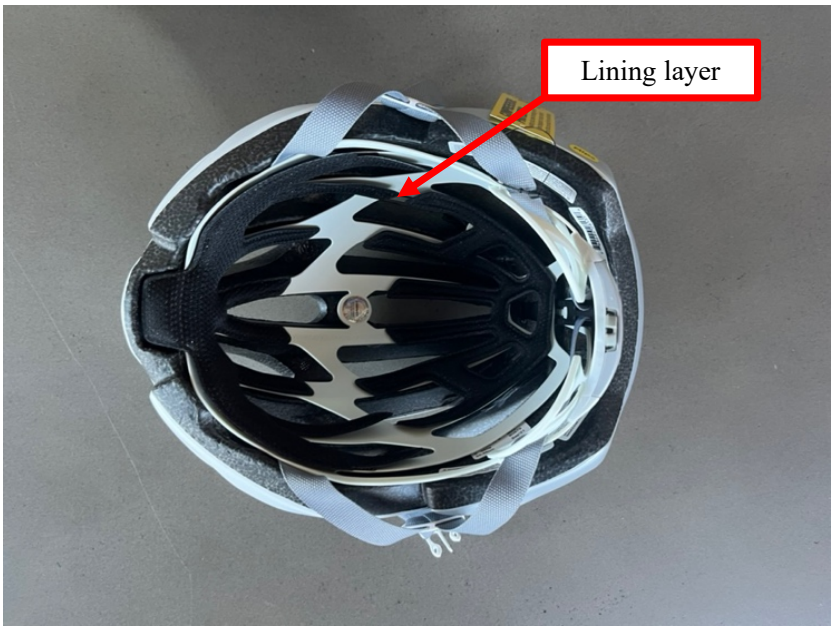


Fig. 51. Photo of a Bell Stratus MIPS helmet.

115. As a further example, on information and belief, and as seen in the figure below, each of the Bell Spherical Helmets (as exemplified by the Bell XR Spherical helmet) includes a lining layer connected to the second shell layer that is configured to contact a human head when worn.

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Fig. 52.[60] Screenshot from the Bike Rumor! review article regarding the Bell XR Spherical helmet.

116. As a further example, on information and belief, and as seen in the figure below, Defendants also promote a featured specialized lining layers present in Bell Spherical Helmets.

[60] https://bikerumor.com/review-bell-xr-spherical-gravel-adventure-helmet/ (last visited November 26, 2024).

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Fig. 53.[61] Excerpt from Bell XR Spherical helmet product webpage.

117. As a further example, on information and belief, and as seen in the figure below, each of the Giro MIPS Helmets (as exemplified by the Giro Syntax Mips helmet) includes a lining layer connected to the second shell layer that is configured to contact a human head when worn.

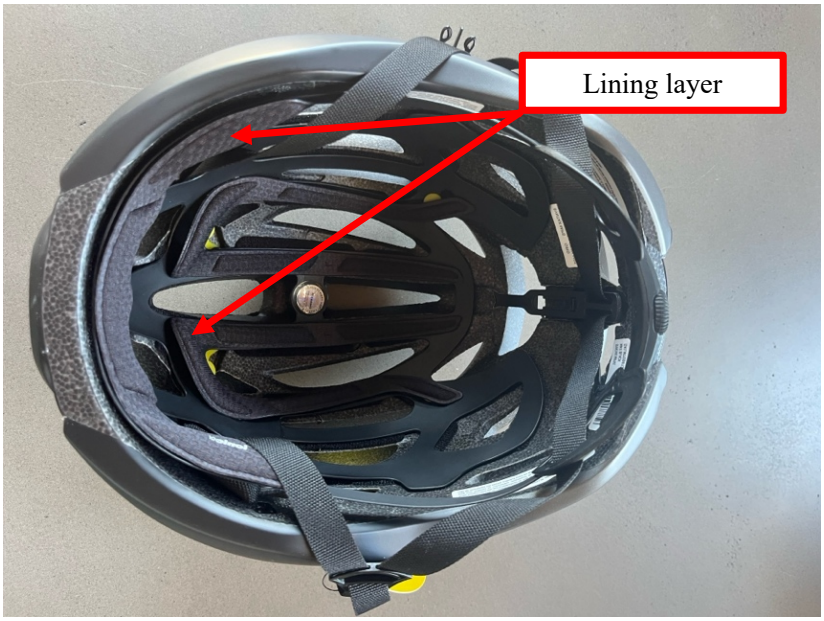


Fig. 54. Photo of a Giro Syntax Mips helmet.

[61] https://www.bellhelmets.com/bike/road-and-gravel/p/xr-spherical-road-bike-helmet/100000000300000135.html (last visited November 26, 2024).

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118. As a further example, on information and belief, and as seen in the figure below, each of the Giro Spherical Helmets (as exemplified by the Giro Aries Spherical helmet) includes a lining layer connected to the second shell layer that is configured to contact a human head when worn.

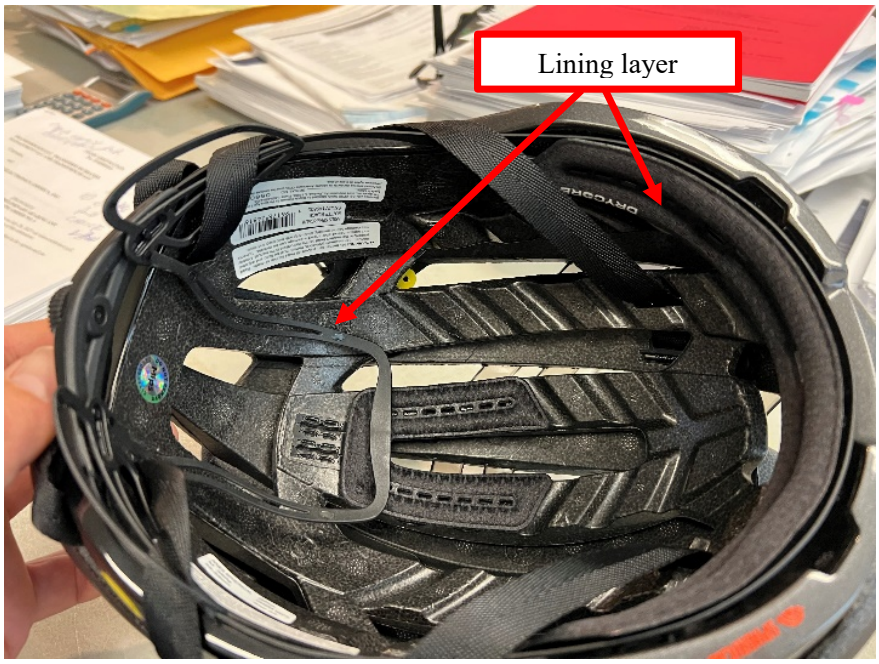


Fig. 55. Photo of a Giro Aries Spherical helmet.

119. As a further example, on information and belief, and as seen in the figures below, each of the Fox MIPS Helmets (as exemplified by the Fox Proframe RS helmet) includes a lining layer connected to the second shell layer that is configured to contact a human head when worn.

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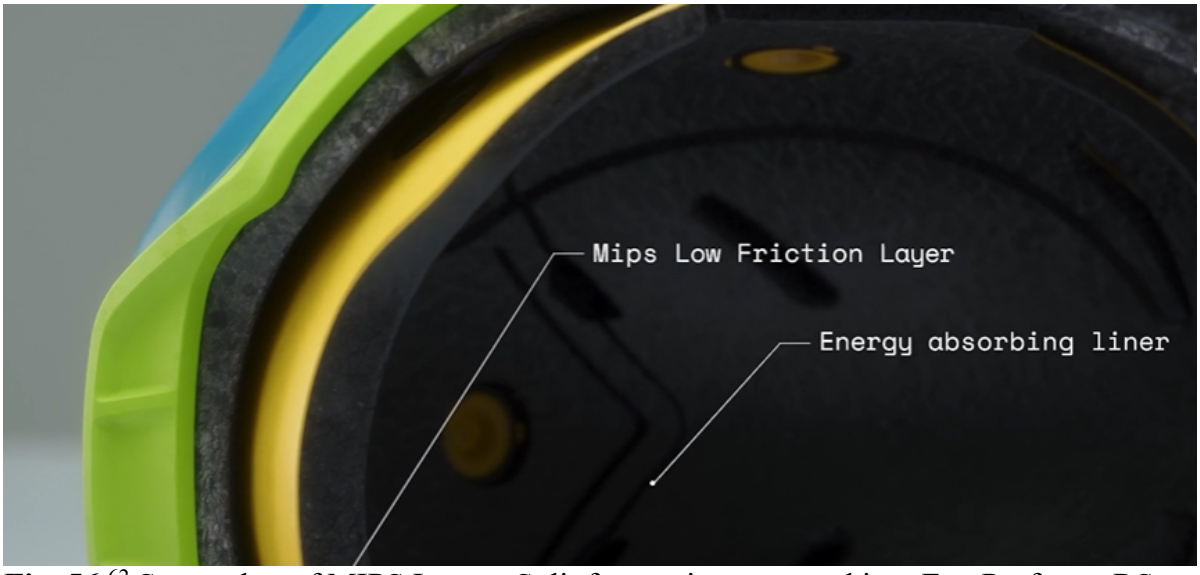


Fig. 56.[62] Screenshot of MIPS Integra Split feature incorporated into Fox Proframe RS helmets.

Specifications -

- BOA® Fit System for class-leading fit and security
- Equipped with Mips® Integra Split low friction layer
- Dual density foam for high and low speed impacts
- 3-position adjustable visor compatible with goggles
- Removable under-visor GoPro mount included
- Increased ventilation and decreased surface contact area for improve cooling
- Ionic+ anti-microbial liner to reduce odor
- Multi-sized cheek pads to optimize fit
- FIDLOCK magnetic closure system on chin strap
- Weight: 820 g (size medium)

Fig. 57.[63] List of specifications relating to the Fox Proframe RS helmet.

[62] https://www.foxracing.com/mips-integra-split.html (last visited November 26, 2024).
[63] https://www.foxracing.com/product/proframe-rs-helmet/32497.html?dwvar_32497_color=008&dwvar_32497_size=L&_gl=1*983zu4*_up*MQ..*_ga*NzI2NDA1NDc1LjE3MzMzMzkyMjI.*_ga_M8LBEVFY1P*MTczMzMz

120. Thus, the Bell MIPS, Bell Spherical, Giro MIPS, Giro Spherical, and Fox MIPS Helmets satisfy limitation [10.e] of the '561 Patent.

121. Therefore, each of the Bell MIPS, Bell Spherical, Giro MIPS, Giro Spherical, and Fox MIPS Helmets satisfies each and every limitation of claim 10 of the '561 Patent, and therefore infringes at least claim 10 of the '561 Patent.

122. At least as of the date of filing of the instant suit, Defendants have had knowledge of their infringement of the '561 Patent. Accordingly, and to the extent that Defendants continue to make, use, sell, offer to sell, and/or import any of the Bell MIPS, Bell Spherical, Giro MIPS, Giro Spherical, and/or Fox MIPS Helmets, Defendants' infringement of the '561 Patent in violation of 35 U.S.C. §§ 271 et seq. as detailed above, following the filing of the instant suit, is and continues to be willful.

123. As a result of Defendants' infringement of the '561 Patent, BrainGuard has suffered and continues to suffer substantial injury and is entitled to recover all damages caused by Defendants' infringement to the fullest extent permitted by the Patent Act, together with prejudgment interest and costs for Defendants' wrongful conduct.

THIRD CAUSE OF ACTION
(PATENT INFRINGMENT UNDER 35 U.S.C. § 271 OF THE '536 PATENT BY DEFENDANTS)

124. BrainGuard re-alleges and incorporates by reference all of the foregoing paragraphs.

125. On information and belief, Defendants have directly infringed and continue to directly infringe either literally or under the doctrine of equivalents, one or more claims, including at least claim 1 of the '536 Patent in violation of 35 U.S.C. § 271, et seq., by making, using, offering to sell, selling, and/or importing at least the Bell Spherical and Giro Spherical Helmets.

OTIyMS4xLjAuMTczMzMzOTIyMS4wLjAuNjQ2MDYxNzI3 (last visited November 26, 2024).

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126. Claim 1 of the ’536 Patent provides:

[1.preamble] Protective gear comprising:

[1.a] a first layer;

[1.b] a second layer connected to a[] first layer through a first energy transformer,

[1.c] the first energy transformer operable to absorb energy from forces imparted onto the first layer,

[1.d] wherein the first energy transformer includes a first absorptive/dissipative material to allow the first layer to slide relative to the second layer;

[1.e] a[] third layer connected to the second layer through a second energy transformer,

[1.f] the second energy transformer including a second absorptive/dissipative material,

[1.g] the second energy transformer operable to absorb energy from forces imparted onto the second layer through the first layer and the first energy transformer.

127. On information and belief, and based on publicly available information, all Bell Spherical Helmets have the same or similar technology regarding the below-identified features. On further information and belief, and based on publicly available information, the Bell XR Spherical helmet is representative of the Bell Spherical Helmets. On further information and belief, and based on publicly available information, each of the Bell Spherical Helmets functions and is structured in a manner similar, if not identical, to the Bell XR Spherical helmet as it relates to infringing the ’536 Patent. And on further information and belief, and based on publicly available information, each of the Bell Spherical Helmets possesses features and/or attributes similar, if not identical, to those

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features and/or attributes of the Bell XR Spherical helmet identified by BrainGuard as infringing the '536 Patent. Accordingly, the analysis of the Bell XR Spherical helmet that follows applies equally to each of the accused Bell Spherical Helmets.

128. On information and belief, and based on publicly available information, all Giro Spherical Helmets have the same or similar technology regarding the below-identified features. On further information and belief, and based on publicly available information, the Giro Aries Spherical helmet is representative of the Giro Spherical Helmets. On further information and belief, and based on publicly available information, each of the Giro Spherical Helmets functions and is structured in a manner similar, if not identical, to the Giro Aries Spherical helmet as it relates to infringing the '536 Patent. And on further information and belief, and based on publicly available information, each of the Giro Spherical Helmets possesses features and/or attributes similar, if not identical, to those features and/or attributes of the Giro Aries Spherical helmet identified by BrainGuard as infringing the '536 Patent. Accordingly, the analysis of the Giro Aries Spherical helmet that follows applies equally to each of the accused Giro Spherical Helmets.

129. The preamble of claim 1 requires: "[p]rotective gear." To the extent possible that the preamble of claim 1 of the '536 Patent is determined to be limiting, the Bell Spherical and Giro Spherical Helmets satisfy the preamble, as such helmets are protective gear.

130. Limitation [1.a] requires "a first layer." On information and belief, each of the Bell Spherical and Giro Spherical Helmets satisfies limitation [1.a]. As seen in the figures below, the Bell Spherical and Giro Spherical Helmets are comprised of multiple layers.

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Fig. 58.[64] Screenshot of video available at the Bell XR Spherical product page. Note the multiple layers comprising the Bell XR Spherical helmet.

[64] https://www.bellhelmets.com/bike/road-and-gravel/p/xr-spherical-road-bike-helmet/100000000300000135.html (last visited November 26, 2024); *see also* https://www.youtube.com/watch?v=Vg0arb4PGt0, at 0:44s (last visited November 26, 2024).

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Fig. 59.[65] Screenshot of one of the advertised features of the Giro Aries Spherical helmet noting that the helmet incorporates multiple layers.

131. As further seen in the figures below, each of the Bell Spherical and Giro Spherical Helmets incorporates a first layer.

[65] https://www.giro.com/p/aries-spherical-road-bike-helmet/100000000300000146.html (last visited November 26, 2024).

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Fig. 60.[66] Screenshot of video available at the Bell XR Spherical product page. Note the gray topmost layer satisfying the required "first layer" limitation of claim 1.

[66] https://www.bellhelmets.com/bike/road-and-gravel/p/xr-spherical-road-bike-helmet/100000000300000135.html (last visited November 26, 2024) (emphasis added); *see also* https://www.youtube.com/watch?v=Vg0arb4PGt0, at 0:45s (last visited November 26, 2024).

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Fig. 61. Photo of a Giro Aries Spherical helmet.

132. Thus, the Bell Spherical and Giro Spherical Helmets satisfy limitation [1.a] of the ’536 Patent.

133. Limitation [1.b] requires “a second layer connected to a[] first layer through a first energy transformer.” On information and belief, each of the Bell Spherical and Giro Spherical Helmets satisfies limitation [1.b].

134. For example, the Bell XR Spherical helmet, as seen in the figure below, satisfies limitation [1.b]. The Bell XR Spherical helmet, as previously discussed, incorporates a “first layer” (the gray component in the figure below). Further, the Bell XR Spherical helmet incorporates a “second layer” (the blue component in the figure below). Lastly, the Bell XR Spherical helmet incorporates a “first energy transformer” connecting the first and second layers, which is comprised of the low-friction elastic band interface

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(the yellow elastic elements in the figure below) between the shells that allows them to rotate relative to one another during impact.

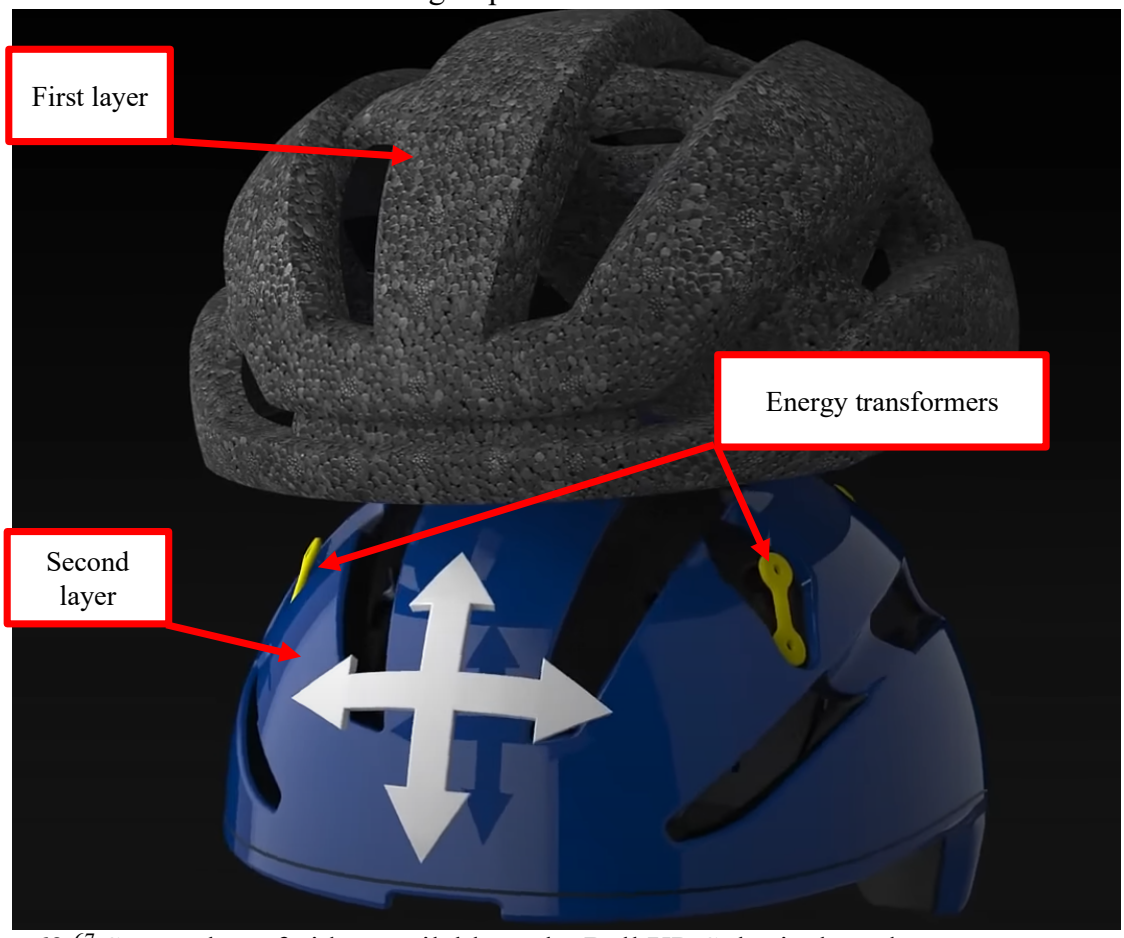


Fig. 62.[67] Screenshot of video available at the Bell XR Spherical product page.

135. As a further example, the figure below demonstrates the Bell XR Spherical helmet as commercially sold, with the first and second layers and energy transformers visible.

[67] https://www.bellhelmets.com/bike/road-and-gravel/p/xr-spherical-road-bike-helmet/100000000300000135.html (last visited November 26, 2024)(emphasis added); *see also* https://www.youtube.com/watch?v=Vg0arb4PGt0, at 0:45s (last visited November 26, 2024).

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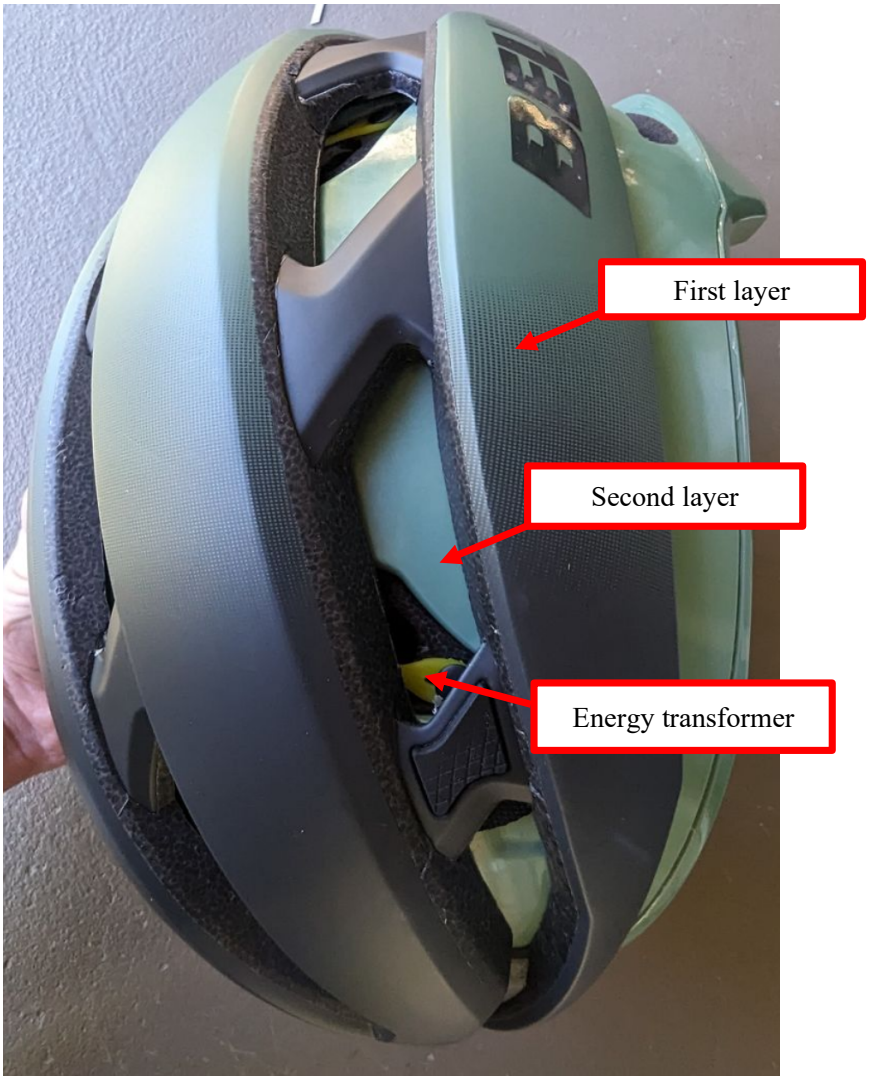


Fig. 63. Photo of Bell XR Spherical helmet with first and second layers and energy transformer marked.

136. As a further example, the Giro Aries Spherical Helmet also satisfies limitation [1.b]. As seen and marked in the figure below, the Giro Aries Spherical helmet incorporates a "first layer." Further, as seen and marked in the figure below, the Giro Aries Spherical helmet incorporates a "second layer." Lastly, the Giro Aries Spherical helmet incorporates "energy transformers" connecting the outer and middle layers, which is comprised of the

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low-friction elastic band interface (the yellow elastic elements in the figure below) between the first and second layers that allows them to rotate relative to one another during impact.

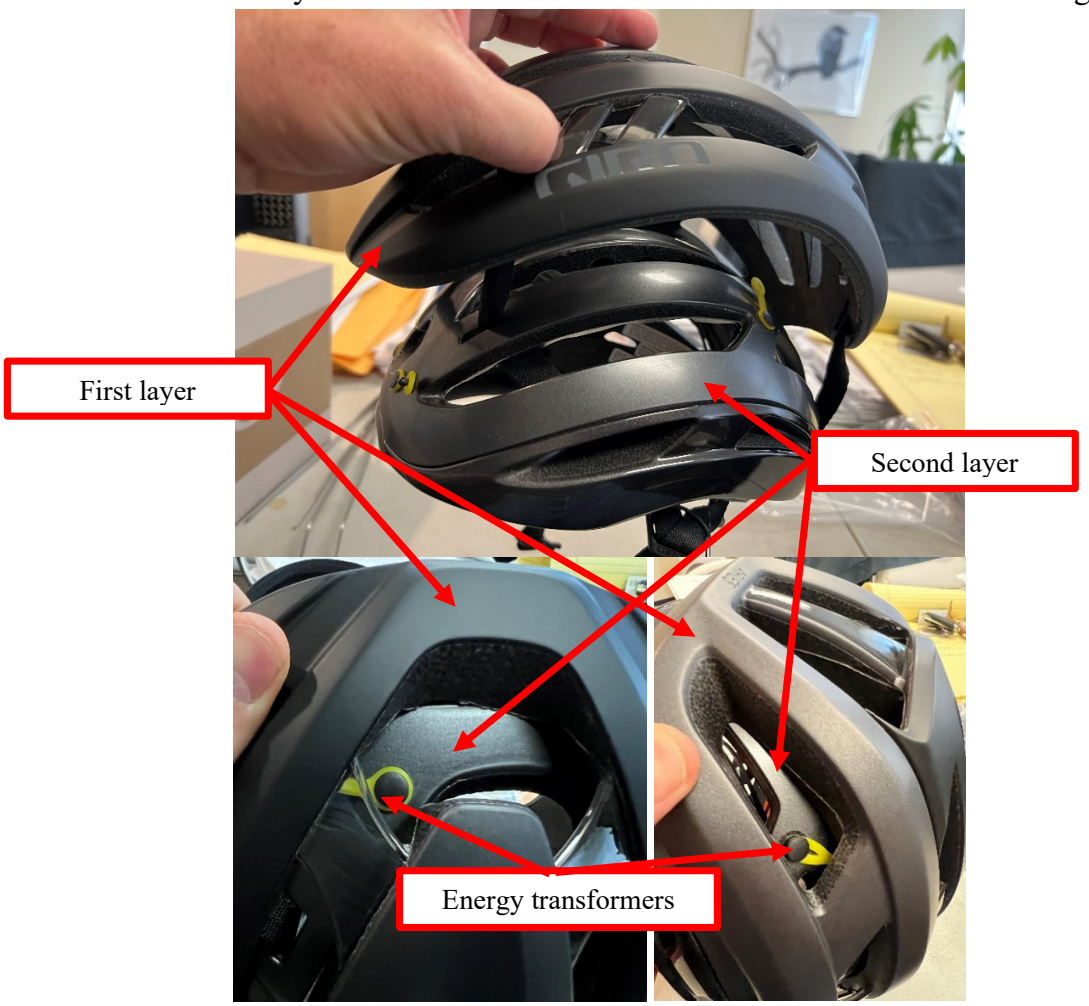


Fig. 64. Photos of the Giro Aries Spherical helmet with first and second layers and energy transformers marked.

137. Thus, the Bell Spherical and Giro Spherical Helmets satisfy limitation [1.b] of the ’536 Patent.

138. Limitation [1.c] requires “the first energy transformer operable to absorb energy from forces imparted onto the first layer.” On information and belief, each of the Bell Spherical and Giro Spherical Helmets satisfies limitation [1.c].

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139. For example, the Bell XR Spherical helmet, as seen in the figure below, satisfies limitation [1.c]. On information and belief, the first energy transformers (the yellow elastic elements) absorb energy from forces imparted on the first layer (e.g., the large red arrow indicating a frontal impact) by allowing the first and second layers to slide relative to each other and transferring energy to the elastic bands.

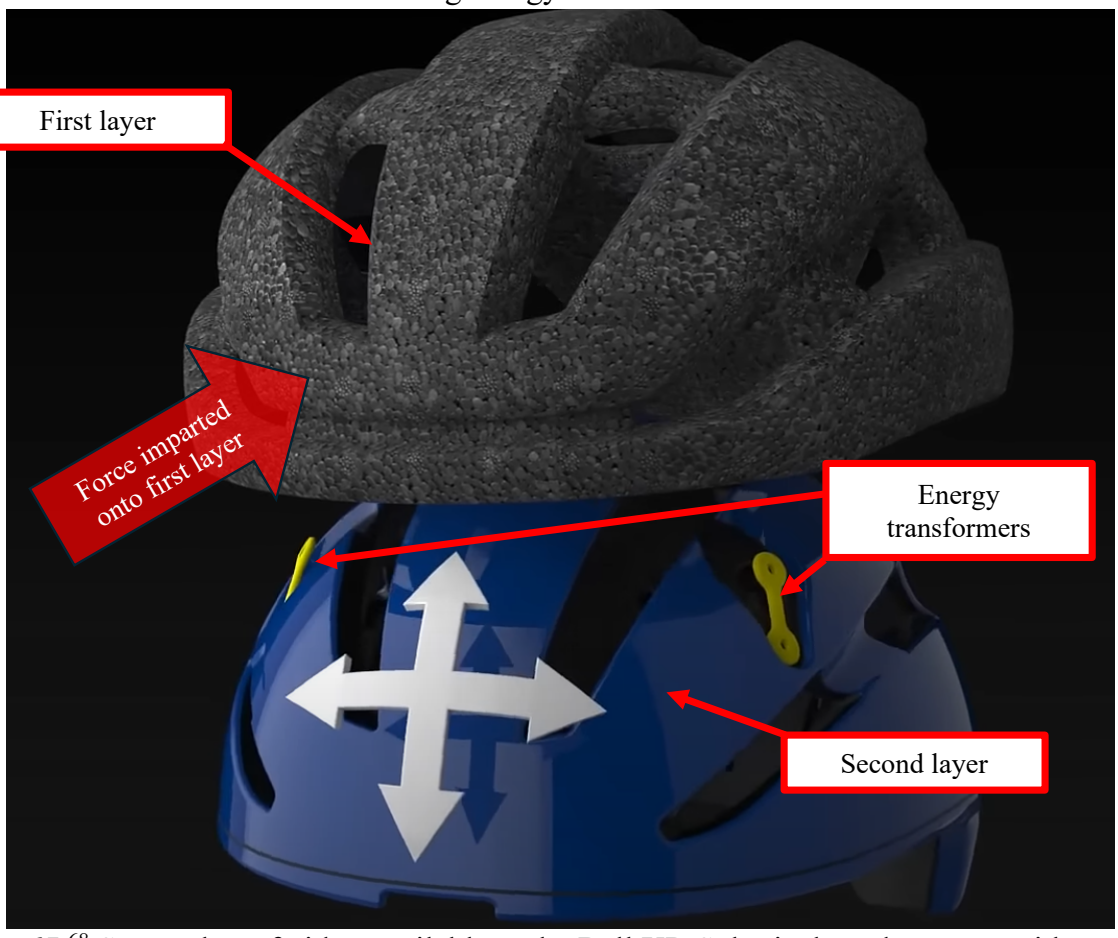


Fig. 65.[68] Screenshot of video available at the Bell XR Spherical product page with components labeled.

[68] https://www.bellhelmets.com/bike/road-and-gravel/p/xr-spherical-road-bike-helmet/100000000300000135.html (last visited November 26, 2024)(emphasis added); *see also* https://www.youtube.com/watch?v=Vg0arb4PGt0, at 0:45-1:03 (last visited November 26, 2024).

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140. On further information and belief, Defendants advertise that "Spherical combines two different materials—EPS and EPP—to better manage both high and low speed impacts. The Ball-and-Socket design powered by MIPS can help redirect impact forces away from the brain by allowing the outer liner to rotate around the inner liner during a crash."[69]

141. On further information and belief, the Giro Aries Spherical helmet also satisfies limitation [1.c]. The figure below demonstrates that the energy transformer (the yellow elastic element) allows the first and second layers to slide relative to one another when a force is imparted on the first layer. Testing by BrainGuard of the commercially-available Giro Aries Spherical helmet confirmed that applying a force on the first layer of a Giro Aries Spherical helmet allowed the energy transformer to absorb energy from a mechanical force imparted onto the first layer (here, applied via pressure from a user's thumb).

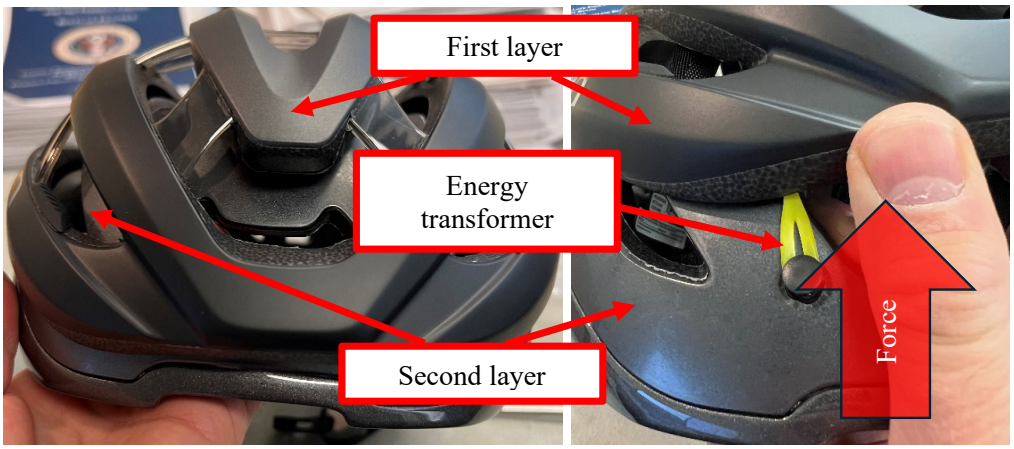


Fig. 66. Photos of testing a Giro Aries Spherical helmet. In this example, force is applied to the first layer by a thumb in the direction of the red arrow.

[69] https://www.bellhelmets.com/bike/road-and-gravel/p/xr-spherical-road-bike-helmet/100000000300000135.html (last visited November 26, 2024); *see also* https://www.youtube.com/watch?v=Vg0arb4PGt0, at 0:45-1:03 (last visited November 26, 2024).

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142. Thus, the Bell Spherical and Giro Spherical Helmets satisfy limitation [1.c] of the '319 Patent.

143. Limitation [1.d] requires "wherein the first energy transformer includes a first absorptive/dissipative material to allow the first layer to slide relative to the second layer." On information and belief, each of the Bell Spherical and Giro Spherical Helmets satisfies limitation [1.d]. On further information and belief, the energy transformers in the Bell Spherical and Giro Spherical are comprised of an elastomeric (i.e., absorptive/dissipative) material. As previously discussed in connection with at least limitation [1.c] herein, each of the Bell Spherical and Giro Spherical Helmets allows the first and second layers to slide relative to each other during impact via the energy transformers.

144. As a further example, and as seen below, Defendants advertise the Ball-and-Socket design in connection with Bell Spherical Helmets.

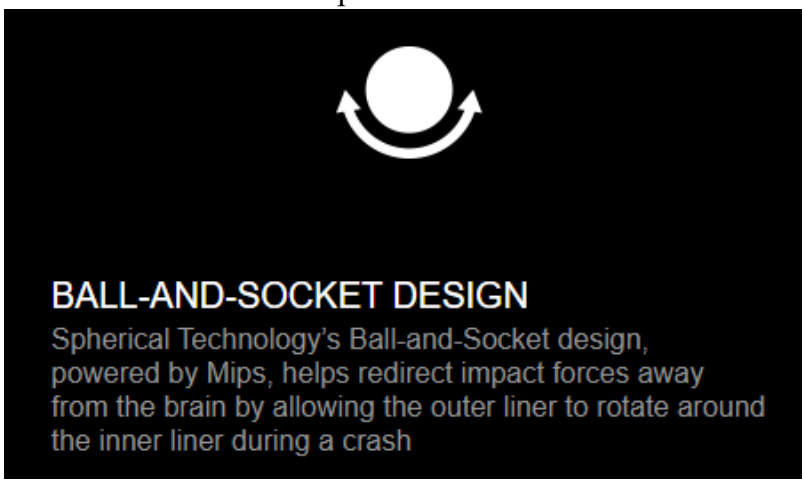


Fig. 67.[70] Screenshot of Bell Helmet Spherical Technology webpage.

145. As a further example, and as seen below, Defendants advertise the Ball-and-Socket design in connection with Giro Spherical Helmets.

[70] https://www.bellhelmets.com/technology/spherical.html (last visited November 26, 2024).

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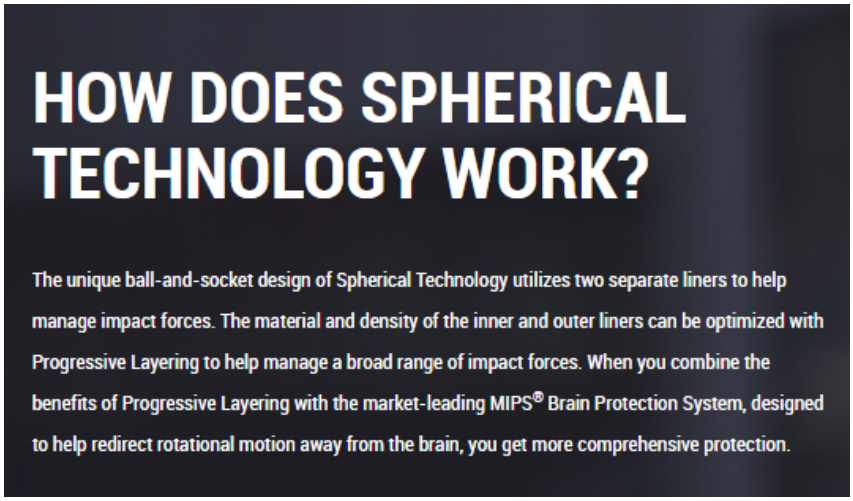


Fig. 68.[71] Excerpts of Giro's Spherical Technology webpage.

146. Thus, the Bell Spherical and Giro Spherical Helmets satisfy limitation [1.d] of the '536 Patent.

147. Limitation [1.e] requires "a[] third layer connected to the second layer through a second energy transformer." On information and belief, each of the Bell Spherical and Giro Spherical Helmets satisfies limitation [1.e]. For example, the Bell XR Spherical helmet includes a third layer connected to the second layer through a second energy transformer, as depicted in the figure below.

[71] https://www.giro.com/technology/spherical.html (last visited November 26, 2024).

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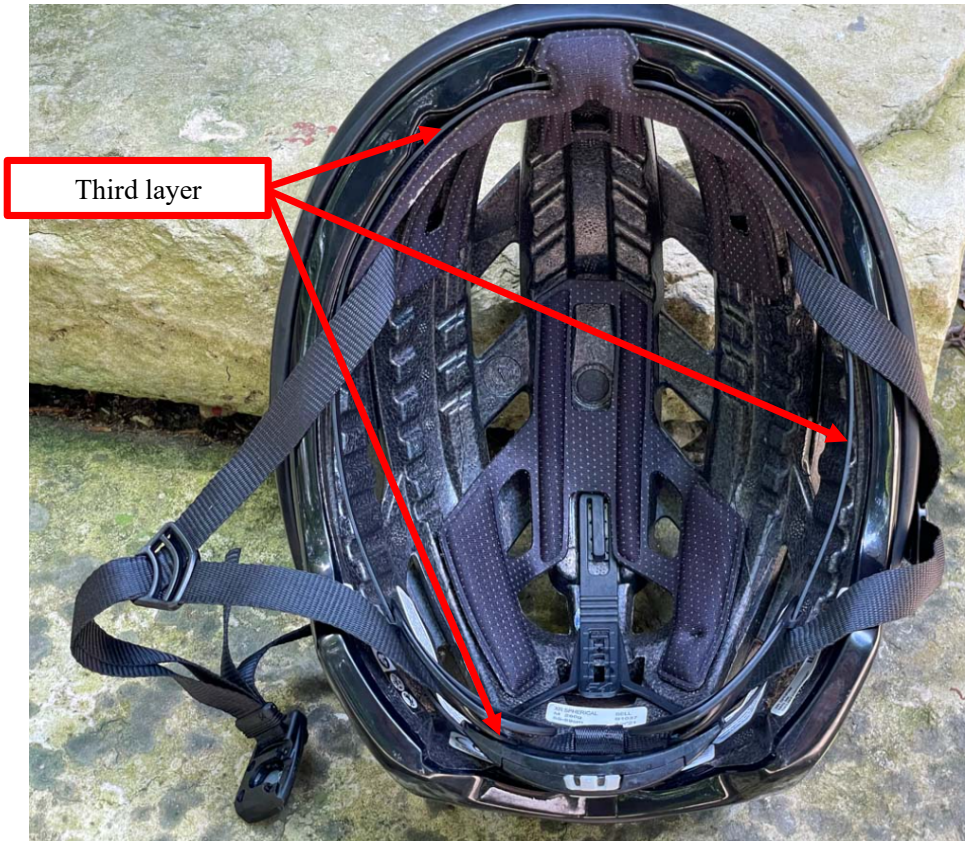


Fig. 69.[72] Screenshot from the Bike Rumor! review article regarding the Bell XR Spherical helmet.

148. Testing of the Bell XR Spherical helmet confirmed the presence of a third layer connected to the second layer through a second energy transformer, as seen in the figures below.

[72] https://bikerumor.com/review-bell-xr-spherical-gravel-adventure-helmet/ (last visited November 26, 2024).

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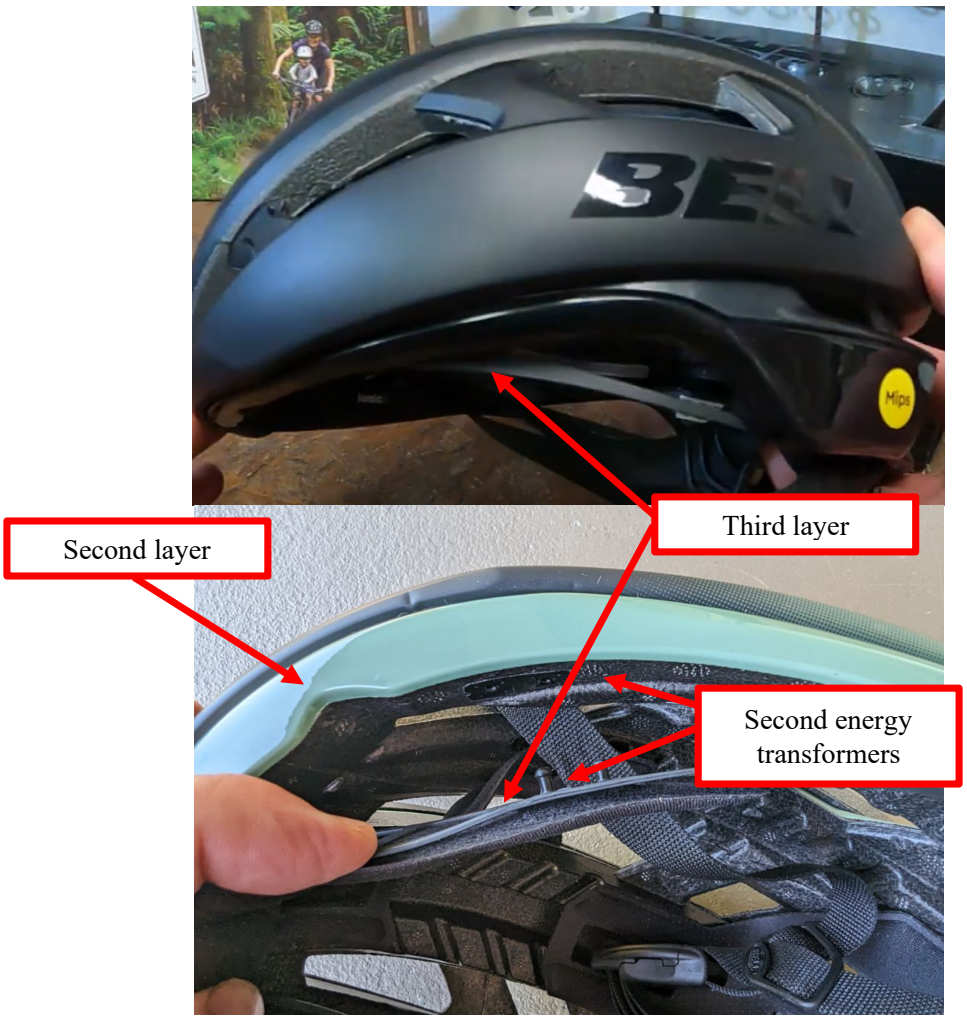


Fig. 70. Photos of the Bell XR Spherical helmet. The bottom photo depicts the third layer disconnected from the second layer to show the connection mechanism.

149. As a further example, the Giro Aries Spherical helmet includes a third layer connected to the second layer through a second energy transformer, as depicted in the figure below.

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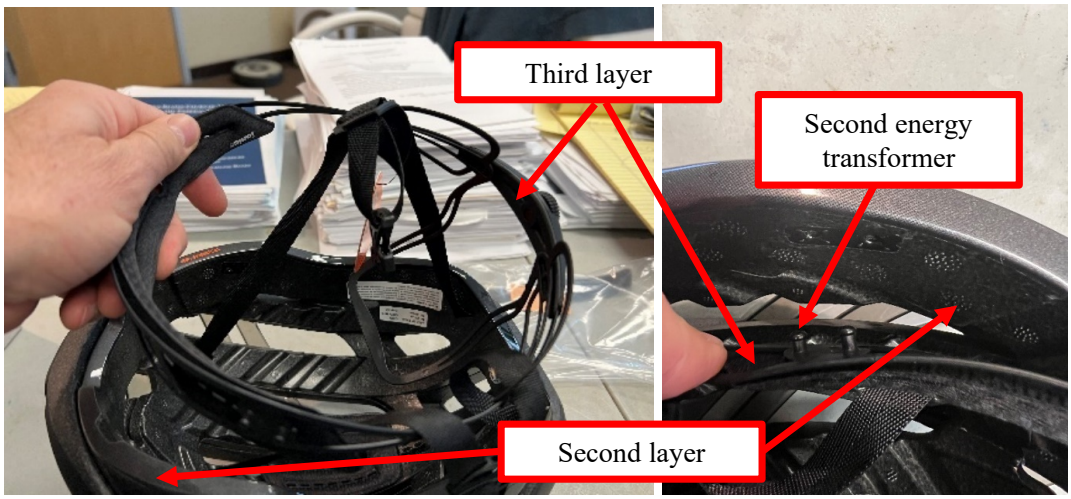


Fig. 71. Photos of the Giro Aries Spherical helmet showing the third layer (disconnected from second layer for illustration) (at left) and a close-up of the disconnected third and second layers (at right) to show the connection mechanism (the second energy transformer).

150. Thus, the Bell Spherical and Giro Spherical Helmets satisfy limitation [1.e] of the '536 Patent.

151. Limitation [1.f] requires "the second energy transformer including a second absorptive/dissipative material." On information and belief, each of the Bell Spherical and Giro Spherical Helmets satisfies limitation [1.f]. For example, based on information and belief and as depicted in the figure below, the Bell XR Spherical helmet incorporates second energy transformers that includes both absorptive/dissipative material in the second layer (e.g., the gray compressible material) to which the third shell layer is attached, as well as absorptive/dissipative material in the flexible attachment between the second and third layers.

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Fig. 72. Photo of the Bell XR Spherical helmet's second and third layers shown disconnected from one another to illustrate the connection mechanism.

152. As a further example, the Giro Aries Spherical helmet includes a second energy transformer that includes at least the flexible attachment between the second and third layers, as depicted in the figure below.

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Fig. 73. Close-up photo of Giro Aries Spherical showing the disconnected second and third layers to illustrate the connection mechanism.

153. On further information and belief, and as depicted in the figure below, the second energy transformer also includes at least the compressible material in the second layer to which the third layer is attached.

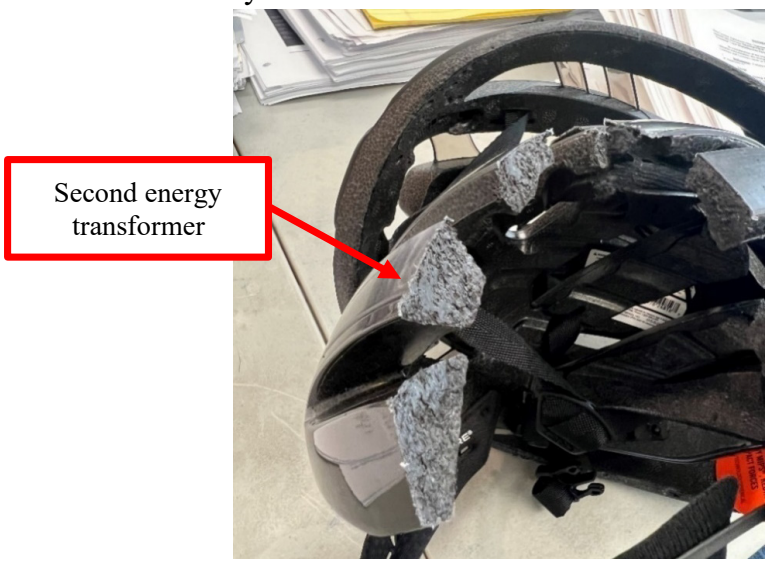


Fig. 74. Photo of cross-section of the Giro Aries Spherical helmet. Note the compressible material comprising the second layer.

154. Thus, the Bell Spherical and Giro Spherical Helmets satisfy limitation [1.f] of the '536 Patent.

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155. Limitation [1.g] requires "the second energy transformer operable to absorb energy from forces imparted onto the second layer through the first layer and the first energy transformer." On information and belief, each of the Bell Spherical and Giro Spherical Helmets satisfies limitation [1.g].

156. For example, based on information and belief and as depicted in the figure below, the Bell XR Spherical helmet is advertised by Defendants to "help[] redirect impact forces away from the brain by allowing the outer liner to rotate around the inner liner during a crash."[73] Further, Defendants advertise that "[t]he Ball-and-Socket design powered by MIPS can help redirect impact forces away from the brain by allowing the outer liner to rotates around the inner liner during a crash."[74] On information and belief, the second energy transformers of the Bell XR Spherical helmet will deform to absorb energy from forces imparted on the second layer through the first layer and first energy transformer. On further information and belief, the third layer will slide relative to the second shell layer due to the deformation of the second energy transformers layer on impact.

[73] *See*, *e.g.*, https://www.bellhelmets.com/technology/spherical.html (last visited November 26, 2024).

[74] *See*, *e.g.*, https://www.bellhelmets.com/technology/spherical.html (last visited November 26, 2024); *see also* https://www.youtube.com/watch?v=Vg0arb4PGt0, at 0:45-1:03 (last visited November 26, 2024).

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Fig. 75. Photo of the Bell XR Spherical second and third shells shown disconnected from one another to illustrate the connection mechanism (the second energy transformer).

157. As a further example, and based on information and belief, the Giro Aries Spherical helmet includes a second energy transformer that allows the second layer to slide relative to the third layer. On information and belief, the second energy transformer of the Giro Aries Spherical helmet will deform to absorb energy from forces imparted on the second layer through the first layer and first energy transformer. On information and belief, the third layer will slide relative to the second layer due to the deformation of the second energy transformer on impact.

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Fig. 76. Close-up photo of Giro Aries Spherical showing the disconnected second and third layers to illustrate the connection mechanism (the second energy transformer).

158. As a further example, Defendants advertise that Giro Spherical Helmets incorporate "Ball-and-Socket design, powered by MIPS®, [which] helps redirect impact forces away from the brain by allowing the outer liner to rotate around the inner liner during a crash. It also eliminates contact with hard plastic or slip-planes against the skin."[75]

159. Thus, the Bell Spherical and Giro Spherical Helmets satisfy limitation [1.g] of the '536 Patent.

160. Therefore, each of the Bell Spherical and Giro Spherical Helmets satisfies each and every limitation of claim 1 of the '536 Patent, and therefore infringes at least claim 1 of the '536 Patent.

161. At least as of the date of filing of the instant suit, Defendants have had knowledge of their infringement of the '536 Patent. Accordingly, and to the extent that Defendants continue to make, use, sell, offer to sell, and/or import any of the Bell Spherical or Giro Spherical Helmets, Defendants' infringement of the '536 Patent in violation of 35 U.S.C. §§ 271 et seq. as detailed above, following the filing of the instant suit, is and continues to be willful.

[75] https://www.giro.com/technology/spherical.html (last visited November 26, 2024).

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162. As a result of Defendants' infringement of the '536 Patent, BrainGuard has suffered and continues to suffer substantial injury and is entitled to recover all damages caused by Defendants' infringement to the fullest extent permitted by the Patent Act, together with prejudgment interest and costs for Defendants' wrongful conduct.

FOURTH CAUSE OF ACTION
(PATENT INFRINGMENT UNDER 35 U.S.C. § 271 OF THE '635 PATENT BY DEFENDANTS)

163. BrainGuard re-alleges and incorporates by reference all of the foregoing paragraphs.

164. On information and belief, Defendants have directly infringed and continue to directly infringe either literally or under the doctrine of equivalents, one or more claims, including at least claim 9 of the '635 Patent in violation of 35 U.S.C. § 271, et seq., by making, using, offering to sell, selling, and/or importing at least the Bell MIPS and Giro MIPS Helmets.

165. Claim 9 of the '635 Patent provides:

[9.preamble] Protective gear comprising:

[9.a] an outer shell layer;

[9.b] an inner conforming layer connected to the outer shell layer through a shear mechanism allowing the outer shell layer to slide relative to the inner conforming layer,

[9.c] wherein the shear mechanism includes a first energy transformer having a first absorptive/dissipative material,

[9.d] the inner conforming layer configured to conform to a human head;

[9.e] a chin strap attached to the inner conforming layer to maintain the position of the inner conforming layer on the human head during rotational force impact while the outer shell layer is allowed to slide.

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166. On information and belief, Defendants design, make, offer for sale, sell, and/or import Bell MIPS and Giro MIPS Helmets that meet each and every limitation of at least claim 9 of the ’635 Patent as stated below.

167. On information and belief, and based on publicly available information, all Bell MIPS Helmets have the same or similar technology regarding the below-identified features. On further information and belief, and based on publicly available information, the Bell Stratus MIPS helmet is representative of the Bell MIPS Helmets. On further information and belief, and based on publicly available information, each of the Bell MIPS Helmets functions and is structured in a manner similar, if not identical, to the Bell Stratus MIPS helmet as it relates to infringing the ’635 Patent. And on further information and belief, and based on publicly available information, each of the Bell MIPS Helmets possesses features and/or attributes similar, if not identical, to those features and/or attributes of the Bell Stratus MIPS helmet identified by BrainGuard as infringing the ’635 Patent. Accordingly, the analysis of the Bell Stratus MIPS helmet that follows applies equally to each of the accused Bell MIPS Helmets.

168. On information and belief, and based on publicly available information, all Giro MIPS Helmets have the same or similar technology regarding the below-identified features. On further information and belief, and based on publicly available information, the Giro Syntax Mips helmet is representative of the Giro MIPS Helmets. On further information and belief, and based on publicly available information, each of the Giro MIPS Helmets functions and is structured in a manner similar, if not identical, to the Giro Syntax Mips helmet as it relates to infringing the ’635 Patent. And on further information and belief, and based on publicly available information, each of the Giro MIPS Helmets possesses features and/or attributes similar, if not identical, to those features and/or attributes of the Giro Syntax Mips helmet identified by BrainGuard as infringing the ’635 Patent. Accordingly, the analysis of the Giro Syntax Mips helmet that follows applies equally to each of the accused Giro MIPS Helmets.

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169. The preamble of claim 9 requires: "[p]rotective gear." To the extent possible that the preamble of claim 9 of the '635 Patent is determined to be limiting, the Bell MIPS and Giro MIPS Helmets satisfy the preamble, as such helmets are protective gear.

170. Limitation [9.a] requires "an outer shell layer." On information and belief, each of the Bell MIPS and Giro MIPS Helmets satisfies limitation [9.a]. For example, based on information and belief and as depicted in the figures below, the Bell Stratus MIPS and Giro Syntax Mips helmets include a first shell layer.

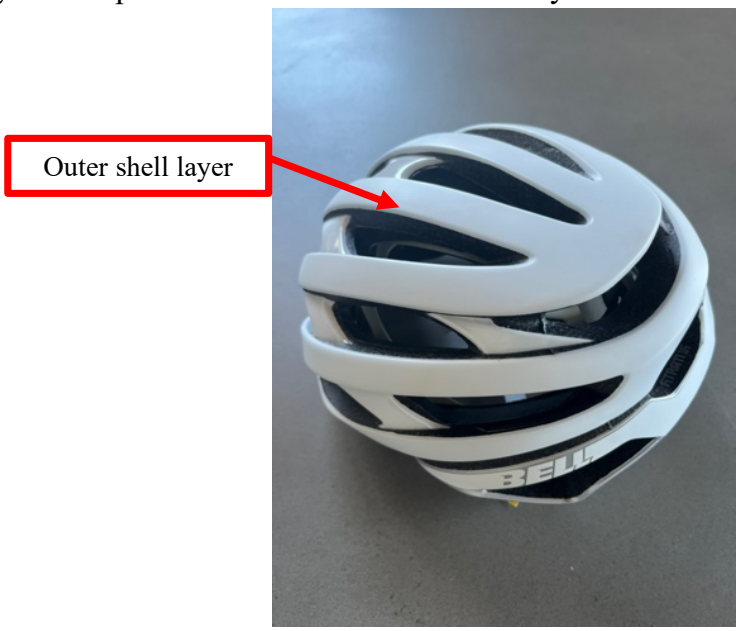


Fig. 77.[76] Photo of the Bell Stratus MIPS helmet.

[76] *See also* https://www.bellhelmets.com/bike/p/stratus-mips-road-bike-helmet/100000000300000063.html (last visited November 26, 2024).

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Fig. 78.[77] Photo of the Giro Syntax Mips helmet.

171. Thus, the Bell MIPS and Giro MIPS Helmets satisfy limitation [9.a] of the '635 Patent.

172. Limitation [9.b] requires "an inner conforming layer connected to the outer shell layer through a shear mechanism allowing the outer shell layer to slide relative to the inner conforming layer." On information and belief, each of the Bell MIPS and Giro MIPS Helmets satisfies limitation [9.b]. For example, based on information and belief and as depicted in the figures below, the Bell Stratus MIPS helmet includes an inner conforming layer.

[77] *See also* https://www.giro.com/p/syntax-mips-road-bike-helmet/GR-7159866.html (last visited November 26, 2024).

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Fig. 79. Photos of the Bell Stratus MIPS helmet with outer shell, inner conforming layer, and shear mechanism labeled.

173. On information and belief, Bell MIPS Helmets (as exemplified by the Bell Stratus MIPS helmet) equipped with MIPS Evolve technology have shear mechanisms (seen above as yellow elastic elements disposed between the outer shell layer and inner conforming layers) that connect the outer shell and inner conforming layers.

174. As a further example, and as seen in the figure below, Bell MIPS Helmets equipped with MIPS Evolve technology use "slip plane technology… designed to reduce

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rotational forces that can result from certain impacts" and which technology allows the outer shell layer to slide relative to the inner conforming layer.



Fig. 80.[78] Photo of MIPS Evolve informational tag attached to a Bell Stratus MIPS helmet.

175. As a further example, on information and belief, and as seen in the figure below, each of the Giro MIPS Helmets (as exemplified by the Giro Syntax Mips helmet) includes an inner conforming layer connected to the outer shell layer through a shear mechanism. On information and belief, each of the Giro MIPS Helmets includes shear mechanisms (seen below as yellow elastic elements) that connect the outer shell and inner conforming layers. On information and belief, there are four such shear mechanisms present in each Giro MIPS helmet.

[78] *See also* https://www.bellhelmets.com/technology/mips.html (last visited November 26, 2024).

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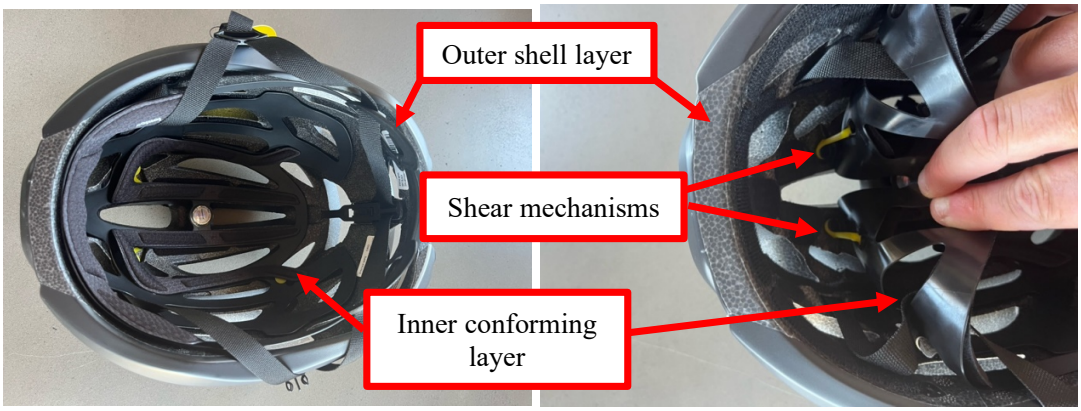


Fig. 81. Photos of the Giro Syntax Mips helmet with outer shell layer, inner conforming layer, and shear mechanisms labeled. Note the yellow elastic elements comprising the shear mechanisms.

176. Thus, the Bell MIPS and Giro MIPS Helmets satisfy limitation [9.b] of the '635 Patent.

177. Limitation [9.c] requires "wherein the shear mechanism includes a first energy transformer having a first absorptive/dissipative material." On information and belief, each of the Bell MIPS and Giro MIPS Helmets satisfies limitation [9.c].

178. For example, based on information and belief and as depicted in the figures below, the Bell Stratus MIPS helmet includes a shear mechanism with four energy transformers comprised of absorptive/dissipative material (see yellow elastic elements).

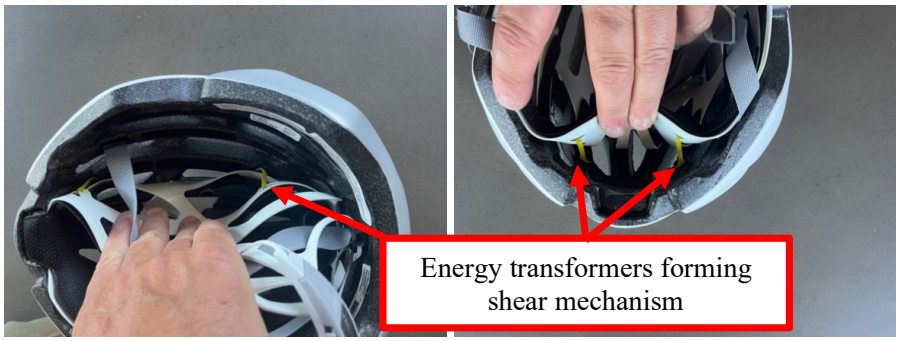


Fig. 82. Photos of the Bell Stratus MIPS helmet with the energy transformers forming the shear mechanism labeled.

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179. As a further example, based on information and belief and as depicted in the figures below, the Giro Syntax Mips helmet includes a shear mechanism with four energy transformers comprised of absorptive/dissipative material (see yellow elastic elements).

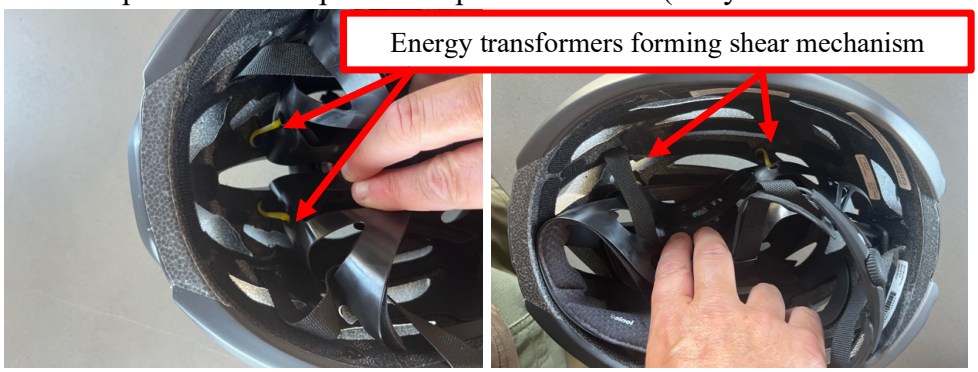


Fig. 83. Photos of the Giro Syntax Mips helmet with the energy transformers forming the shear mechanism labeled.

180. As a further example, on information and belief, and as seen in the figure below, Defendants advertise "slip plane" technology to highlight the dangers of certain types of impacts and the ability of Giro MIPS Helmets to mitigate such dangers by "reducing the amount of rotational force that may otherwise be transferred to your brain" during impact.[79]

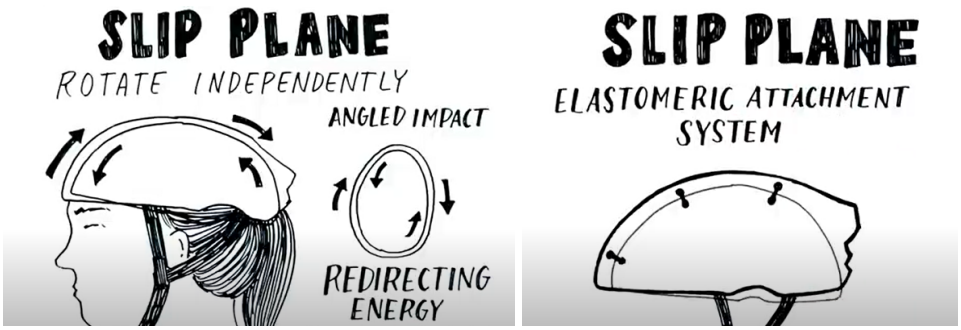


Fig. 84.[80] Screenshots from a Giro Sport Design video.

[79] *See*, *e.g.*, Giro Sport Design, "Mechanics of a Crash," https://www.youtube.com/watch?v=kQ9jRxOp1S0 (last visited November 26, 2024).

[80] Giro Sport Design, "Mechanics of a Crash" at 1:06 and 2:03, https://www.youtube.com/watch?v=kQ9jRxOp1S0 (last visited November 26, 2024) ("An elastomeric attachment system stretches on impact allowing the helmet liner to

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181. Thus, the Bell MIPS and Giro MIPS Helmets satisfy limitation [9.c] of the '635 Patent.

182. Limitation [9.d] requires "the inner conforming layer configured to conform to a human head." On information and belief, each of the Bell MIPS and Giro MIPS Helmets satisfies limitation [9.d].

183. For example, on information and belief, and as seen in the figure below, each of the Bell MIPS Helmets (as exemplified by the Bell Stratus MIPS helmet) includes an inner conforming layer configured to conform to a human head when worn.

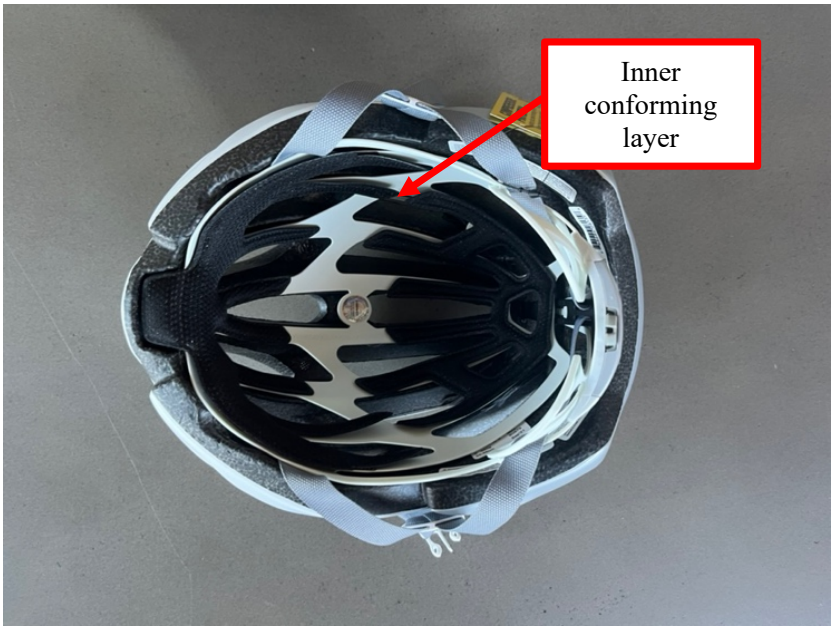


Fig. 85. Photo of a Bell Stratus MIPS helmet.

184. As a further example, on information and belief, and as seen in the figure below, each of the Giro MIPS Helmets (as exemplified by the Giro Syntax Mips helmet) includes an inner conforming layer configured to conform to a human head when worn.

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move. How much does it move? Just a couple millimeters. But those few millimeters of rotation during that crucial two milliseconds can reduce the amount of rotational force that may otherwise be transferred to your brain.").

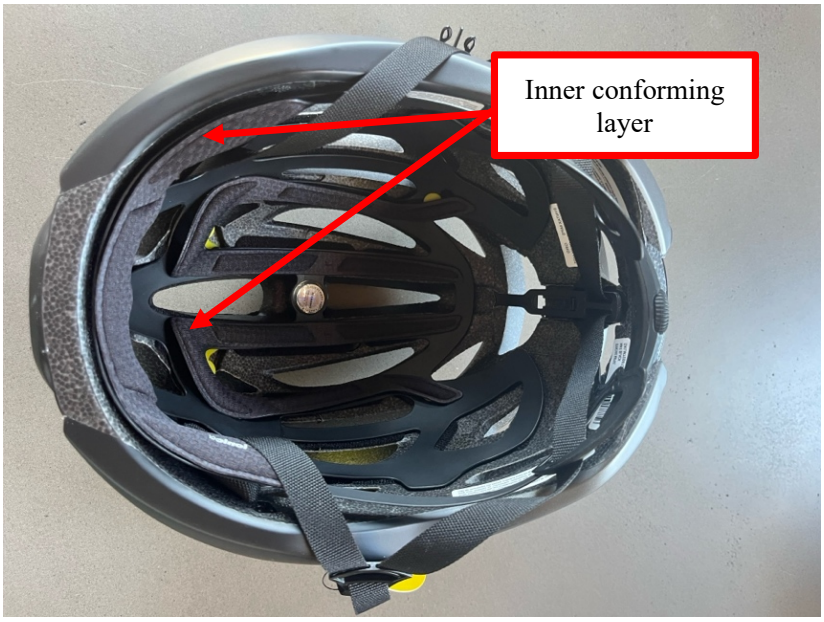


Fig. 86. Photo of a Giro Syntax Mips helmet.

185. Thus, the Bell MIPS and Giro MIPS Helmets satisfy limitation [9.d] of the '635 Patent.

186. Limitation [9.e] requires "a chin strap attached to the inner conforming layer to maintain the position of the inner conforming layer on the human head during rotational force impact while the outer shell is allowed to slide." On information and belief, each of the Bell MIPS and Giro MIPS Helmets satisfies limitation [9.e].

187. For example, on information and belief, and as seen in the figure below, each of the Bell MIPS Helmets (as exemplified by the Bell Stratus MIPS helmet) include a chin strap attached to the inner conforming layer to maintain the position of that layer during impacts while allowing the outer shell to slide relative to the inner layer.

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Fig. 87. Photos of a Bell Stratus MIPS helmet.

188. As a further example, on information and belief, and as seen in the figure below, each of the Giro MIPS Helmets (as exemplified by the Giro Syntax Mips helmet) includes a chin strap attached to the inner conforming layer. The chin strap maintains the position of the inner conforming layer on the human head while allowing a rotational force to slide the outer shell about the inner conforming layer.

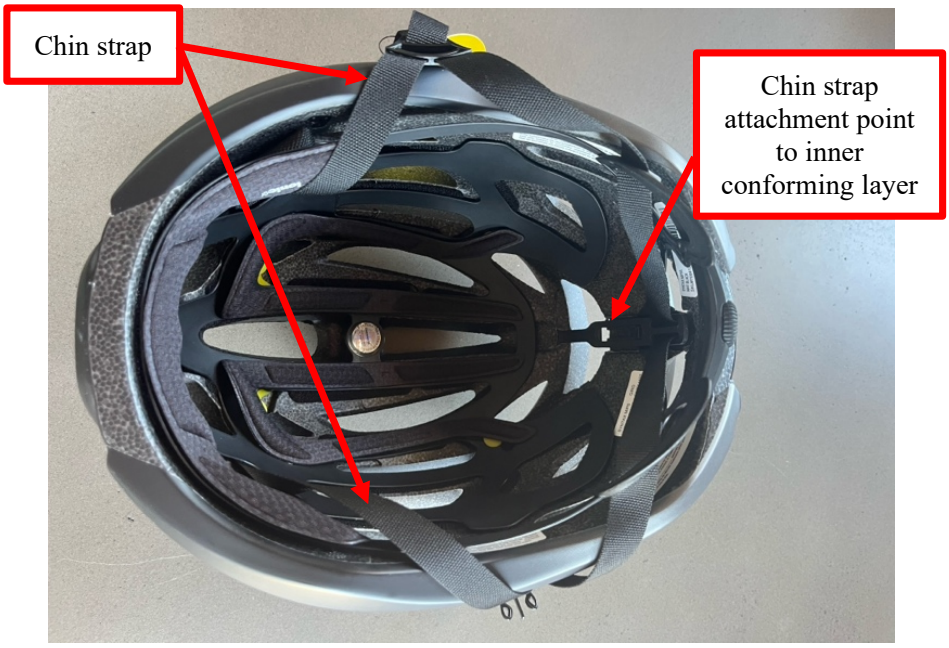


Fig. 88. Photo of a Giro Syntax Mips helmet.

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189. As a further example, on information and belief, and as seen in the figure below, Defendants advertise "slip plane" technology to highlight the dangers of certain types of impacts and the ability of Giro MIPS Helmets to mitigate such dangers by "reducing the amount of rotational force that may otherwise be transferred to your brain" during impact.[81]

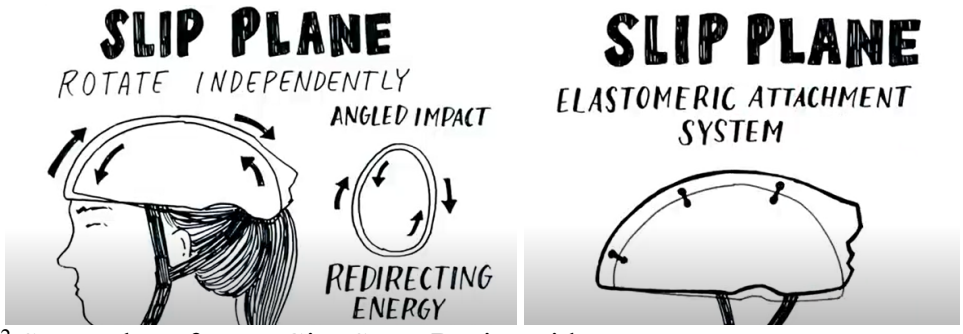


Fig. 89.[82] Screenshots from a Giro Sport Design video.

190. Thus, the Bell MIPS and Giro MIPS Helmets satisfy limitation [9.e] of the '635 Patent.

191. Therefore, each of the Bell MIPS and Giro MIPS Helmets satisfies each and every limitation of claim 9 of the '636 Patent, and therefore infringes at least claim 9 of the '635 Patent.

192. At least as of the date of filing of the instant suit, Defendants have had knowledge of their infringement of the '635 Patent. Accordingly, and to the extent that Defendants continue to make, use, sell, offer to sell, and/or import any of the Bell MIPS or

[81] *See*, *e.g.*, Giro Sport Design, "Mechanics of a Crash," https://www.youtube.com/watch?v=kQ9jRxOp1S0 (last visited November 26, 2024).
[82] Giro Sport Design, "Mechanics of a Crash" at 1:06 and 2:03, https://www.youtube.com/watch?v=kQ9jRxOp1S0 (last visited November 26, 2024) ("An elastomeric attachment system stretches on impact allowing the helmet liner to move. How much does it move? Just a couple millimeters. But those few millimeters of rotation during that crucial two milliseconds can reduce the amount of rotational force that may otherwise be transferred to your brain.").

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Giro MIPS Helmets, Defendants' infringement of the '635 Patent in violation of 35 U.S.C. §§ 271 et seq. as detailed above, following the filing of the instant suit, is and continues to be willful.

193. As a result of Defendants' infringement of the '635 Patent, BrainGuard has suffered and continues to suffer substantial injury and is entitled to recover all damages caused by Defendants' infringement to the fullest extent permitted by the Patent Act, together with prejudgment interest and costs for Defendants' wrongful conduct.

FIFTH CAUSE OF ACTION
(PATENT INFRINGMENT UNDER 35 U.S.C. § 271 OF THE '909 PATENT BY DEFENDANTS)

194. BrainGuard re-alleges and incorporates by reference all of the foregoing paragraphs.

195. On information and belief, Defendants have directly infringed and continue to directly infringe either literally or under the doctrine of equivalents, one or more claims, including at least claim 1 of the '909 Patent in violation of 35 U.S.C. § 271, et seq., by making, using, offering to sell, selling, and/or importing at least the Bell MIPS and Giro MIPS Helmets.

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196. Claim 1 of the ’909 Patent provides:

[1.preamble] A helmet comprising:

[1.a] an outer protective shell;

[1.b] an inner protective shell;

[1.c] a first energy transformer layer associated with a shear mechanism, the first energy transformer layer residing between the outer protective shell and the inner protective shell, wherein the shear mechanism allows the outer protective shell to slide relative to the inner protective shell;

[1.d] a liner layer connected to the inner protective shell, the liner layer configured to reside between the inner protective shell and a human head;

[1.e] a chin strap attached to the inner protective shell, the chin strap and the liner layer configured to secure the inner protective shell to the human head while the outer protective shell is allowed to slide relative to the inner protective shell.

197. On information and belief, Defendants design, make, offer for sale, sell, and/or import Bell MIPS and Giro MIPS Helmets that meet each and every limitation of at least claim 1 of the ’909 Patent as stated below.

198. On information and belief, and based on publicly available information, all Bell MIPS Helmets have the same or similar technology regarding the below-identified features. On further information and belief, and based on publicly available information, the Bell Stratus MIPS helmet is representative of the Bell MIPS Helmets. On further information and belief, and based on publicly available information, each of the Bell MIPS Helmets functions and is structured in a manner similar, if not identical, to the Bell Stratus MIPS helmet as it relates to infringing the ’909 Patent. And on further information and belief, and based on publicly available information, each of the Bell MIPS Helmets possesses features and/or attributes similar, if not identical, to those features and/or

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attributes of the Bell Stratus MIPS helmet identified by BrainGuard as infringing the '909 Patent. Accordingly, the analysis of the Bell Stratus MIPS helmet that follows applies equally to each of the accused Bell MIPS Helmets.

199. On information and belief, and based on publicly available information, all Giro MIPS Helmets have the same or similar technology regarding the below-identified features. On further information and belief, and based on publicly available information, the Giro Syntax Mips helmet is representative of the Giro MIPS Helmets. On further information and belief, and based on publicly available information, each of the Giro MIPS Helmets functions and is structured in a manner similar, if not identical, to the Giro Syntax Mips helmet as it relates to infringing the '909 Patent. And on further information and belief, and based on publicly available information, each of the Giro MIPS Helmets possesses features and/or attributes similar, if not identical, to those features and/or attributes of the Giro Syntax Mips helmet identified by BrainGuard as infringing the '909 Patent. Accordingly, the analysis of the Giro Syntax Mips helmet that follows applies equally to each of the accused Giro MIPS Helmets.

200. The preamble of claim 1 requires: "[a] helmet." To the extent possible that the preamble of claim 1 of the '909 Patent is determined to be limiting (and as discussed elsewhere herein), the Bell MIPS and Giro MIPS Helmets satisfy the preamble.

201. Limitation [1.a] requires "an outer protective shell." On information and belief, each of the Bell MIPS and Giro MIPS Helmets satisfies limitation [1.a]. For example, based on information and belief and as depicted in the figures below, the Bell Stratus MIPS and Giro Syntax Mips helmets each include an outer protective shell.

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Fig. 90.[83] Photo of the Bell Stratus MIPS helmet.

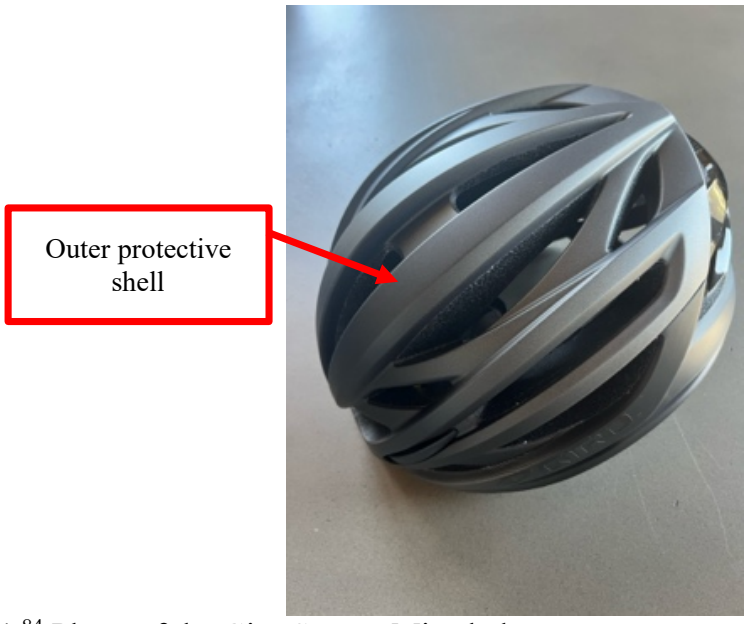


Fig. 91.[84] Photo of the Giro Syntax Mips helmet.

[83] *See also* https://www.bellhelmets.com/bike/p/stratus-mips-road-bike-helmet/100000000300000063.html (last visited November 26, 2024).

[84] *See also* https://www.giro.com/p/syntax-mips-road-bike-helmet/GR-7159866.html (last visited November 26, 2024).

202. Thus, the Bell MIPS and Giro MIPS Helmets satisfy limitation [1.a] of the '909 Patent.

203. Limitation [9.b] requires "an inner protective shell." On information and belief, each of the Bell MIPS and Giro MIPS Helmets satisfies limitation [1.b]. For example, based on information and belief and as depicted in the figures below, the Bell Stratus MIPS and Giro Syntax Mips helmets each include an inner protective shell.



Fig. 92. Photo of a Bell Stratus MIPS helmet.

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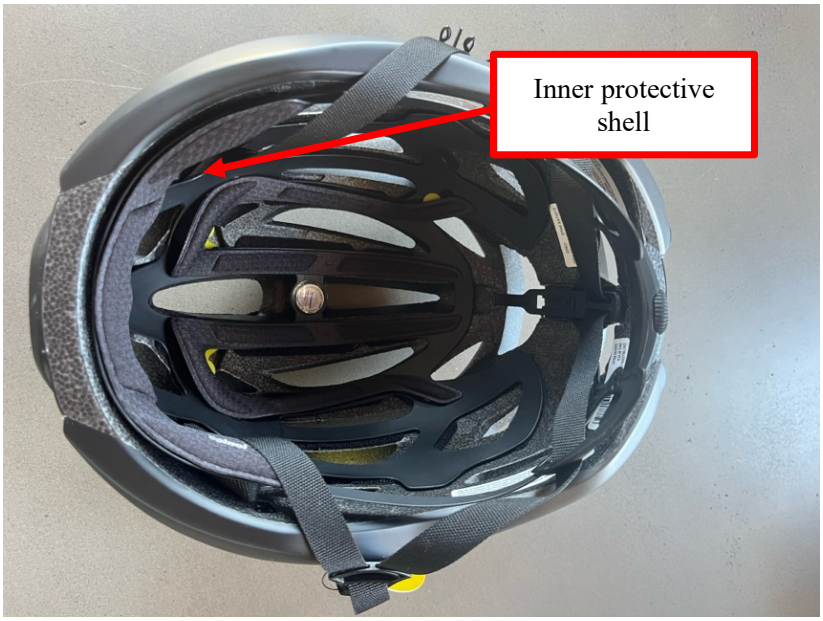


Fig. 93. Photo of a Giro Syntax Mips helmet.

204. Thus, the Bell MIPS and Giro MIPS Helmets satisfy limitation [1.b] of the '909 Patent.

205. Limitation [1.c] requires "a first energy transformer layer associated with a shear mechanism, the first energy transformer layer residing between the outer protective shell and the inner protective shell, wherein the shear mechanism allows the outer protective shell to slide relative to the inner protective shell." On information and belief, each of the Bell MIPS and Giro MIPS Helmets satisfies limitation [1.c].

206. For example, based on information and belief and as depicted in the figures below, the Bell Stratus MIPS helmet includes a shear mechanism with four energy transformers (which make up the required first energy transformer layer) comprised of elastomeric elements disposed between and connecting the outer protective shell and the inner protective shell. On further information and belief, the energy transformers allow the outer and inner protective shells to slide relative to one another during impacts.

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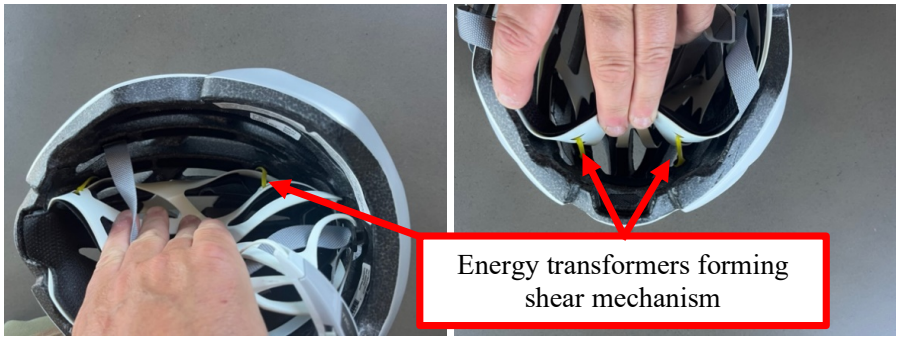


Fig. 94. Photos of the Bell Stratus MIPS helmet with the energy transformers forming the shear mechanism labeled. Note the placement of the energy transformers between the outer and inner protective shells.

207. As a further example, and as seen in the figure below, Bell MIPS Helmets equipped with MIPS Evolve technology use "slip plane technology… designed to reduce rotational forces that can result from certain impacts" and which technology allows the outer protective shell to slide relative to the inner protective shell.



Fig. 95.[85] Photo of MIPS Evolve informational tag attached to a Bell Stratus MIPS helmet.

208. As a further example, based on information and belief and as depicted in the figures below, the Giro Syntax Mips helmet includes a shear mechanism with four energy

[85] *See also* https://www.bellhelmets.com/technology/mips.html (last visited November 26, 2024).

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transformers (which make up the required first energy transformer layer) comprised of elastomeric elements disposed between and connecting the outer protective shell and the inner protective shell. On further information and belief, the energy transformers allow the outer and inner protective shells to slide relative to one another during impacts.

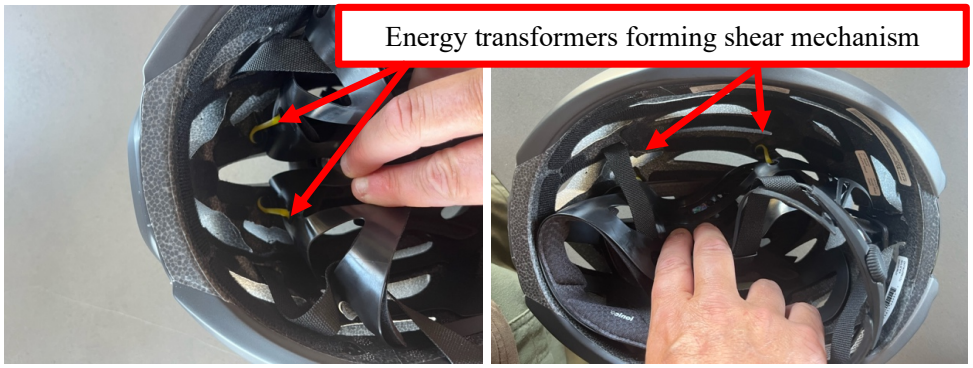


Fig. 96. Photos of the Giro Syntax Mips helmet with the energy transformers forming the shear mechanism labeled.

209. As a further example, on information and belief, and as seen in the figure below, Defendants advertise "slip plane" technology to highlight the dangers of certain types of impacts and the ability of Giro MIPS Helmets to mitigate such dangers by "reducing the amount of rotational force that may otherwise be transferred to your brain" during impact.[86]

[86] *See*, *e.g.*, Giro Sport Design, "Mechanics of a Crash," https://www.youtube.com/watch?v=kQ9jRxOp1S0 (last visited November 26, 2024).

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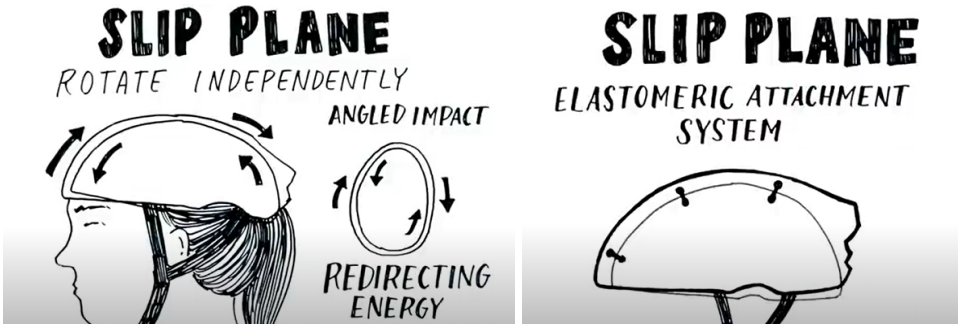


Fig. 97.[87] Screenshots from a Giro Sport Design video.

210. Thus, the Bell MIPS and Giro MIPS Helmets satisfy limitation [1.c] of the '909 Patent.

211. Limitation [1.d] requires "a liner layer connected to the inner protective shell, the liner layer configured to reside between the inner protective shell and a human head." On information and belief, each of the Bell MIPS and Giro MIPS Helmets satisfies limitation [1.d].

212. For example, on information and belief, and as seen in the figure below, each of the Bell MIPS Helmets (as exemplified by the Bell Stratus MIPS helmet) includes a liner layer connected to the inner protective shell which is configured to reside between the inner protective shell and a human head when worn.

[87] Giro Sport Design, "Mechanics of a Crash" at 1:06 and 2:03, https://www.youtube.com/watch?v=kQ9jRxOp1S0 (last visited November 26, 2024) ("An elastomeric attachment system stretches on impact allowing the helmet liner to move. How much does it move? Just a couple millimeters. But those few millimeters of rotation during that crucial two milliseconds can reduce the amount of rotational force that may otherwise be transferred to your brain.").

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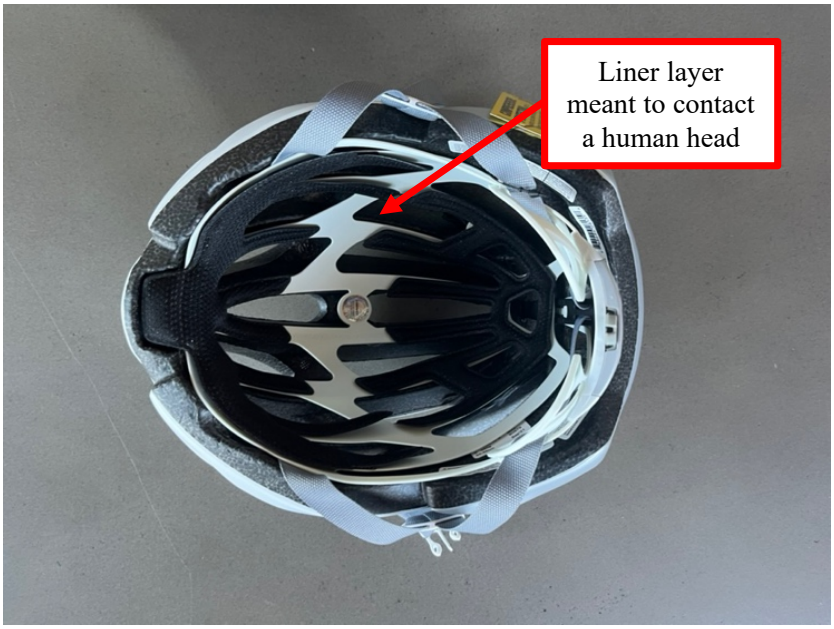


Fig. 98. Photo of a Bell Stratus MIPS helmet.

213. As a further example, on information and belief, and as seen in the figure below, each of the Giro MIPS Helmets (as exemplified by the Giro Syntax Mips helmet) includes an inner conforming layer configured to conform to a human head when worn.



Fig. 99. Photo of a Giro Syntax Mips helmet.

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214. Thus, the Bell MIPS and Giro MIPS Helmets satisfy limitation [1.d] of the '909 Patent.

215. Limitation [1.e] requires "a chin strap attached to the inner protective shell, the chin strap and the liner layer configured to secure the inner protective shell to the human head while the outer protective shell is allowed to slide relative to the inner protective shell." On information and belief, each of the Bell MIPS and Giro MIPS Helmets satisfies limitation [1.e].

216. For example, on information and belief, and as seen in the figures below, each of the Bell MIPS Helmets (as exemplified by the Bell Stratus MIPS helmet) includes a chin strap attached to the inner protective shell. On further information and belief, each of the Bell MIPS Helmets (as exemplified by the Bell Stratus MIPS helmet) uses the chin strap and the liner layer to secure a human head to the inner protective shell while allowing the outer protective shell to slide relative to the inner protective shell.

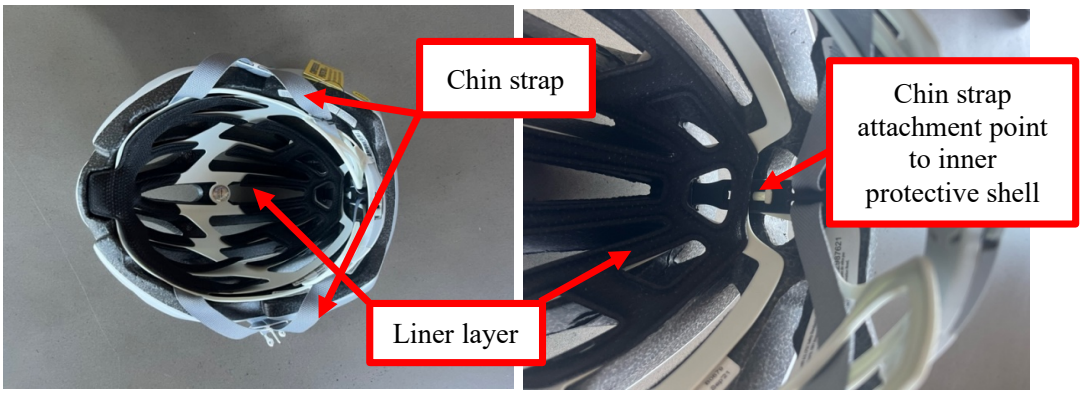


Fig. 100. Photos of a Bell Stratus MIPS helmet.

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Fig. 101.[88] Screenshot depicting user wearing a Bell Stratus MIPS helmet with chin strap engaged.

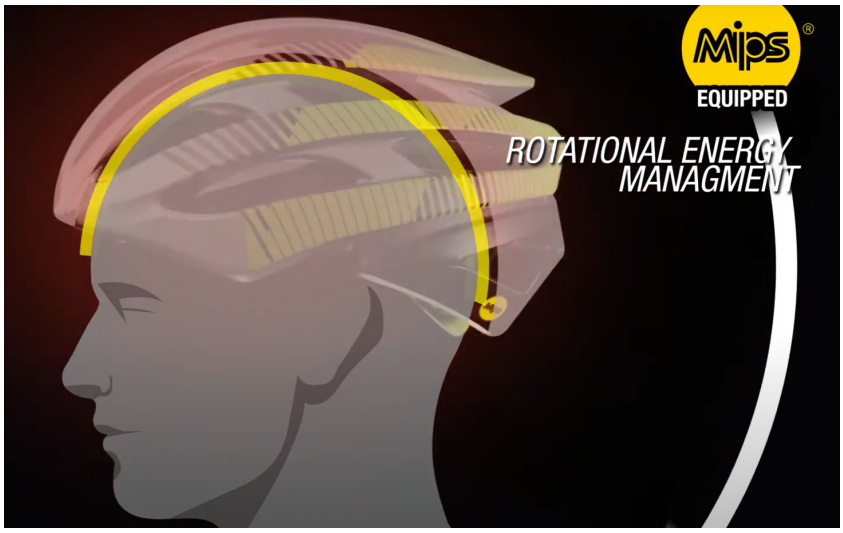


Fig. 102.[89] Screenshot of video available on the Bell Stratus MIPS product page depicting the sliding action between the inner and outer protective shells.

[88] https://www.bellhelmets.com/bike/p/stratus-mips-road-bike-helmet/100000000300000063.html (last visited November 26, 2024).
[89] https://www.bellhelmets.com/bike/p/stratus-mips-road-bike-helmet/100000000300000063.html (last visited November 26, 2024); *see also*

217. As a further example, on information and belief, and as seen in the figures below, each of the Giro MIPS Helmets (as exemplified by the Giro Syntax Mips helmet) includes a chin strap attached to the inner protective shell. On further information and belief, each of the Giro MIPS Helmets (as exemplified by the Giro Syntax Mips helmet) uses the chin strap and the liner layer to secure a human head to the inner protective shell while allowing the outer protective shell to slide relative to the inner protective shell.

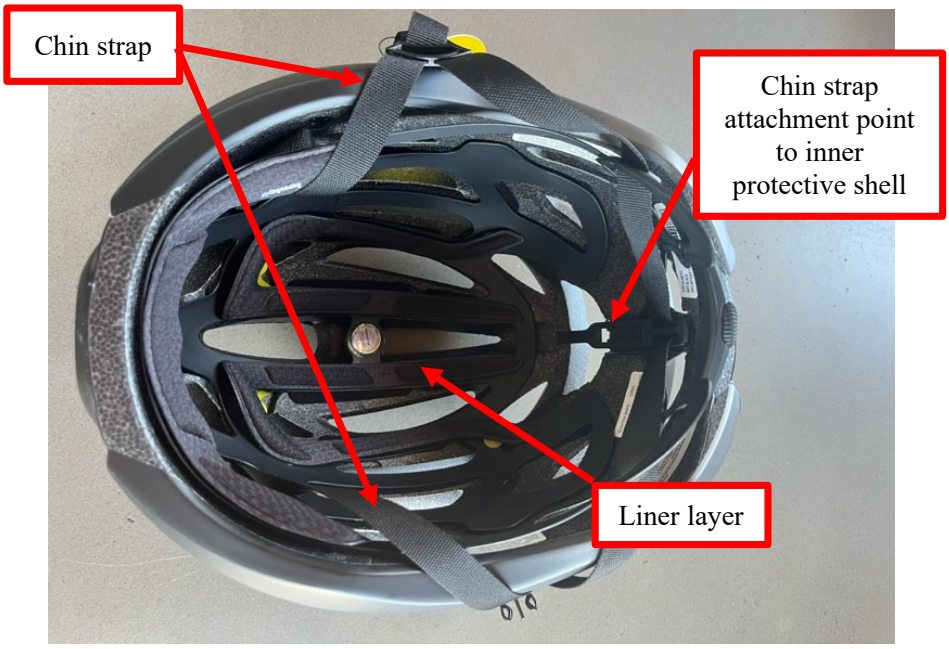


Fig. 103. Photo of a Giro Syntax Mips helmet.

https://www.youtube.com/watch?v=DwtKFSIQ2uQ&t=36s (last visited November 26, 2024).

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Fig. 104.[90] Screenshot depicting user wearing a Giro Syntax Mips helmet with chin strap engaged.

218. As a further example, on information and belief, and as seen in the figure below, Defendants advertise "slip plane" technology to highlight the dangers of certain types of impacts and the ability of Giro MIPS Helmets to mitigate such dangers by "reducing the amount of rotational force that may otherwise be transferred to your brain" during impact.[91]

[90] https://www.giro.com/p/syntax-mips-road-bike-helmet/100000000300000101.html (last visited November 26, 2024).

[91] *See*, *e.g.*, Giro Sport Design, "Mechanics of a Crash," https://www.youtube.com/watch?v=kQ9jRxOp1S0 (last visited November 26, 2024).

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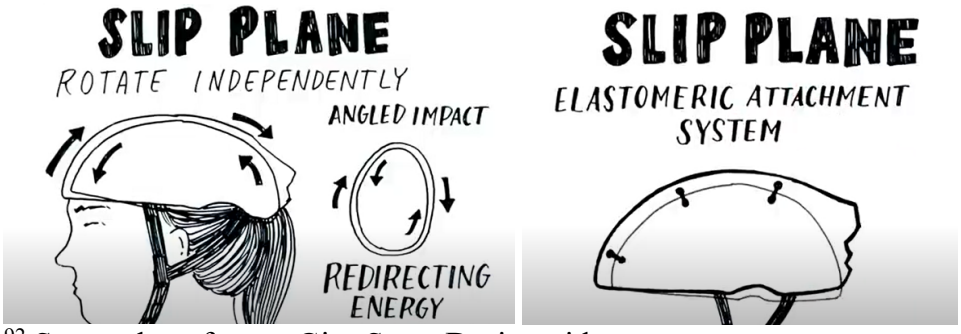


Fig. 105.[92] Screenshots from a Giro Sport Design video.

219. Thus, the Bell MIPS and Giro MIPS Helmets satisfy limitation [1.e] of the '909 Patent.

220. Therefore, each of the Bell MIPS and Giro MIPS Helmets satisfies each and every limitation of claim 1 of the '909 Patent, and therefore infringes at least claim 1 of the '909 Patent.

221. At least as of the date of filing of the instant suit, Defendants have had knowledge of their infringement of the '909 Patent. Accordingly, and to the extent that Defendants continue to make, use, sell, offer to sell, and/or import any of the Bell MIPS or Giro MIPS Helmets, Defendants' infringement of the '909 Patent in violation of 35 U.S.C. §§ 271 et seq. as detailed above, following the filing of the instant suit, is and continues to be willful.

222. As a result of Defendants' infringement of the '909 Patent, BrainGuard has suffered and continues to suffer substantial injury and is entitled to recover all damages caused by Defendants' infringement to the fullest extent permitted by the Patent Act, together with prejudgment interest and costs for Defendants' wrongful conduct.

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[92] Giro Sport Design, "Mechanics of a Crash" at 1:06 and 2:03, https://www.youtube.com/watch?v=kQ9jRxOp1S0 (last visited November 26, 2024) ("An elastomeric attachment system stretches on impact allowing the helmet liner to move. How much does it move? Just a couple millimeters. But those few millimeters of rotation during that crucial two milliseconds can reduce the amount of rotational force that may otherwise be transferred to your brain.").

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PRAYER FOR RELIEF

223. WHEREFORE, BrainGuard respectfully requests judgment against Defendants, and that the Court adjudge that:

224. Defendants infringe, and are therefore jointly and severally liable for infringing, the '319 Patent, the '561 Patent, the '536 Patent, the '635 Patent, and the '909 Patent;

225. Defendants willfully infringe the '319 Patent, the '561 Patent, the '536 Patent, the '635 Patent, and the '909 Patent;

226. BrainGuard is entitled to and shall be awarded damages by this Court under 35 U.S.C. § 284 sufficient to compensate for Defendants' infringement, including but not limited to infringement occurring before the filing of this lawsuit;

227. BrainGuard is entitled to and shall be awarded by this Court any post-judgment ongoing royalties under 35 U.S.C. § 284 as may be appropriate;

228. BrainGuard is entitled to and shall be awarded by this Court any applicable pre-judgment and post-judgment interest; and

229. this Court award BrainGuard such other relief at law or in equity as the Court deems just and proper.

JURY DEMAND

230. BrainGuard requests that all claims and causes of action raised in this Complaint against Defendants be tried to a jury to the fullest extent possible.

Date: December 6, 2024

Respectfully Submitted,

/s/ Cristofer Leffler

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