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(54) **FOOTWEAR ASSEMBLIES WITH REMOVABLE ENHANCED TRACTION DEVICES AND ASSOCIATED METHODS OF USE AND MANUFACTURE**

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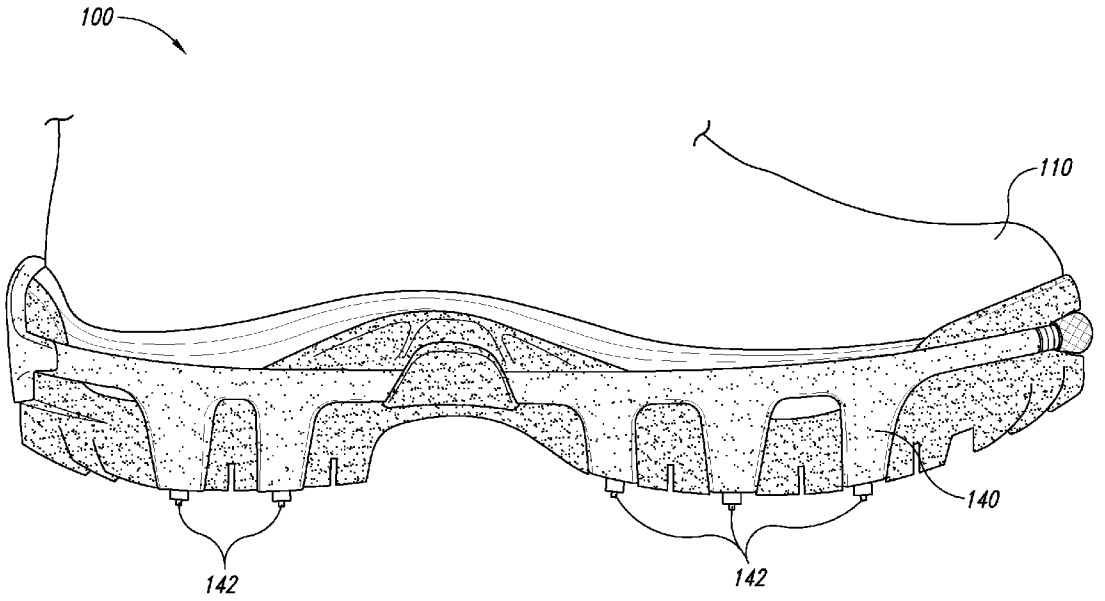
(52) **U.S. Cl.** ..... **36/59 C**; 36/59 R

(57) **ABSTRACT**

Footwear assemblies including removable enhanced traction devices are disclosed herein. In one embodiment, a footwear assembly includes a footwear product with an outsole that removably receives a traction enhancing device. The outsole includes a tread pattern having a plurality of channels corresponding to portions of the traction device. The traction device includes multiple webs or straps that carry studs or other types of protrusions for improved traction. When a user attaches the traction device to the footwear product, the channels in the outsole removably receive the corresponding webs, thereby positioning the protrusions to extend away from the outsole. The outsole can also include one or more channels extending around one or more peripheral portions of the footwear product (e.g., around the side, back and/or front) to receive corresponding portions of the traction device and retain the traction device on the footwear product.



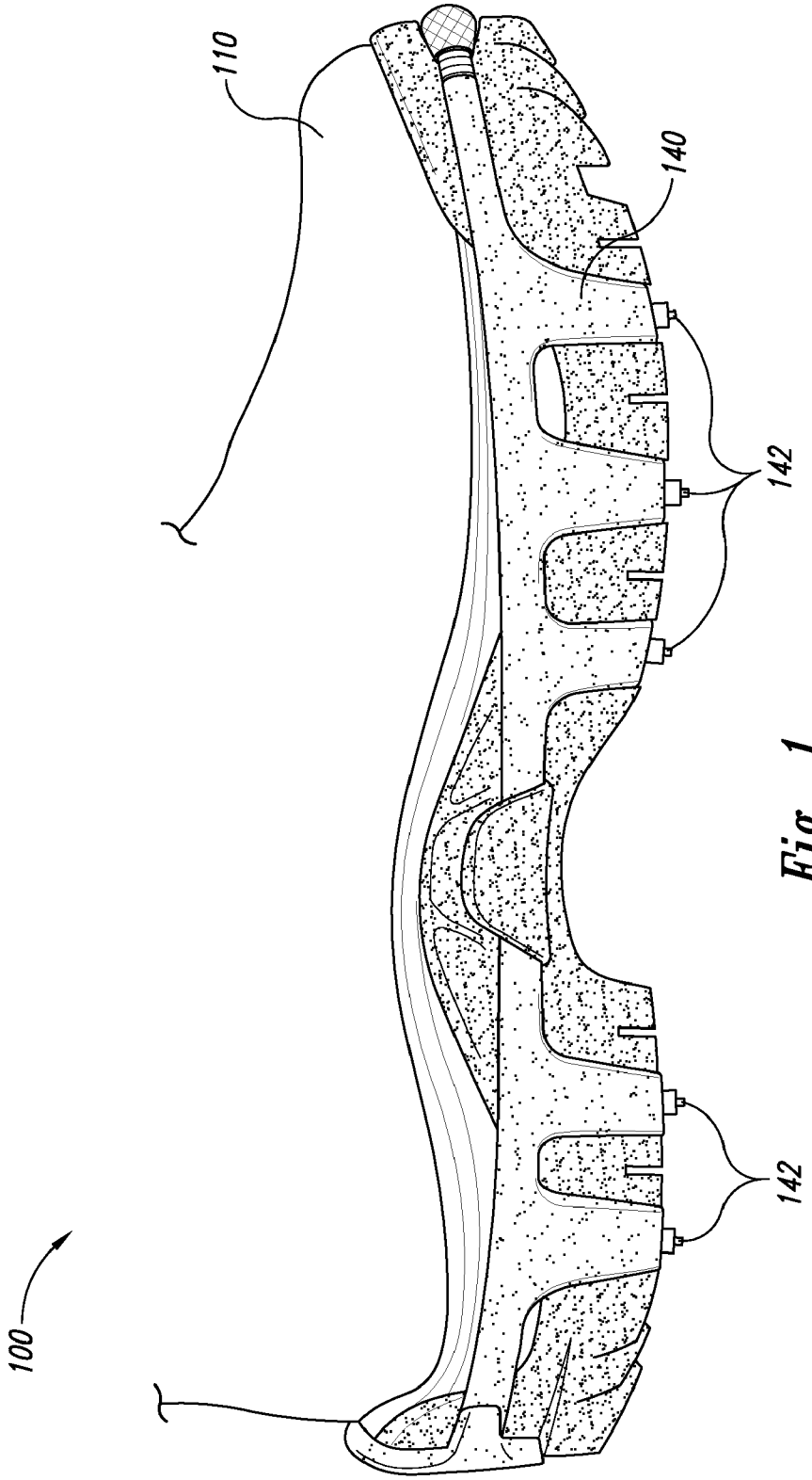


Fig. 1

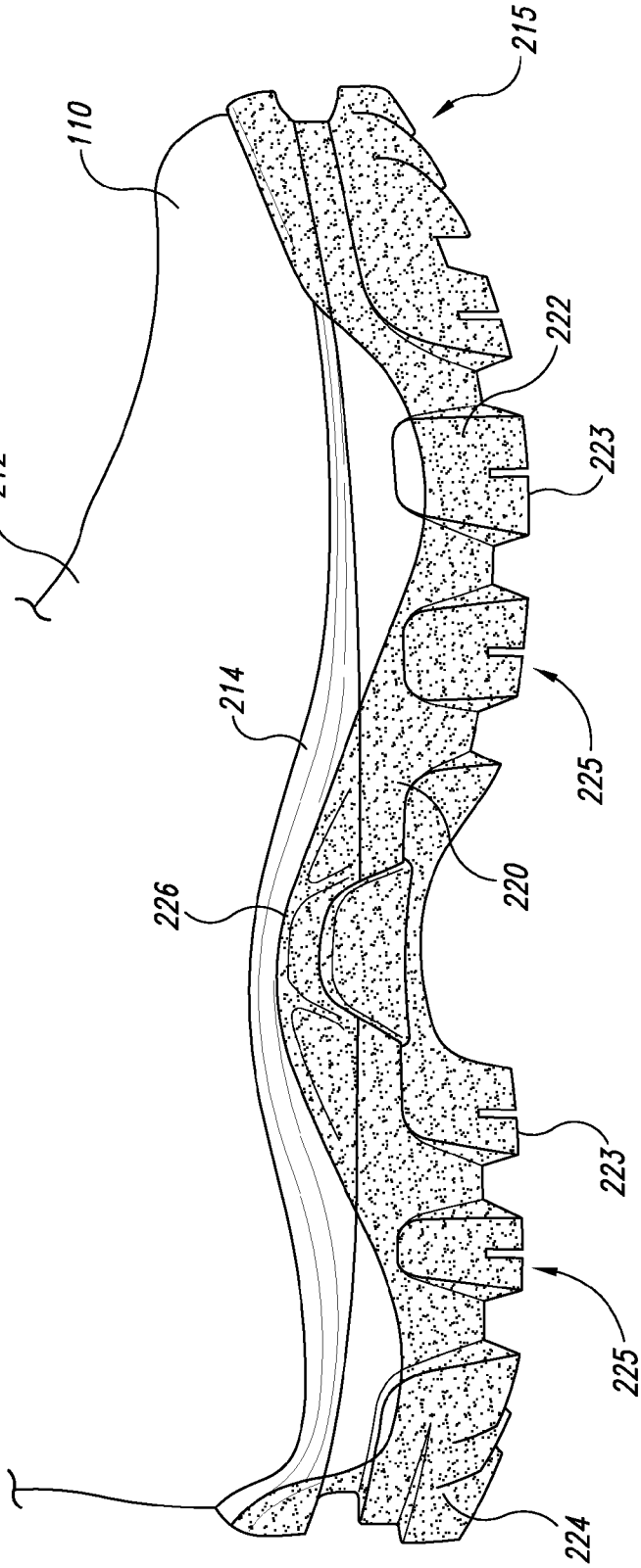
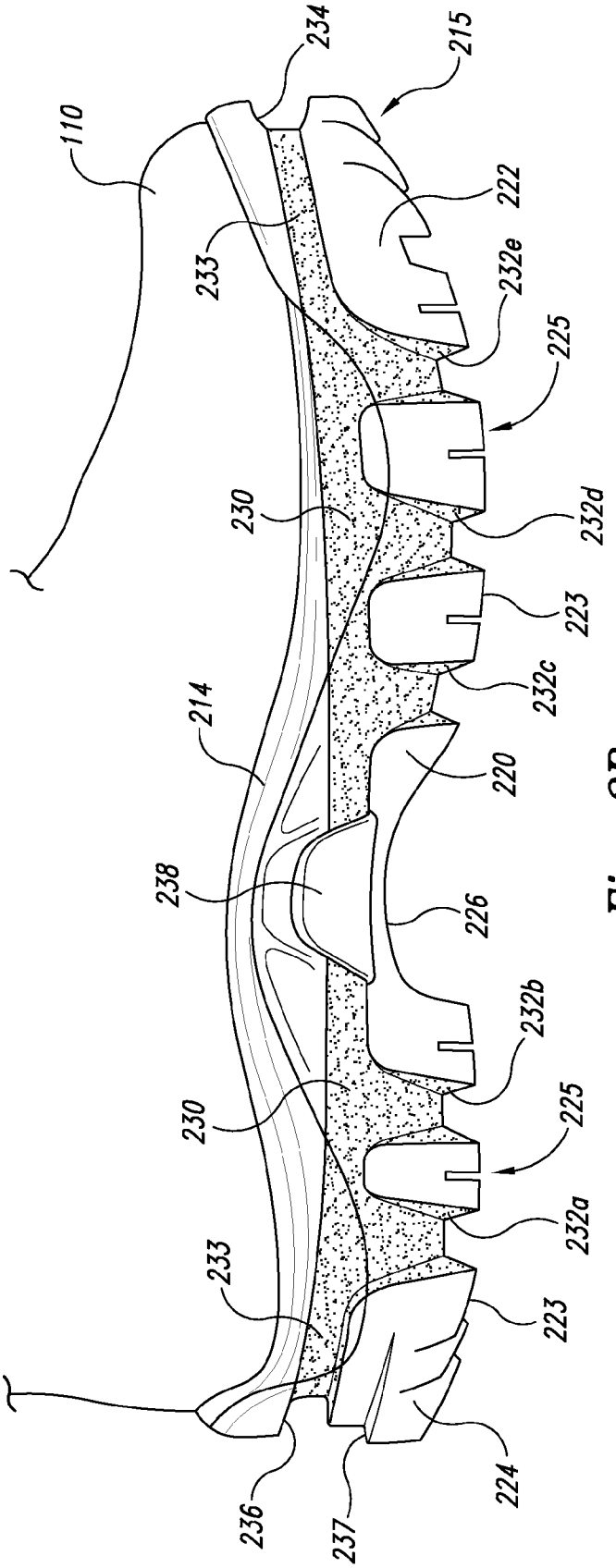


Fig. 2A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215
110
222
233
232e
225
230
232d
223
232c
214
220
238
226
232b
230
225
232a
233
223
236
237
224

Fig. 2B

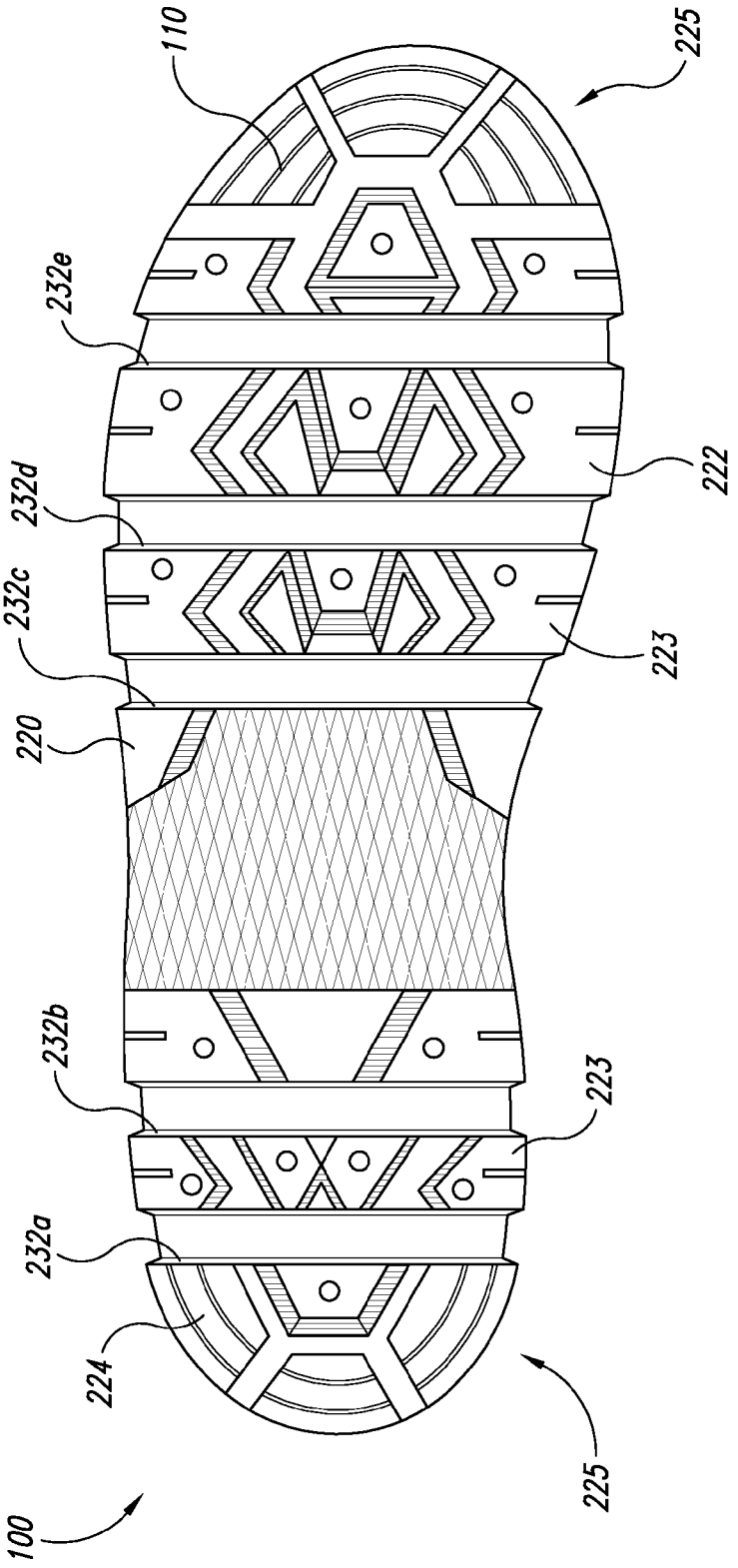
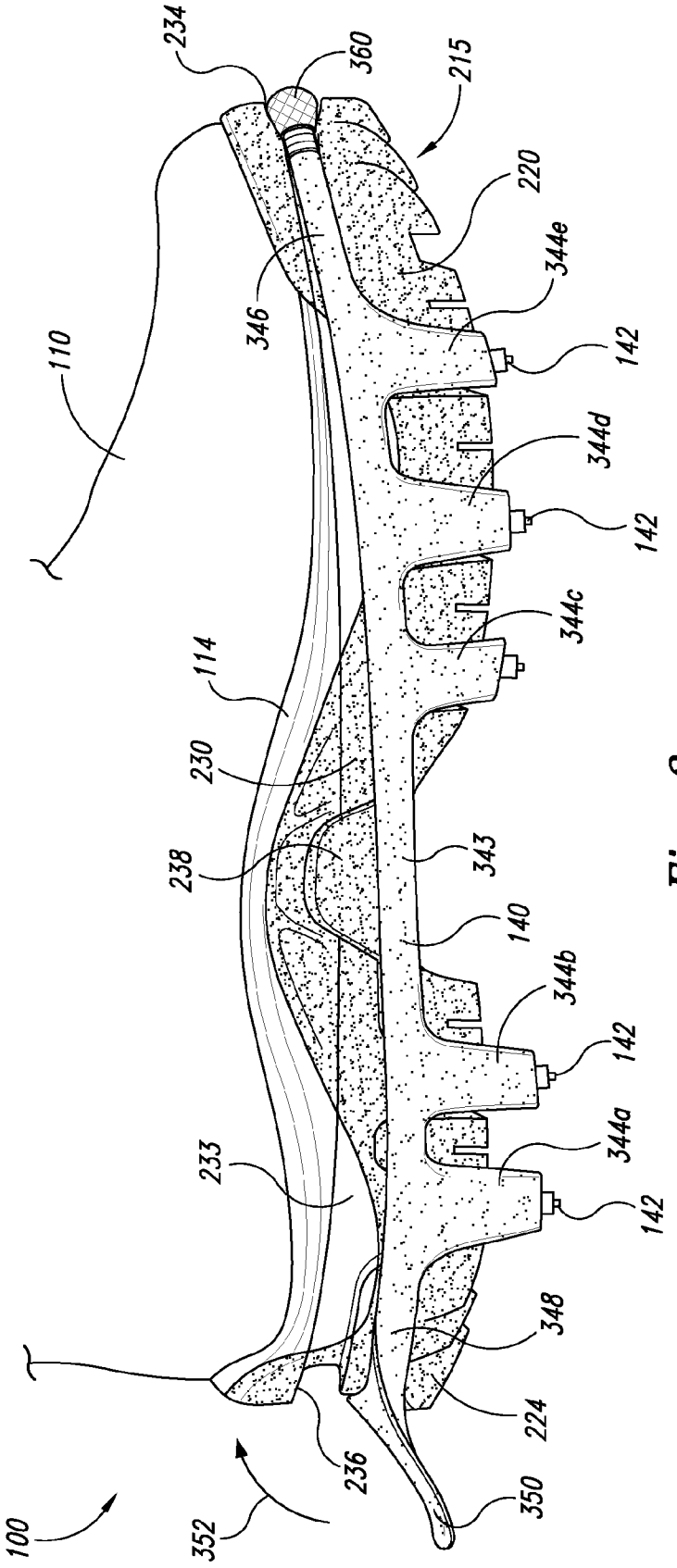


Fig. 2C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360
215
220
344e
346
142
110
344d
142
344c
114
230
238
343
140
344b
142
344a
233
142
348
224
236
350
352
100

Fig. 3

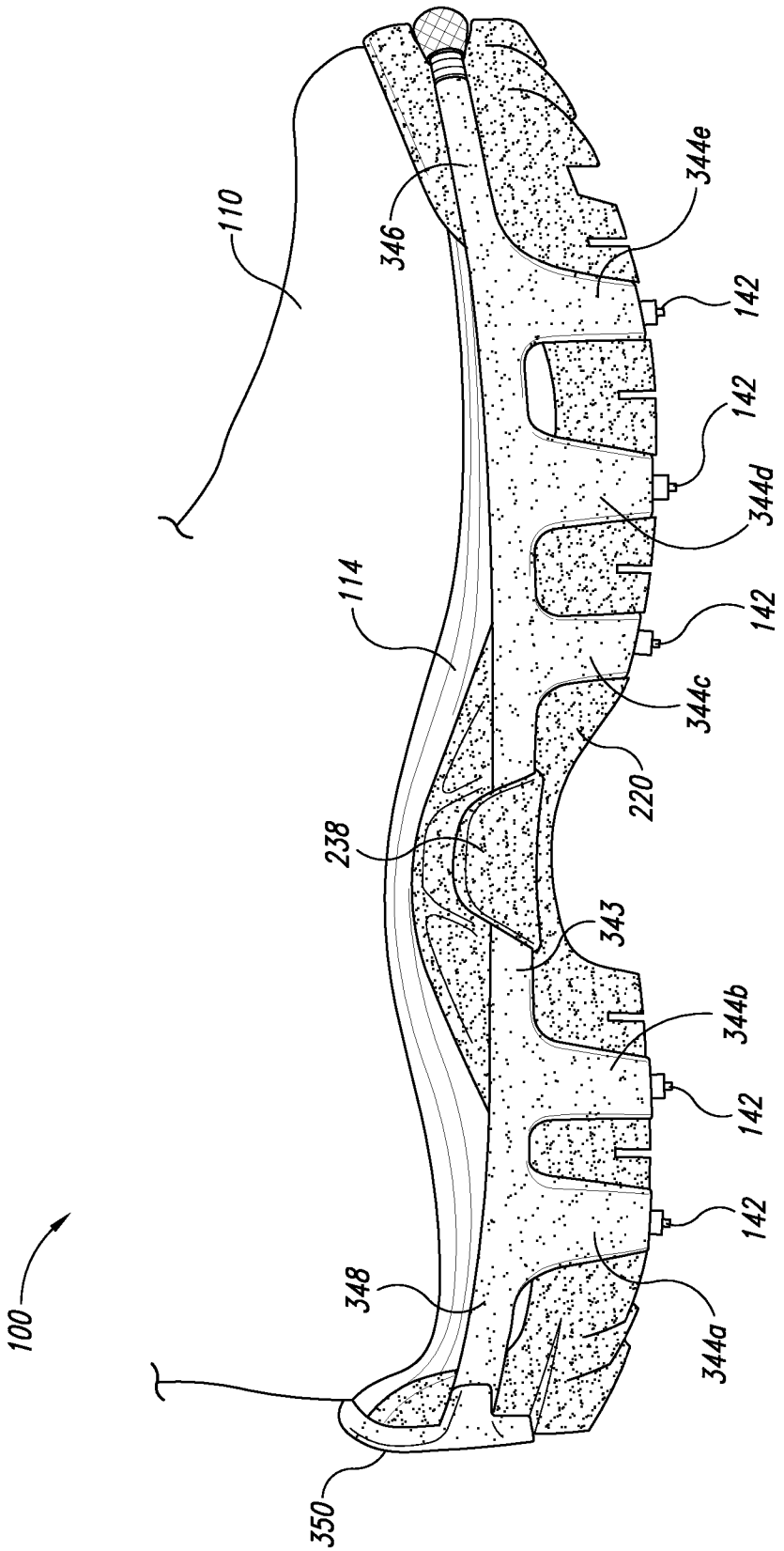
100
110
114
142
142
142
142
142
220
238
343
344a
344b
344c
344d
344e
346
348
350

Fig. 4A

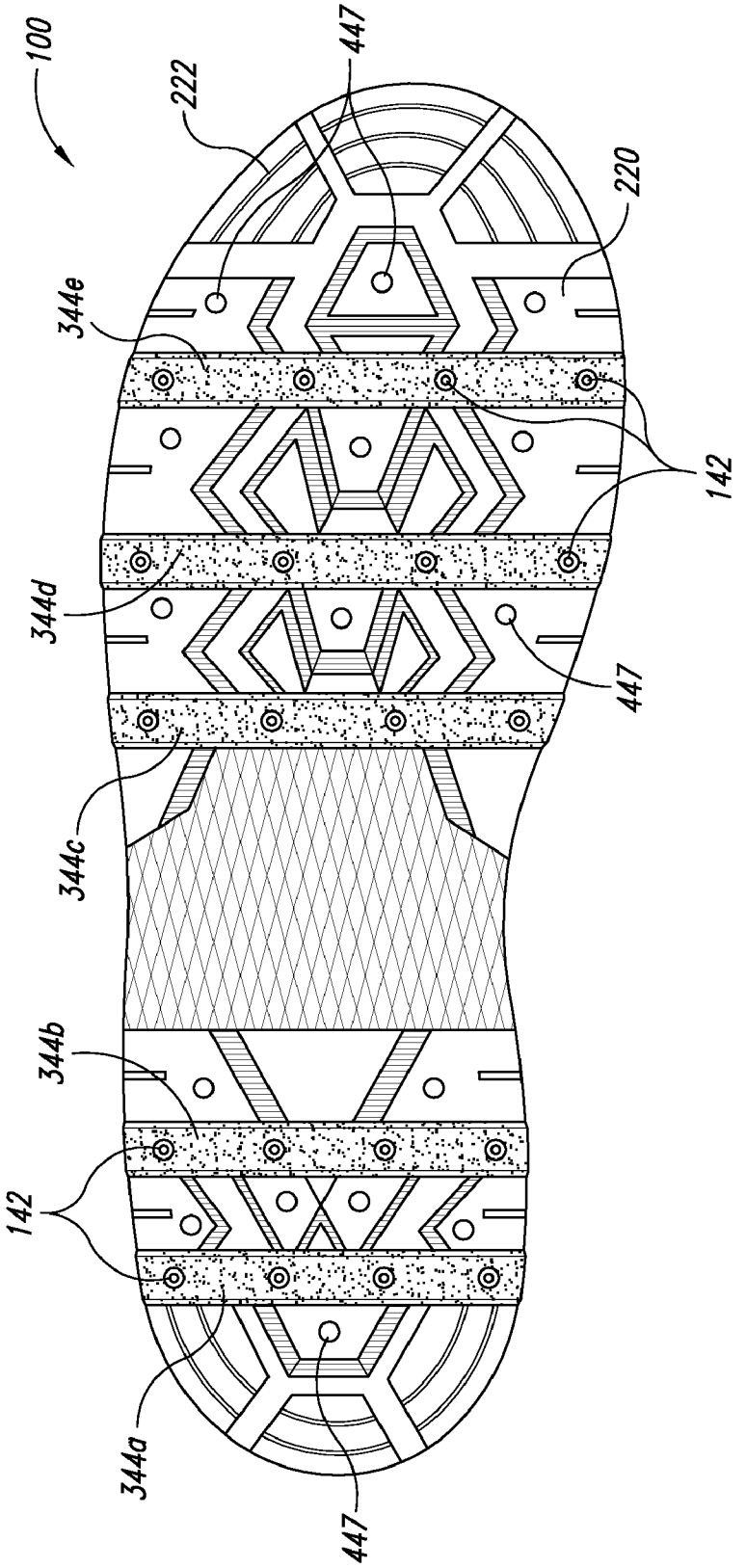

Fig. 4B

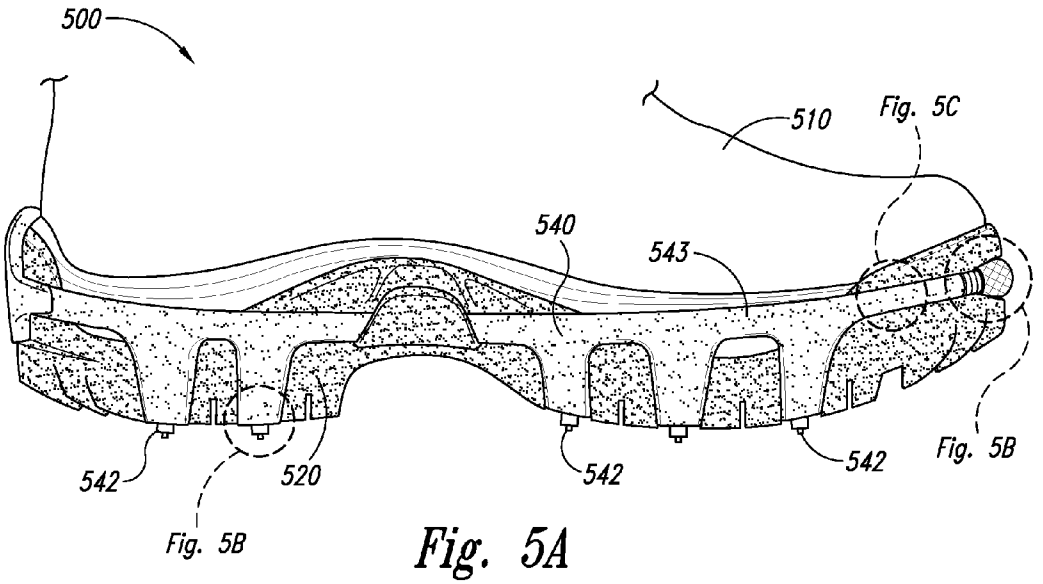

Fig. 5A

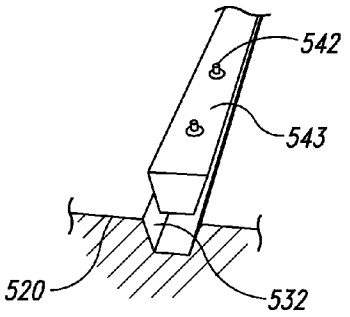

Fig. 5B

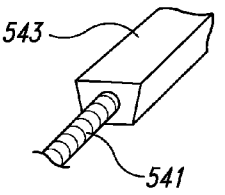

Fig. 5C

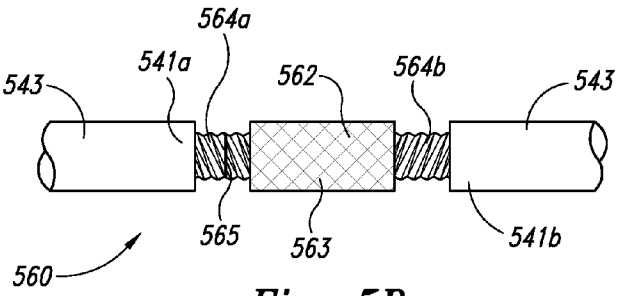

Fig. 5D

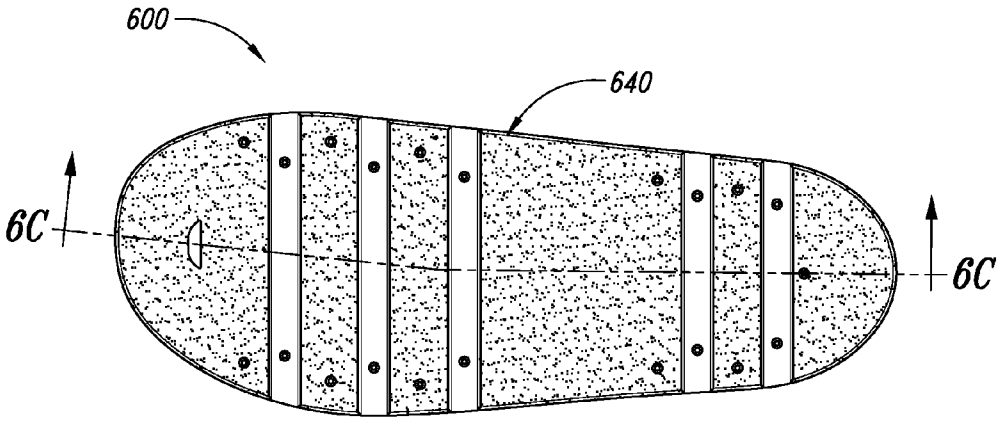

Fig. 6A

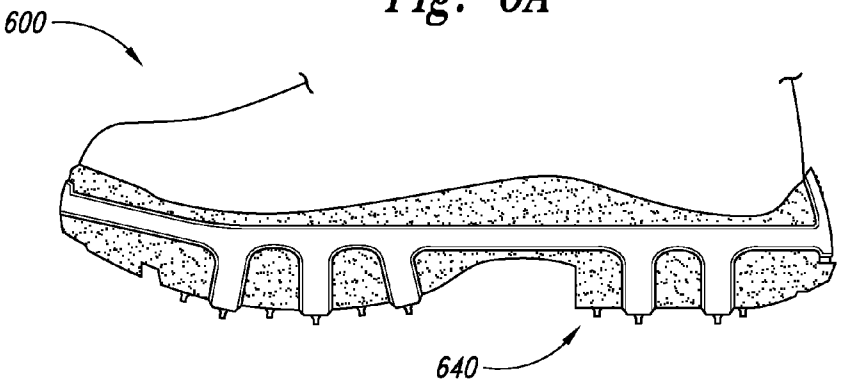

Fig. 6B

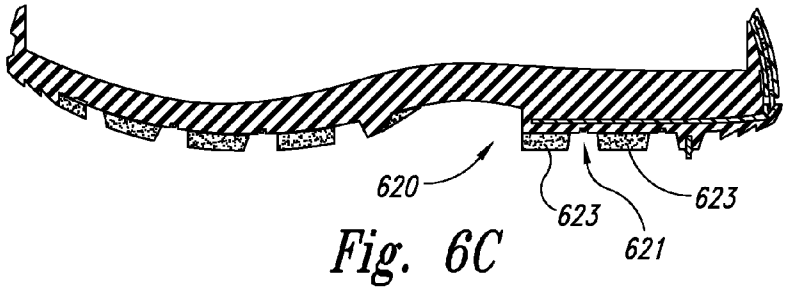

Fig. 6C

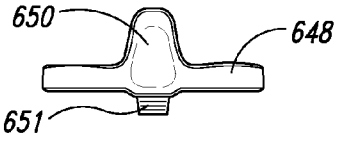

Fig. 6D

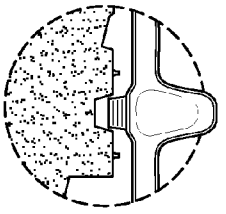

Fig. 6E

FOOTWEAR ASSEMBLIES WITH REMOVABLE ENHANCED TRACTION DEVICES AND ASSOCIATED METHODS OF USE AND MANUFACTURE

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] The present application claims priority to U.S. Provisional Application No. 61/144,414,entitled "FOOTWEAR ASSEMBLIES WITH REMOVABLE ENHANCED TRACTION DEVICES AND ASSOCIATED METHODS OF USE AND MANUFACTURE," filed Jan. 13, 2009, and U.S. Provisional Application No. 61/267,791, entitled "FOOTWEAR ASSEMBLIES WITH REMOVABLE ENHANCED TRACTION DEVICES AND ASSOCIATED METHODS OF USE AND MANUFACTURE," filed Dec. 8, 2009, each of which is incorporated herein by reference in its entirety.

TECHNICAL FIELD

[0002] The present disclosure is directed generally to footwear assemblies with removable traction enhancing devices.

BACKGROUND

[0003] Articles of footwear have been designed and worn by humans since early in recorded history. Articles of footwear were initially designed to protect the bottom of the feet of wearers while walking or running over rough surfaces. Although the primary purpose of footwear remains basically unchanged, the various types of activity and surfaces on which wearers run, walk, or stand on have led to an ever increasing diversity in the style and construction of footwear. For examples, humans engage in a wide variety of physical activities including walking, running, hiking, trekking, hunting, backpacking, and indoor and outdoor activities. Articles of footwear have been designed for each of these specific activities. More specifically, for example, running shoes are typically designed to provide a wearer with suitable comfort and support for running long distances.

SUMMARY

[0004] Embodiments of the disclosure are directed to footwear assemblies including removable enhanced traction devices, and associated methods of use and manufacture. A footwear assembly configured in accordance with one embodiment of the disclosure includes a footwear product, such as a boot, with an outsole that removably receives a traction enhancing device. The outsole includes a tread pattern having a plurality of channels corresponding to portions of the traction device. For example, the traction device can include multiple webs or straps that carry studs or other types of protrusions for improved traction. When a user attaches the traction device to the boot, the channels in the outsole removably receive the corresponding webs, thereby positioning the protrusions to extend away from the outsole. The outsole can also include one or more channels extending around one or more peripheral portions of the boot (e.g., around the side, back and/or front) to receive corresponding portions of the traction device and retain the traction device on the boot. In certain embodiments, the traction device is self-tensioning. In other embodiments, the tension of the traction device is adjustable to accommodate various sizes of boots or to tighten the traction device after placing it on the boot.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] FIG. **1** is a side view of a footwear assembly configured in accordance with an embodiment of the disclosure.

[0006] FIGS. **2**A and **2**B are side views and FIG. **2**C is a bottom view of the footwear assembly of FIG. **1** with the traction device removed from the footwear product.

[0007] FIG. **3** is a side view of the footwear assembly of FIG. **1** with the traction device partially attached to the footwear product.

[0008] FIG. **4**A is a side view and FIG. **4**B is a bottom view of the footwear assembly of FIG. **1** with the traction device removably attached or secured to the footwear product.

[0009] FIG. **5**A is a side view of a footwear assembly configured in accordance with another embodiment of the disclosure.

[0010] FIG. **5**B is an enlarged isometric view of detail **5**B of FIG. **5**A, FIG. **5**C is an enlarged isometric view of detail **5**C of FIG. **5**A, and FIG. **5**D is a front view of detail **5**D of FIG. **5**A.

[0011] FIG. **6** illustrates several representative views of a footwear assembly configured in accordance with another embodiment of the disclosure.

DETAILED DESCRIPTION

[0012] Footwear assemblies with removable enhanced traction devices and associated methods for using and making such assemblies are described in detail herein in accordance with embodiments of the present disclosure. Certain details are set forth in the following description, in the Figures, and in the Appendix to provide a thorough and enabling description of various embodiments of the disclosure. Other details describing well-known structures and components often associated with footwear assemblies and methods of forming such assemblies, however, are not set forth below to avoid unnecessarily obscuring the description of various embodiments of the disclosure.

[0013] Many of the details, dimensions, angles, relative sizes of components, and/or other features shown in the Figures are merely illustrative of particular embodiments of the disclosure. Accordingly, other embodiments can have other details, dimensions, angles, sizes, and/or features without departing from the spirit and scope of the present disclosure. In addition, further embodiments of the disclosure may be practiced without several of the details described below, while still other embodiments of the disclosure may be practiced with additional details and/or features.

[0014] FIG. **1** is a side view of a footwear assembly **100** ("assembly **100**") configured in accordance with an embodiment of the disclosure. In the illustrated embodiment, the assembly **100** includes a footwear product or boot **110** that removably retains a traction enhancing assembly or device **140** ("traction device **140**"). As will be appreciated by one of ordinary skill in the relevant art, the footwear product **110** can include any article of footwear (e.g., a shoe, sandal, boot, etc.) and is not limited to the boot **110** shown in the Figures. The traction device **140** includes a plurality of protrusions **142** (e.g., cleats, spikes, studs, etc.) that enhance or improve a user's traction on slippery surfaces. In one embodiment, the protrusions include studs of the type described in U.S. Pro-

visional Patent Application No. 61/267,787, filed Dec. 8, 2009, which is incorporated herein in its entirety by reference thereto.

[0015] The traction device **140** of the illustrated embodiment enhances the traction of the boot **110** on icy surfaces or other slippery surfaces. As explained in detail below, the boot **110** includes several features that facilitate the alignment and retention of the traction device **140** on the boot **110**. As such, a user can attach the traction device **140** to the boot **110** for use in slippery conditions, and remove the traction device **140** from the boot **100** when enhanced traction is no longer needed or desired.

[0016] FIG. **2**A is a side view of the boot **110** configured in accordance with an embodiment of the disclosure. In FIG. **2**A, the traction device **140** of FIG. **1** is removed or separated from the boot **110**. As shown in the illustrated embodiment, the boot **110** has an upper **212** (only partially shown in FIG. **2**A) attached to a sole assembly **215**. The sole assembly **215** of the illustrated embodiment includes an outsole **220** attached to a midsole **214**, which is attached to the upper **212**. In certain embodiments, the outsole **220** can be a separate component adhered or otherwise secured to the midsole **214**. For example, the outsole **220** can be formed from molded rubber, and the midsole **214** can be made of an EVA or other closed-cell foam material. In yet other embodiments, the outsole **220** can be integrally formed with the midsole **214**. In other embodiments, the components of the sole assembly **215** can be made from other materials suitable for footwear devices and/or soles.

[0017] According to one aspect of the illustrated embodiment, the outsole **220** includes a forefoot portion **222** spaced apart from a heel portion **224** by an arch portion **226**. Each of the forefoot and heel portions **222**, **224** has a lower surface **223** with a tread pattern **225** that facilitates walking on rough or uneven terrain. For example, the tread pattern can be configured for walking on irregular or slippery ground. In the illustrated embodiment, the outsole **220** is configured for a work boot wherein the heel portion **224** includes a 90-degree heel (i.e., a heel that projects away from the arch portion **226** at roughly a perpendicular orientation). In this configuration, the arch portion **226** of the outsole **220** is substantially free of lugs or other substantial traction projections, such as the type provided on the forefoot portion **222** and the heel portion **224**. In other embodiments, however, the lower surface **223** and the tread pattern **225** can be configured for other non-work boot foot wear for walking or running on other surfaces, including for example, smooth surfaces. As also explained in detail below, the sole assembly **215**, including the tread pattern **225**, is configured to accommodate the traction device **140** (FIG. **1**).

[0018] According to another aspect of the illustrated embodiment, the sole assembly **215** is configured to removably receive the traction device **140** (FIG. **1**). FIG. **2**B, for example, is a side view of the boot **110**, illustrating certain features of the sole assembly **215** that retain the traction device **140** on the boot **110**. The illustrated sole assembly **215** includes a retention portion **230** recessed or otherwise depressed into corresponding portions of the outsole **220** and the midsole **214**. For purposes of illustration in FIG. **2**B, the retention portion **230** is shown as a shaded or gray portion of the sole assembly **215**. The retention portion **230** includes a plurality of interconnected recessed grooves or channels that receive corresponding portions of the traction device **140**. More specifically, the retention portion **230** includes multiple lower channels **232** (identified individually as a first through fifth channels **232***a*-**232***e*) extending through the lower surface **223** of the outsole **220**.

[0019] FIG. **2**C, is a bottom view of the boot **110** of FIG. **2**B. Referring to FIGS. **2**B and **2**C together, the first and second lower channels **232***a*, **232***b* extend laterally across the heel portion **224**, and the third, fourth, and fifth lower channels **232***c*-**232***e* extend laterally across the forefoot portion **222**. In the illustrated embodiment, the lower channels **232** are at least approximately parallel to one another. In other embodiments, however, the lower channels **232** can be formed at non-parallel angles relative to one another, and/or extending longitudinally along portions of the outsole **220**. Moreover, the lower channels **232** can form other types of patterns in the lower surface **223** of the outsole **220**, including, for example, a grid-like pattern, a webbed pattern, a symmetrical pattern, an irregular pattern, etc. According to another feature of the illustrated embodiment, each of the lower channels **232** has a generally trapezoidal cross-sectional shape extending into the outsole **220** (e.g., the lower channels **232** can be wider at the lower surface **223** of the outsole **220**). In other embodiments, however, the lower channels **232** can have other cross-sectional shapes including, for example, rectilinear, curved, irregular, etc. Moreover, although five lower channels **232** are illustrated in FIGS. **2**B and **2**C, in other embodiments the outsole **220** can include a greater or lesser number of lower channels **232**.

[0020] As also noted above and shown in FIG. **2**C, in addition to the lower channels **232**, the tread pattern **225** of the outsole **220** can include several gripping features, surfaces, and/or other patterns configured for various types of walking conditions.

[0021] As also shown in FIG. **2**B, the retention portion **230** of the sole assembly **215** includes a side channel **233** extending between a front channel **234** and a rear channel **236**. The side channel **233** extends longitudinally along the sole assembly **215** through portions of each of the outsole **220** and the midsole **214**. Although not shown in FIG. **2**B, at the side of the boot **110** opposite the side illustrated in FIG. **2**B the retention portion **230** also has a side channel extending longitudinally along the boot **110**. The front channel **234** extends through the forefoot portion **222** of the outsole **220**, and the rear channel **236** extends through the heel portion **224** of the outsole **220**. Although the retention portion **230** described above with reference to FIGS. **2**A-**2**C is described as having multiple separate channels or portions, one of ordinary skill in the art will appreciate that the lower channels **232**, the side channel **233**, the front channel **234**, and the rear channel **236** can be interconnected and can be integrally formed in the sole assembly **215**. For example these channels can be molded or otherwise formed in the sole assembly **215** when the sole assembly is formed. Moreover, certain embodiments of the retention portion **230** can include other channels or omit one or more of the channels described above.

[0022] According to another aspect of the embodiment illustrated in FIG. **2**B, the retention portion **230** does not include any channels or grooves in the lower surface **223** of the outsole **220** between the forefoot portion **222** and the heel portion **224**. More specifically, the arch portion **226** free of any grooves or other retention members in the lower surface **223** of the outsole **220**. In the illustrated embodiment, however, the sole assembly **215** includes a retention member **238** projecting laterally from the sidewall of the sole assembly **215** at a location generally aligned with the arch portion **226**.

The retention member **238** can be a hook-like protrusion that at least partially covers the side channel **233** at the arch portion **226**. In certain embodiments, the retention member **238** can be made from the same material as the outsole **220** and integrally formed with the outsole **220**. In other embodiments, however, the retention member **238** can be made from other materials. Moreover, in certain embodiments, the retention member **238** can be attached to a stiffening shank (not shown) included in the sole assembly **215** at the arch portion **226**.

[0023] As also shown in FIG. **2**B, the heel portion **224** includes a ledge or step portion **237** proximate to the rear channel **236**. As described below in detail, the step portion **237** can be used to removably position the traction device **140** (FIG. **1**) over the outsole **220** of the boot **110**. FIG. **3**, for example, is a side view of the assembly **100** with the traction device **140** partially positioned in the retention portion **230**. The traction device **140** has a web-like configuration received in the channels of the retention portion **230**. More specifically, the traction device **140** includes a side web **343** extending peripherally around the sole assembly **215** in the side channel **233** of the retention portion **230**. The traction device **140** also includes multiple lower webs **344** (identified individually as first through fifth lower webs **344***a*-**344***b*) extending through the corresponding lower channels **232** (not shown in FIG. **3**). The traction device **140** also includes a front web **346** extending around the front of the sole assembly **215** in the front channel **234**, and a rear web **348** extending around the heel portion **224** of the sole assembly **215** that will be received in the rear channel **236**.

[0024] According to one aspect of the illustrated embodiment, FIG. **3** illustrates a step in the process of aligning or attaching the traction device to the boot **110**. For example, as shown in FIG. **3**, the traction device **140** is not fully inserted into or aligned with the corresponding channels in the retention portion **230**. Moreover, the side web **343** is positioned below the retention member **238** and the side channel **233**. In the illustrated embodiment, to fully attach the traction device **140** to the boot **110**, a user can insert the front web **346** into the front channel **234** and pull the rear web **348** over the heel portion **224** of the outsole **220**. To aid the user, the traction device **140** includes a leverage member **350** at the rear web **348**. The leverage member **350** can be a rigid member molded with the traction device **140** at the rear web **348**. As shown in FIG. **3**, the leverage member **350** can engage the step portion **237** of the heel portion **224** of the outsole **220** to allow a user to stretch or pull the traction device **140** into place. For example, after aligning the front web **346** and the lower webs **344** into the retention portion **230**, a user can rotate the leverage member **350** in the direction indicated by arrow **352**. Rotating the leverage member **350** in this direction engages the step portion **237** and elastically stretches the traction device **140** to allow the traction device **140** to be securely positioned in the retention portion **230** on the boot **110**.

[0025] In operation, the user can wear the assemblies **100** (e.g., boots) without the traction devices installed, such as when enhanced traction is not needed. When enhanced traction is needed, such as when walking or standing on ice, snow or other frozen ground, the user can quickly and easily install the traction devices **140** on each boot as discussed above without needing to remove the boots from the user's feet. In one embodiment, the traction devices **140** and the sole assemblies can be configured so a traction device will fit on either a left assembly (e.g., a boot for the user's left foot) or a right sole assembly (e.g., a boot for the user's right foot). In another embodiment, the traction devices **140** can have left and right configurations to specifically fit the sole assembly of a left or right boot or other assembly **100**. When enhanced traction is no longer needed, the user can pull or otherwise remove the traction devices from the boots without needing to take the boots off. The traction devices **140** can then be put in the user's pocket or in another suitable storage location until the next time enhanced traction is needed. In one embodiment, the traction devices **140** are configured to be generally foldable, which allows for compact storage when the traction devices **140** are not in use.

[0026] FIG. **4**A is a side view and FIG. **4**B is a bottom view of the assembly **100** with the traction device **140** in place and positioned in the retention portion **230** of the boot **110**. Referring to FIGS. **4**A and **4**B together, the lower webs **344** are aligned and received in the lower channels **232** of the outsole **220**. Moreover, the side web **343** is engaged in the side channel **233** and at least partially retained in place by the retention member **238** at the side of the outsole **220**. In this manner, the corresponding webs of the traction device **140** are correctly seated and recessed in the corresponding channels of the retention portion **230** in the sole assembly **215**. For example, the retention member **238** positions and retains the side web **343** in the side channel **233** at the side of the outsole **220**, the rear web **348** can be positioned in the rear channel **236**, and the front web **346** can be positioned in the front channel **234**.

[0027] In the illustrated embodiment, the lower webs **344** extend laterally across the outsole **220** in only the heel portion **224** and the forefoot portion **222**. The removable traction device does not have lower webs that extend across lower surface of the arch portion **226**, either laterally, longitudinally, or at an angle therebetween. Accordingly, the arch portion is free of the lower webs. Such a configuration is provided in an embodiment for a work boot (e.g., a work boot having a 90-degree heel), and the lower webs **344** of the traction device do not interfere with the arch portion, such as when the user is stepping on a shovel, climbing a ladder, or any other action that typically include pressing firmly against the arch portion. While the illustrated embodiment has lower webs only extending laterally in the lower channels of the heel and forefoot portions, other embodiments can include lower webs in these portions that partially extend longitudinally or diagonally in those areas without extending across the lower surface of the arch portion. In still further embodiments, the lower webs can extend across the lower surface of the arch portion.

[0028] According to one feature of the illustrated embodiment, the bottom surface of each of the lower webs **344** is at least approximately coplanar with the lower surface **223** of the outsole **220**. In certain embodiments, the lower webs **344** can be at least partially recessed in the lower channels **232** (FIG. **2**C) in outsole **220**. In other embodiments, however, the lower webs **334** can at least partially protrude from the lower surface **223** of the outsole **220**. Regardless of the position of the lower webs **334** relative to the lower channels **232**, the protrusions **142** project away from the lower surface **223** of the outsole **220** to provide the enhanced gripping capability of the assembly **100**. In the illustrated embodiment, the protrusions **142** are generally perpendicular to the lower surface **223** of the outsole **220**. In other embodiments, however, some or all of the protrusions **142** can extend away from the lower surface **223** at an angle towards the forefoot portion **222**, the heel portion **224**, laterally from these portions, or at any other

suitable angle. Moreover, the protrusions **142** can be interconnected or ganged together in the traction device **140** to prevent individual protrusions **142** from loosening or falling out of the traction device **140**. Another benefit of the traction device **140** is that as the individual protrusions **142** wear down or are broken, a new traction device **140** can be used with the boot **110**. Moreover, in certain embodiments, the protrusions **142** can include wear indicators to allow a user to easily see when the protrusions **142** are wearing out. The protrusions **142** can all be made of the same material (i.e., metal, plastic, composite, etc.). In other embodiments, protrusions **142** or sets of protrusions can be made of a material different that other protrusions on the traction device **140**.

[0029] According to yet another feature of the embodiment illustrated in FIG. **4**B, the outsole **220** includes a plurality of openings **447** configured to removably receive individual protrusions **142** separate from the traction device **140**. In this manner, a user can adjust (e.g., increase) the traction of the outsole **220** by selectively placing protrusions **142** directly in the sole **220** in the openings **447**, in addition to the protrusions **142** carried by the lower webs **334**. For example, if a user desires more traction specifically at the forefoot portion **222**, the user can place additional protrusions **142** in the openings **447** at the forefoot portion **222** of the outsole **220**.

[0030] FIG. **5**A is a side view of a footwear assembly **500** configured in accordance with another embodiment of the disclosure. In the illustrated embodiment, the assembly **500** includes several features generally similar in structure and function to the corresponding features of the embodiments discussed above with reference to FIGS. **1**-**4**B. For example, the assembly **500** includes a boot **510** removably engaged with an enhanced traction device **540**. The traction device **540** includes multiple webs **543** extending at least partially around the boot **510**. The webs **543** include protrusions **542** that extend away from an outsole **520** of the boot **510**. Several features of the illustrated embodiment are described below with reference to FIGS. **5**B-**5**D. FIG. **5**B, for example, is an enlarged isometric view of detail **5**B of FIG. **5**A. In the embodiment illustrated in FIG. **5**B, the web **543** has a generally trapezoidal shape and is seated in a channel **532** in the outsole **520**. The channel **532** securely retains the web **543** and prevents the web **543** from slipping out of the channel **532** during use (along with several other features of the embodiments described above). Moreover, although only a portion of the web **543** and the channel **532** are shown in FIG. **5**A, the shapes or configuration of the web **543** and channel **532** can be used at any portion of the assembly **100** described above with reference to FIGS. **1**-**4**B.

[0031] FIG. **5**C is an enlarged isometric view of detail **5**C of FIG. **5**A. In the embodiment illustrated in FIG. **5**C, the web **500** includes a cable **541** extending through and embedded in the web **543**. In certain embodiments for example, the web **543** can be molded around the cable **541**. The cable **541** provides improved strength and durability for the web to accommodate varying conditions, such as rough or uneven terrain. In this manner, the cable **541** can at least partially prevent the web **543** from tearing, ripping, or otherwise coming loose from the boot.

[0032] FIG. **5**D is a front view of detail **5**D of FIG. **5**A illustrating a tension adjustment assembly **560** ("tension assembly **560**") configured in accordance with another embodiment of the disclosure. The tension assembly **560** includes a tension adjuster **562** operably coupled to the web **543**. The tension adjuster **562** includes a body **563** positioned between a first threaded end portion **564***a* and a second threaded end portion **564***b*. The body **563** can have a textured (e.g., knurled) surface to facilitate grip by a user. According to one aspect of the illustrated embodiment, the first threaded end portion **564***a* is threaded in an opposite direction than the second threaded end portion **564***b*. Moreover, the first threaded end portion **564***a* threadably engages a first end portion **541***a* of the web **543**, and the second threaded end portion **564***b* of the threadably engages a second end portion **541***a* of the web **543**. In certain embodiments, for example, the end portions **541** of the web **543** can include a barrel or other device that threadably receives the corresponding threaded end portions **564** of the tension adjuster **562**. In other embodiments, the threaded end portions **564** can be securely attached to the corresponding end portions **541** of the web **543**, and the body **563** of the tension adjuster **562** can move along the threaded end portions **564** to adjust the tension of the web **543** and/or the traction device **540**.

[0033] In operation, a user can twist or rotate the body **563** to tighten or loosen the web **543** around the boot. More specifically, rotating the body **563** moves the threaded end portions **564** and the corresponding web end portions **541** towards or away from one another. In this manner, a user can tighten or securely fasten the web **543** and corresponding traction device **540** to the boot **510**. The tension adjuster **562** also enables the user to adjust the fit of the web **543** with different sized boots. For example, the threaded end portions **564** can include one or more marks **565** to indicate how far a user can rotate the tension adjuster **562** to adjust the tension of the web **543** according to different sized boots. In one embodiment, the threaded end portions **564** can include multiple marks **565** to indicate different shoe sizes. For example, the marks can indicate small, medium, large, extra-large, etc. In other embodiments, the marks can correspond to specific numeric sizes, such as 8, 9, 10, 11, etc. In this manner, the adjustment assembly **560** allows the traction device **540** to be extendable so that the traction device **540** can fit boots of multiple sizes. For example, a size medium traction device could fit boots in the range of sizes 8-10, a size large traction device could fit boots in the range of sizes 11-14, etc.

[0034] FIG. **6** illustrates several representative views of a footwear assembly **600** including a traction enhancing assembly **640** configured in accordance with another embodiment of the disclosure. According to one feature of the illustrated embodiment, a rear web portion **648** includes a leverage member **650** having a molded support piece **651**. The support piece **651** can provide rigidity to the leverage member **650**. In certain embodiments, the support piece **651** is configured to engage a heel portion **618** of the outsole **620** to place the traction enhancing assembly **640** and/or remove the traction enhancing assembly **640** from the outsole **620**. In addition, the portion of the support member **651** that protrudes from the leverage member **650** can have a shape or configuration that generally matches the shape of a channel **621** between corresponding tread portions **623**. Accordingly, when the traction enhancing assembly **640** is removed from the footwear assembly **600**, a user can implement the support member **651** to clear debris (e.g., dirt, mud, ice, etc.) from the channel **621**.

[0035] From the foregoing, it will be appreciated that specific embodiments of the invention have been described herein for purposes of illustration, but that various modifications may be made without deviating from the spirit and scope of the invention. For example, although many of the Figures described above illustrate the traction device with intercon-

nected webs, in other footwear assemblies the traction device can include multiple webs separate and embedded in the outsole of the footwear product. Further, while various advantages associated with certain embodiments of the disclosure have been described above in the context of those embodiments, other embodiments may also exhibit such advantages, and not all embodiments need necessarily exhibit such advantages to fall within the scope of the disclosure.

I/We claim:

1. A footwear assembly, comprising:

a footwear product including an outsole having a tread pattern with multiple channels extending through the outsole; and

a traction enhancing device removably coupled to the outsole, wherein the traction enhancing device comprises:

multiple webs configured to be removably received in the corresponding channels of the outsole; and

one or more studs carried by the webs, wherein the one or more studs are configured to extend away from the outsole when the webs are received in the corresponding channels.

2. The footwear assembly of claim **1** wherein the channels are first channels extending through a bottom portion of the outsole, and wherein the outsole further comprises second channels extending around one or more peripheral side portions of the outsole, the second channels being configured to removably receive corresponding webs extending peripherally around the outsole.

3. The footwear assembly of claim **1** wherein the outsole further comprises an arch portion positioned between a forefoot portion and a heel portion, and wherein the tread pattern is only at the forefoot and heel portions such that the webs do not extend across the arch portion when the webs are removably received in the corresponding channels.

4. The footwear assembly of claim **1** wherein the traction enhancing device further comprises a leverage member configured to engage a portion of the outsole to facilitate putting on and removing the traction enhancing device from the outsole.

5. The footwear assembly of claim **4** wherein the leverage member comprises a rigid member having an end portion shaped to correspond to a cross-sectional shape of the channels.

6. The footwear assembly of claim **1** wherein the traction enhancing device further comprises a tension adjuster configured to adjust the fit of the traction enhancing device on the outsole.

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