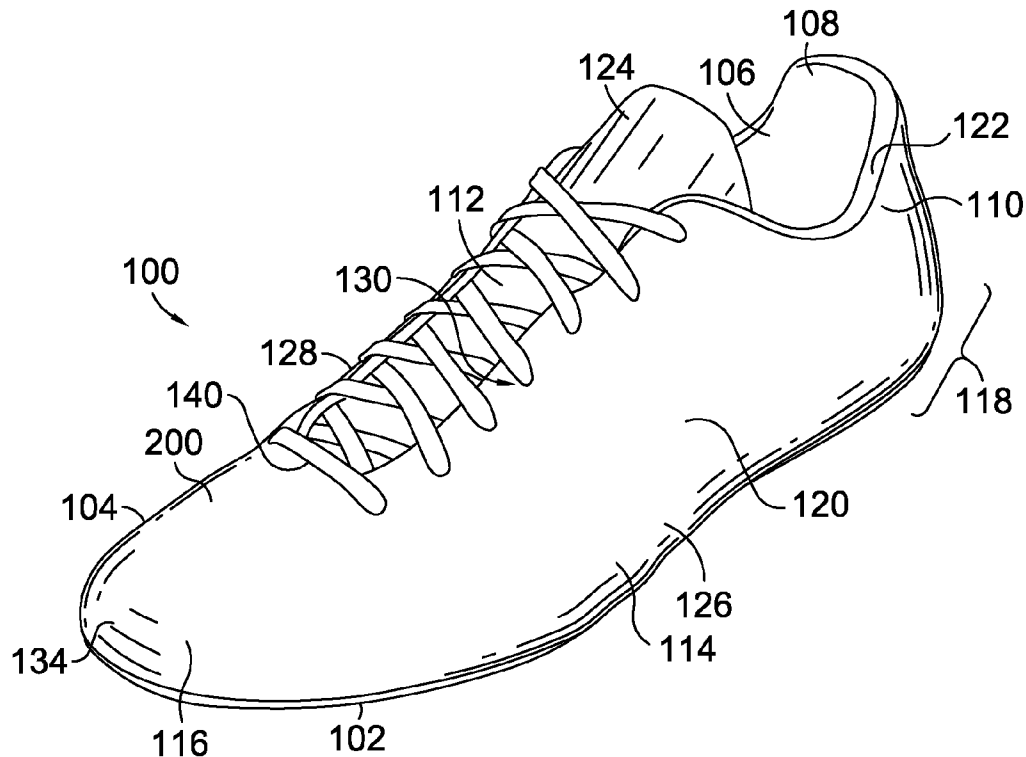
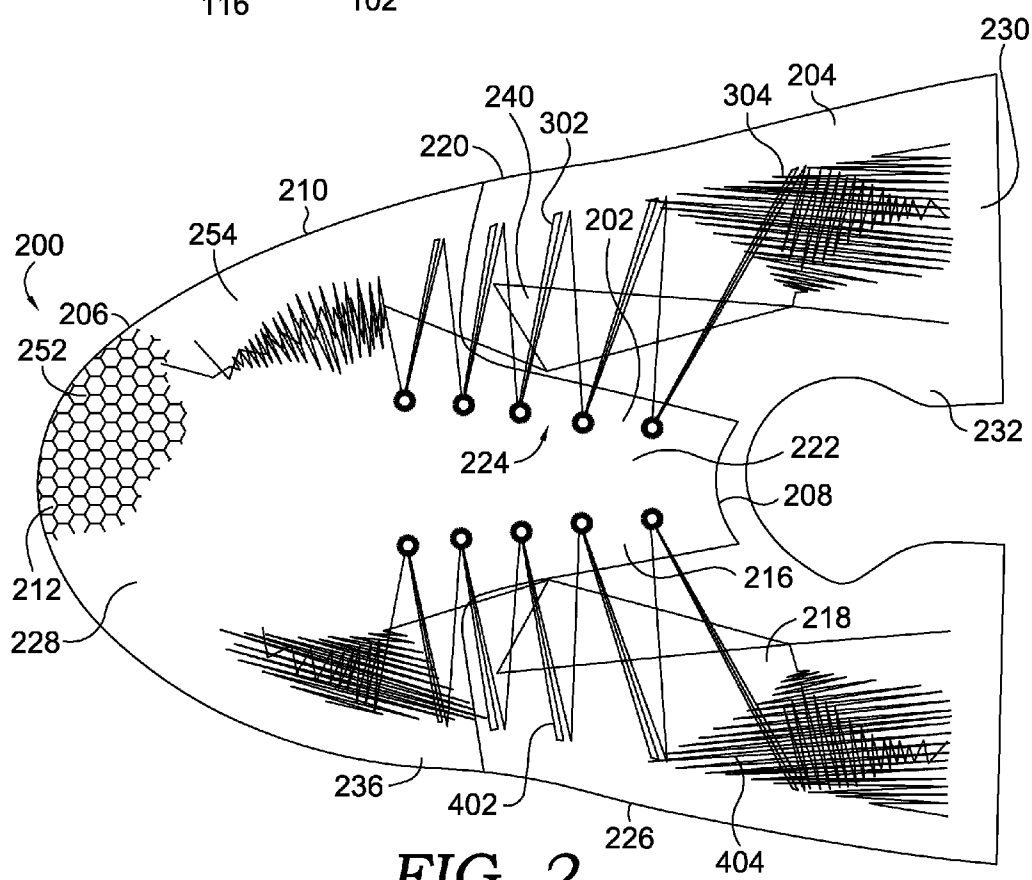
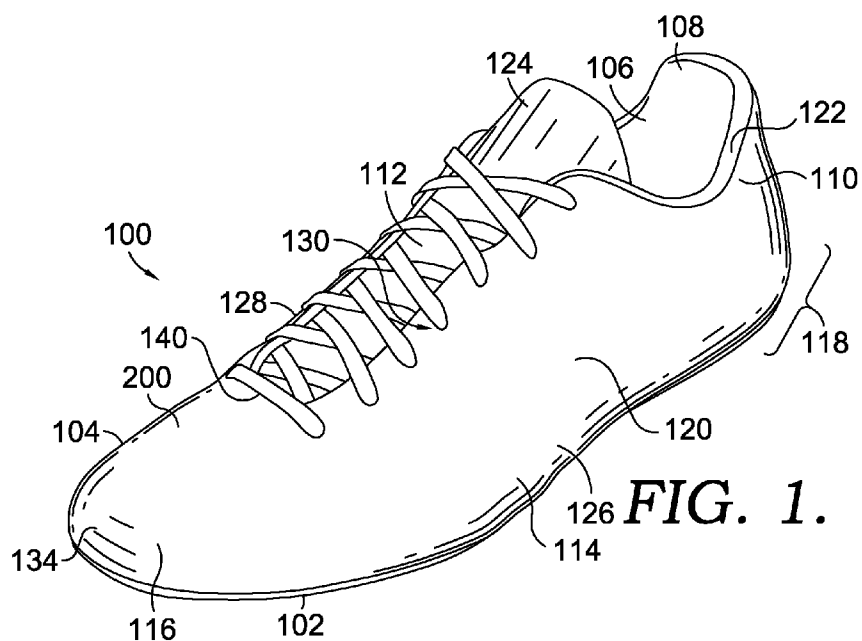


(43) **Pub. Date:** **May 19, 2016**





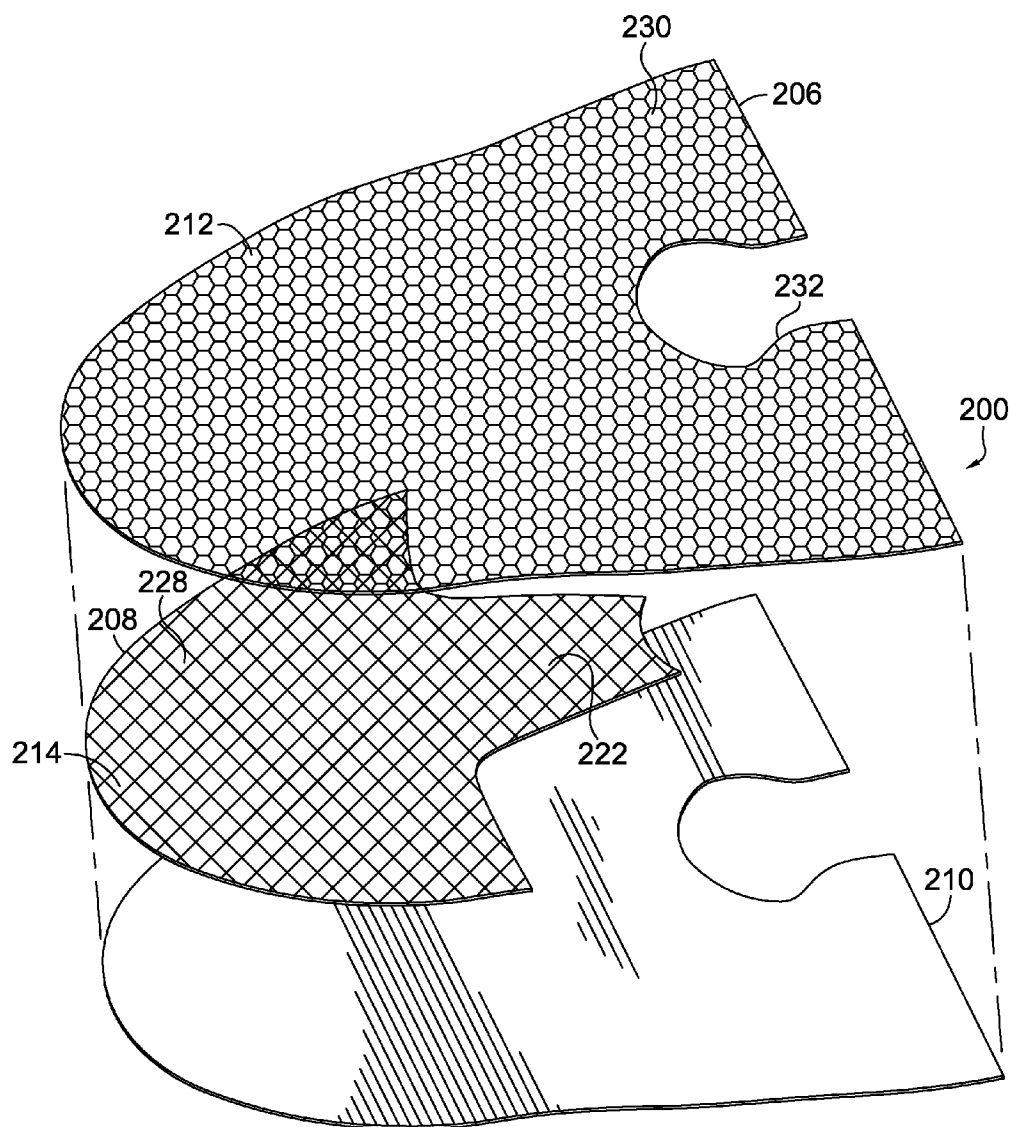
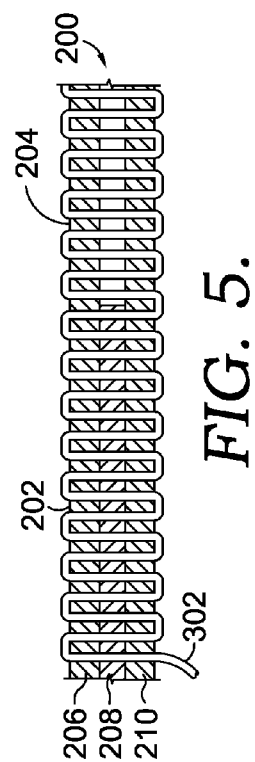
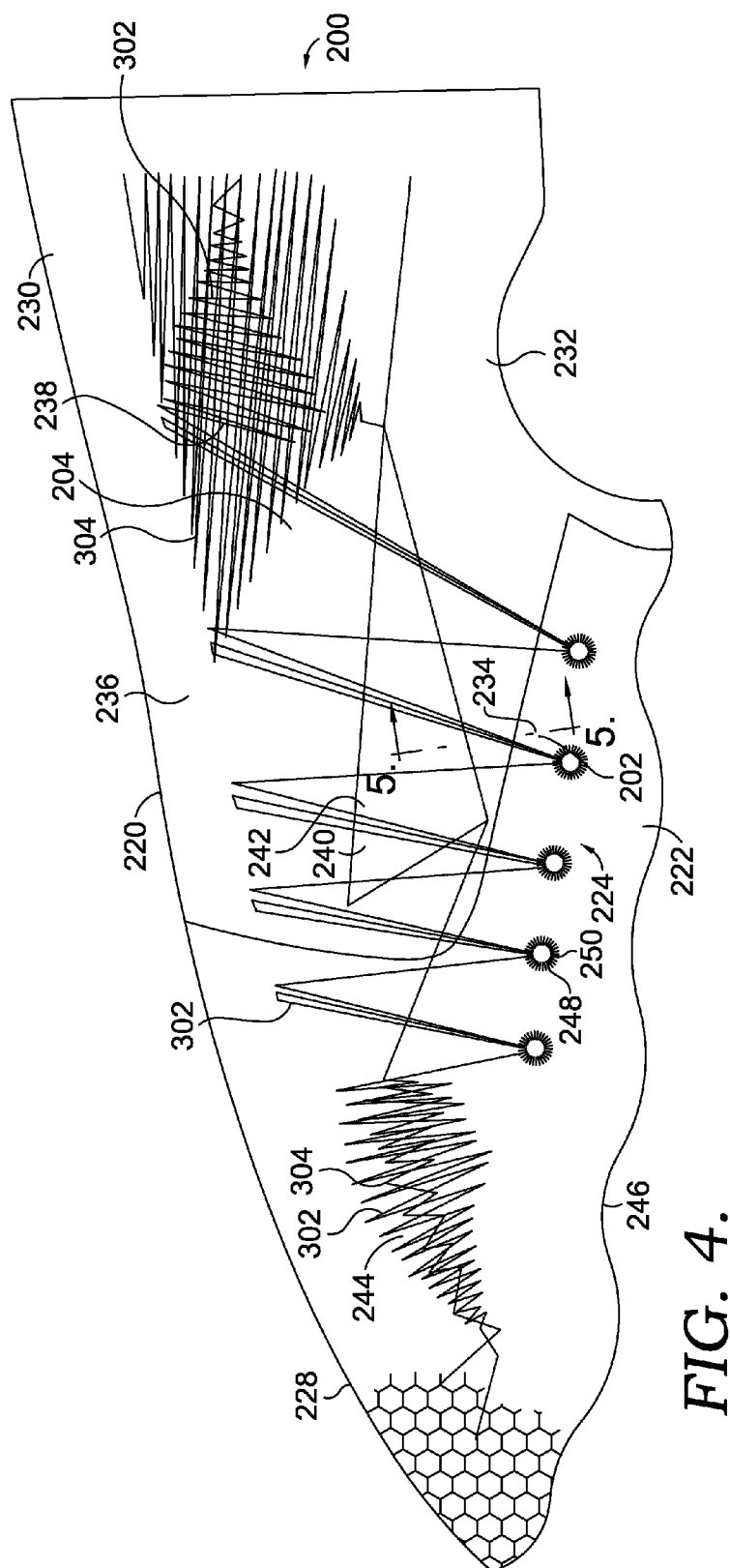


FIG. 3.



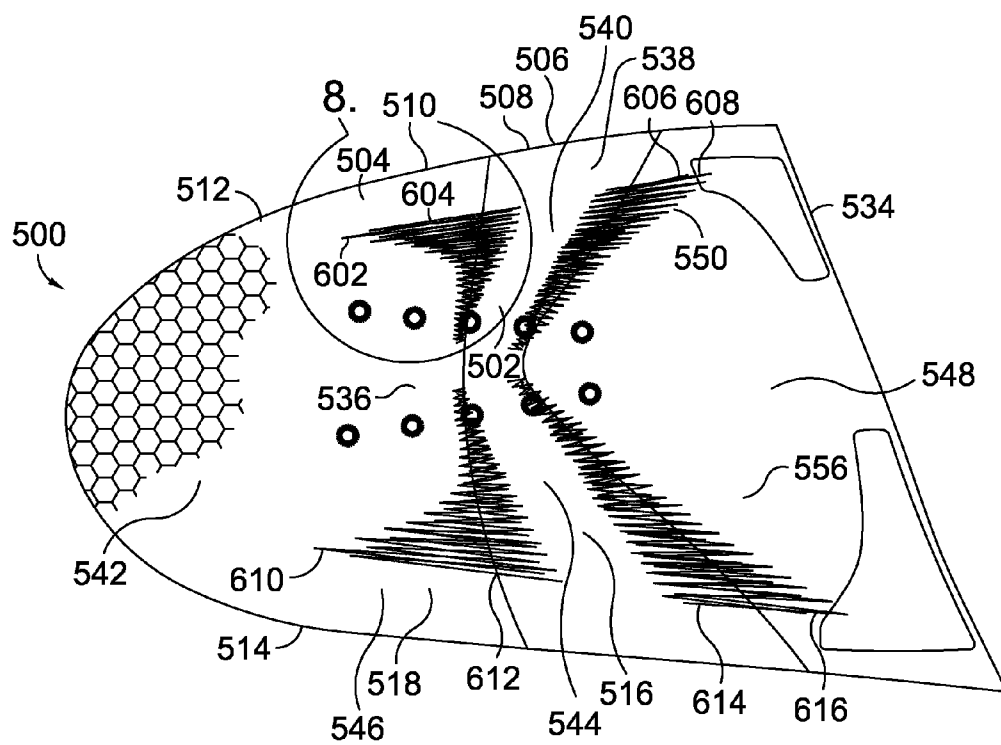


FIG. 6.

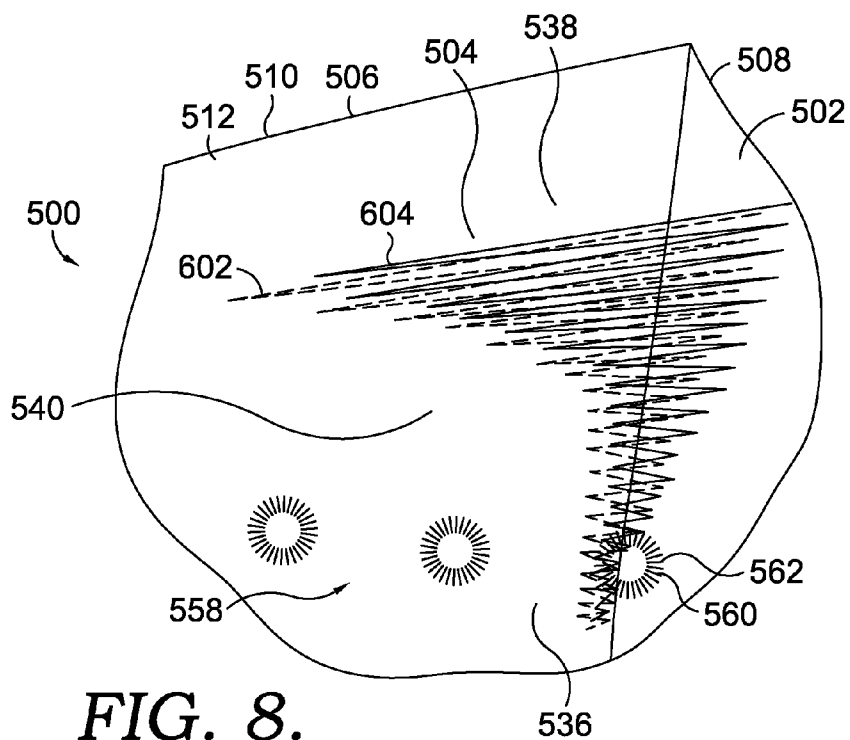


FIG. 8.

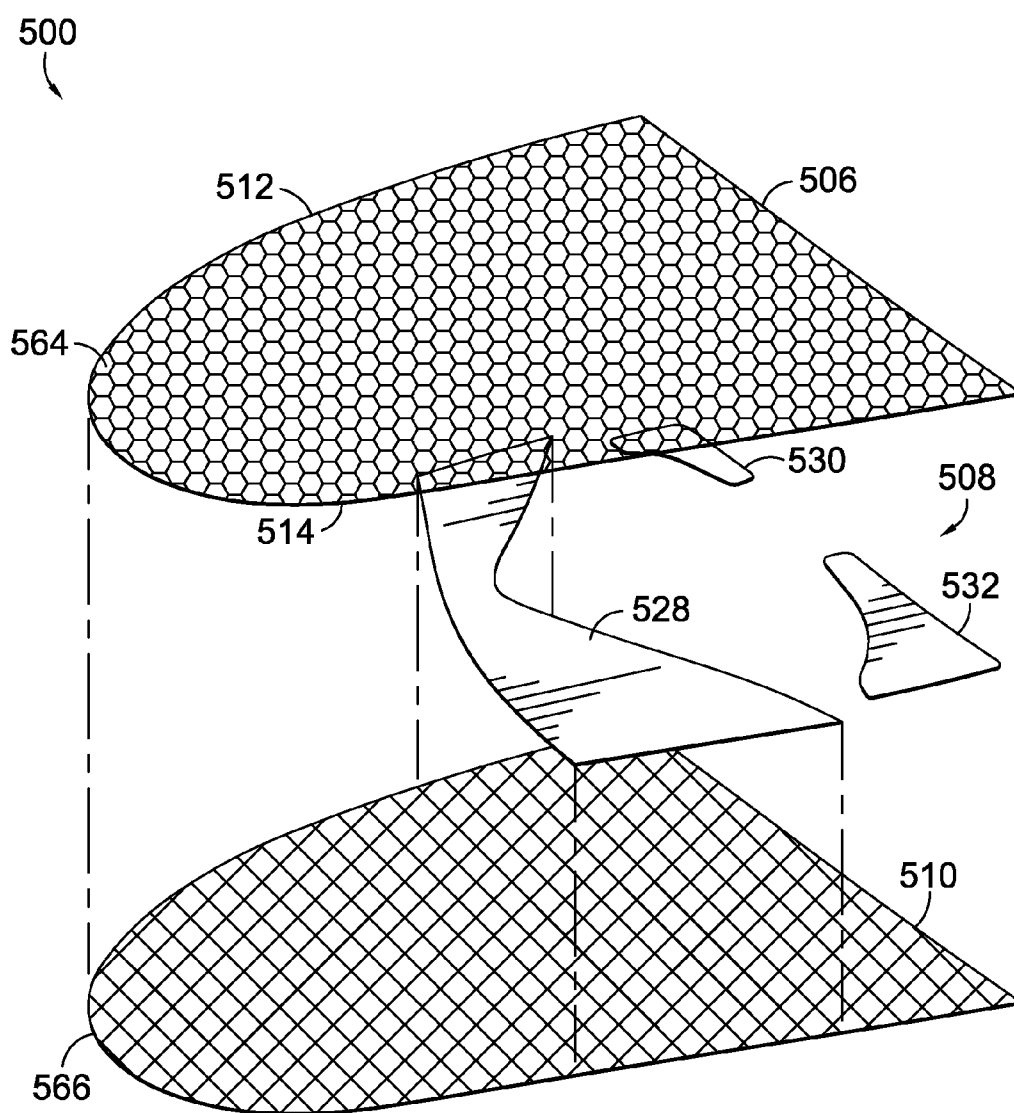


FIG. 7.

UPPER FOR AN ARTICLE OF FOOTWEAR

TECHNICAL FIELD

[0001] The present disclosure relates to an upper for an article of footwear. More particularly, the present disclosure relates to an upper having a multi-layered outer portion and at least one contiguous embroidery stitching.

BACKGROUND

[0002] An upper for an article of footwear can include several separate pieces of material connected together to form the upper, where at least some of the pieces of material are added for support and/or aesthetic purposes. However, various methods for connecting these several pieces of material together can be energy-intensive and/or material-intensive. It is desirable to have a minimalistic upper that includes functional and aesthetic properties, and that can be manufactured in a more efficient manner.

BRIEF SUMMARY

[0003] This Summary is provided to introduce a selection of concepts in a simplified form that are further described below in the Detailed Description. This Summary is not intended to identify key features or essential elements of the claimed subject matter, nor is it intended to be used as an aid in determining the scope of the claimed subject matter. Aspects herein are defined by the claims.

[0004] One aspect hereof is directed toward an upper that includes a multi-layered outer portion. The multi-layered outer portion includes a first region having an inner layer positioned between two outer layers, and a second region having the two outer layers. The multi-layered outer portion further includes at least one contiguous embroidery stitching that extends from the first region to the second region and couples the inner layer and two outer layers together in the first region and the two outer layers together in the second region.

[0005] Another aspect hereof is directed toward an upper that includes a multi-layered outer portion. The multi-layered outer portion includes a first region having an inner layer positioned between two outer layers, and a second region having the two outer layers. The multi-layered outer portion further includes a first contiguous embroidery stitching that extends from the first region to the second region and couples the inner layer and two outer layers together in the first region and the two outer layers together in the second region. In addition, the multi-layered outer portion includes a second contiguous embroidery stitching that extends from a position adjacent to a forefoot opening area to a sole perimeter area of the upper. At least a portion of the second contiguous embroidery stitching overlaps with at least a portion of the first contiguous embroidery stitching in the first region and in the second region.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] Aspects herein are described in detail with reference to the attached drawing figures, wherein:

[0007] FIG. 1 depicts a perspective view of an article of footwear, in accordance with aspects hereof;

[0008] FIG. 2 depicts a top view of a multi-layered outer portion of an upper for an article of footwear in a planar configuration, in accordance with aspects hereof;

[0009] FIG. 3 depicts an exploded view of the multi-layered outer portion depicted in FIG. 2, in accordance with aspects hereof;

[0010] FIG. 4 depicts a top view of the lateral side of the multi-layered outer portion depicted FIG. 2, in accordance with aspects hereof;

[0011] FIG. 5 depicts a cross-sectional view along outline 5-5 of the multi-layered outer portion depicted in FIG. 4, with a schematic representation of one contiguous embroidery stitching superimposed on the cross-sectional view, in accordance with aspects hereof;

[0012] FIG. 6 depicts a top view of another multi-layered outer portion of an upper for an article of footwear, in accordance with aspects hereof;

[0013] FIG. 7 depicts an exploded view of the multi-layered outer portion depicted in FIG. 6, in accordance with aspects hereof; and

[0014] FIG. 8 depicts a top view of the designated region of the multi-layered outer portion depicted in FIG. 6, in accordance with aspects hereof.

DETAILED DESCRIPTION

[0015] In general, aspects herein are directed toward an upper for an article of footwear, such as a shoe, that includes a multi-layered outer portion with at least one contiguous embroidery stitching. The contiguous embroidery stitching can couple various layers of the multi-layered outer portion together. The multi-layered outer portion and the contiguous embroidery stitching can form a minimalistic upper for a shoe while retaining important structural and functional properties. For example, in certain aspects, one contiguous embroidery stitching can overlap with another contiguous embroidery stitching to provide increased structural support and/or abrasion resistance to specific portions of the upper.

[0016] FIG. 1 depicts an article of footwear **100** in accordance with various aspects hereof. The article of footwear **100** has a general configuration suitable for various activities, such as walking, running, and the like. Exemplary articles of footwear may include athletic shoes, sandals, dress shoes, boots, loafers, and the like. The term “shoe” may be used herein for simplicity, in reference to various aspects of the articles of footwear. However, concepts described herein may be applied to a variety of other types of footwear.

[0017] The shoe **100** of FIG. 1 can generally include an upper **104** and a sole **102**. The sole **102** may include multiple components, such as one or more of an insole, a midsole, and an outsole. An insole can be an interior bottom of a shoe that sits directly beneath a person's foot under the footbed (commonly known as the sock liner). Insoles can be made from cellulosic paper board, synthetic nonwoven insole board, polymer-based materials, or the like. A midsole can be added underneath the insole for comfort; to control the shape, moisture, or smell of a shoe; or for managing defects in the natural shape of the foot or positioning of the foot during standing, walking, running, etc. Midsoles may be made or integrated from foam, foam-cushioning sheets, latex, ethylene-vinyl acetate (“EVA”), polyurethane, plastic, thermoplastic, or a blend thereof. An outsole can be connected to the bottom of the midsole. Outsoles are layers of a shoe made for directly contacting the ground. Casual or athletic shoes usually have outsoles made from natural rubber, plastic, or a synthetic material like polyurethane. The outsole may comprise a single piece of material or may be an assembly of separate pieces of different materials.

[0018] Generally, the upper 104 can be secured to the sole 102 and define a cavity 106 for receiving a foot. The upper 104 may be comprised of an outer portion 200 and an inner portion 108. In aspects, the inner portion 108 is a portion of the upper 104 that is in contact with at least a portion of a wearer's foot when positioned inside the cavity 106. The inner portion 108 may be affixed to the outer portion 200 in any manner known to one skilled in the art, such as by the use of stitching, adhesives, ultrasound, heat, and/or light. The inner portion 108 and the outer portion 200 can be affixed to one another at any location of the shoe 100. In an exemplary aspect, the inner portion 108 can be affixed to the outer portion 200 at or near the ankle collar 122 of the shoe 100.

[0019] The upper 104 can be divided into several general areas including: an ankle collar perimeter area 110, a forefoot opening area 112, a sole perimeter area 114, a toe box area 116, a heel area 118, and an intermediate area 120. The ankle collar perimeter area 110 can generally be defined as including the ankle collar 122 and, approximately, a 3 centimeter perimeter area around the ankle collar 122. The forefoot opening area 112 can generally be defined as including the opening for a tongue 124, the plurality of eyestays 130, and, approximately, a 3 cm perimeter around the plurality of eyestays 130. The sole perimeter area 114 can generally be defined as including, approximately, a 3 centimeter perimeter area of the upper 104 adjacent to the sole 102. The toe box area 116 can generally be defined as including the portion of the upper 104 from the toe-ward edge 140 of the forefoot opening area 112 to the toe end 134 of the shoe 100. The heel area 118 can generally be defined as including the portion of the upper 104 defined by the area identified in FIG. 1 that is between the sole perimeter area 114 and the ankle collar perimeter area 110. The intermediate area 120 can generally be defined as the area of the upper 104 that is distinct from the ankle collar perimeter area 110, the forefoot opening area 112, the sole perimeter area 114, the toe box area 116, and the heel area 118.

[0020] The shoe 100 also includes a lateral side 126 and a medial side 128. The lateral side 126 extends along a lateral side of a wearer's foot when in the cavity 106, and generally includes the ankle collar perimeter area 110, the forefoot opening area 112, the sole perimeter area 114, the toe box area 116, the heel area 118, and the intermediate area 120. The medial side 128 extends along a medial side of the wearer's foot when in the cavity 106, and also includes the ankle collar perimeter area 110, the forefoot opening area 112, the sole perimeter area 114, the toe box area 116, the heel area 118, and the intermediate area 120. The lateral side 126, the medial side 128, the ankle collar perimeter area 110, the forefoot opening area 112, the sole perimeter area 114, the toe box area 116, the heel area 118, and the intermediate area 120 are not intended to demarcate specific areas of the upper 104 and/or the shoe 100. Instead, they are intended to represent general areas of the upper 104 and/or the shoe 100 and are used for reference purposes for the following discussion.

[0021] FIG. 2 depicts a multi-layered outer portion 200 of an upper, e.g., the upper 104 of FIG. 1. The multi-layered outer portion 200 is one exemplary aspect of a multi-layered outer portion of an upper in accordance with aspects herein. Additional aspects of a multilayered outer portion are discussed below, such as that described with reference to FIGS. 6-8. The multi-layered outer portion 200 of FIG. 2 is depicted in a pre-constructed configuration, that is, in a configuration prior to being constructed into a shoe. Like the upper 104 of

FIG. 1, the multi-layered outer portion 200 can include a lateral side 220, a medial side 226, a forefoot opening area 222, a toe box area 228, a heel area 230, an ankle collar perimeter area 232, a sole perimeter area 236, and an intermediate area 240. Although the reference numerals for the aforementioned areas of the multi-layered outer portion 200 of FIG. 2 are different than the reference numerals of the similar named areas of the upper 104 of FIG. 1, these similar named areas of the multi-layered outer portion 200 generally have the same parameters as those discussed above with reference to the upper 104 of FIG. 1.

[0022] In the aspect depicted in FIG. 2, the multi-layered outer portion 200 can include at least two regions 202 and 204 that have different configurations of layers, in accordance with aspects hereof. For example, as discussed further below with reference to FIG. 3, the region 202 can include three layers of material stacked (e.g., layered) on top of one another so that an inner layer 208 is positioned between the outer layers 206 and 210. The region 204 can include the two outer layers 206 and 210 such that at least a portion of the outer layer 206 is in contact with at least a portion of the outer layer 210. As can be seen in FIG. 2, on the lateral side 220, at least a portion of the region 202 is adjacent to the forefoot opening area 222 and the plurality of eyestays 224, while at least a portion of the region 204 is positioned in the heel area 230.

[0023] The region 202 can be defined as any portion of the multi-layered outer portion 200 that includes the layers 206, 208, and 210. In such aspects, the region 202 can have a size of at least about 1 centimeter (cm²), 2 cm², 5 cm², 10 cm², or 15 cm², and/or not more than about 30 cm², 25 cm², 22 cm², or 20 cm². The region 204 can be defined as any portion of the multi-layered outer portion 200 that includes the outer layers 206 and 210. In certain aspects, the region 204 can be devoid of the inner layer 208. Like the region 202, the region 204 can have a size of at least about 1 cm², 2 cm², 5 cm², 10 cm², or 15 cm², and/or not more than about 30 cm², 25 cm², 22 cm², or 20 cm². In one or more aspects, the region 202 and/or the region 204 may not be a contiguous region of the multi-layered outer portion 200; rather, the region 202 and/or the region 204 may comprise at least two portions of the multi-layered outer portion 200 spaced apart from one another.

[0024] In aspects, one or more of the layers 206, 208, and 210 can include a mesh material. For example, the outer layer 206 can include a mesh material 212, as shown in the portion 252 of the outer layer 206 in FIG. 2. While, in aspects, the entire outer layer 206 can include a mesh material, only the portion 252 is shown in FIG. 2 in order to highlight other features of the multi-layered outer portion 200. The layers 206, 208, and 210 will be discussed further below with reference to FIG. 3.

[0025] The multi-layered outer portion 200 of FIG. 2 can include at least one contiguous embroidery stitching. For example, the lateral side 220 can include a contiguous embroidery stitching 302 and a contiguous embroidery stitching 304, where each contiguous embroidery stitching 302 and 304 is present in both the region 202 and the region 204. In the same or alternative aspects, the medial side 226 can include a contiguous embroidery stitching 402 and a contiguous embroidery stitching 404, where each contiguous embroidery stitching 402 and 404 is present in both the region 216 and 218. Like the region 202, the region 216 on the medial side 226 can include the inner layer 208 positioned between the outer layers 206 and 210. The region 218 can include the outer layers 206 and 210, like the region 204 on the lateral side 220.

The regions **216** and **218** can have the same size parameters as discussed above with respect to the regions **202** and **204**, respectively.

[0026] The contiguous embroidery stitchings **302**, **304**, **402**, and **404** can be formed manually or by a machine using any conventional embroidery stitching process. In an exemplary aspect, the contiguous embroidery stitchings **302**, **304**, **402**, and **404** can be formed by any commercially available embroidery machine. Generally, an embroidery stitching process can include the repeated securing of a thread to multiple locations on the multi-layered outer portion **200** while extending the thread between those multiple locations, where that portion of the thread extending between those multiple locations is visible on the outside of the multi-layered outer portion **200**, e.g., on the outer surface **254** of the layer **206**. The embroidery process can include the use of any common stitches known to one skilled in the art, such as satin stitches, fill stitches, or running stitches. Further, a lock stitch can be used to secure the thread of any of the common stitches to the multi-layered outer portion **200**. Such an overall process can include, for example, having a needle pass a loop of a first thread through the outer layer **206**, through the inner layer **208**, and through the outer layer **210**, where that loop of the first thread gets secured in place with a second thread on the side of the outer layer **210** that is opposite to that of the inner layer **208**. Subsequently, the needle passes another loop of the first thread through another location of the multi-layered outer portion **200**, which gets secured in place by the second thread. This process can be repeated to form any desired pattern on the multi-layered outer portion **200**.

[0027] FIG. 3 depicts an exploded view of the multi-layered outer portion **200** in the absence of the contiguous embroidery stitchings **302** and **304**, in accordance with aspects hereof. As discussed above, the multi-layered outer portion **200** can include an inner layer **208** positioned between a top outer layer **206** and a bottom outer layer **210**. In aspects, each of the top outer layer **206**, the inner layer **208**, and the bottom outer layer **210** can include one contiguous layer. In the aspect depicted in FIG. 3, the shape of the inner layer **208** results in the multi-layered outer portion **200** having a three layer structure in at least the toe box area **228** and the forefoot opening area **222**, and a two layer structure in at least the heel area **230** and the ankle collar perimeter area **232**.

[0028] In aspects, the top outer layer **206**, the inner layer **208**, and the bottom outer layer **210** can be any type of material commonly found in articles of footwear, such as a synthetic material, leather, imitation leather material, natural fiber material, or a combination thereof. Particular materials to be used as the top outer layer **206**, the inner layer **208**, and the bottom outer layer **210** can be chosen by one skilled in the art for a specific purpose. In certain aspects, materials can be chosen for use as one or more of the layers **206**, **208**, and **210** based on the material's stretch-ability, breathability, water resistance, and/or moisture wicking ability.

[0029] In aspects, the multi-layered outer portion **200** can include at least one mesh material. In certain aspects, at least two of the top outer layer **206**, the inner layer **208**, and the bottom outer layer **210** can include at least one mesh material. For example, as can be seen in FIG. 2, the top outer layer **206** can include a mesh material **212**, while the inner layer **208** can include a mesh material **214**. In one or more aspects, the mesh materials **212** and **214** can be structured different from one another, that is, the mesh materials **212** and **214** can have different mesh patterns and/or be made from different mate-

rials. The mesh materials **212** and/or **214** can be traditional mesh materials in the sense that the material includes visible holes in at least a portion of the material. Alternatively, the mesh materials **212** and/or **214** can be mesh-like materials, that is, a material that does not include visible holes but has a pattern that resembles a mesh. For example, a mesh-like material could have a region of increased fabric density surrounding a region of low fabric density to give the appearance that the region having the low fabric density is a hole. In aspects where at least one of the layers is a mesh or mesh-like material, at least one of the other layers can comprise a supportive material, such as a synthetic material, suede, or leather.

[0030] Turning now to FIG. 4, which depicts the lateral side **220** of the multi-layered outer portion **200** of FIG. 2. As discussed above, the lateral side **220** can include the contiguous embroidery stitchings **302** and **304**. The pattern of embroidery stitching provided by the contiguous embroidery stitchings **302** and **304** can impart various advantageous qualities to the shoe **100**. For example, the contiguous embroidery stitching **302** can extend from the forefoot opening area **222**, or a position **234** adjacent thereto, to the sole perimeter area **236**. Such a pattern of embroidery stitching can provide support to a shoe by distributing forces (e.g., compression forces from a lacing mechanism) from the forefoot opening area **222** to the sole perimeter area **236**, which can be coupled to a sole of the shoe, when in an as-constructed configuration.

[0031] As can be seen in FIG. 4, each of the contiguous embroidery stitchings **302** and **304** can generally extend from the toe box area **228** to the heel area **230**, in accordance with aspects hereof. In aspects, at least a portion of the contiguous embroidery stitching **302** can overlap with at least a portion of the contiguous embroidery stitching **304**. As used herein, the term "overlap" can describe a thread of one contiguous embroidery stitching extending across, intersecting, or coinciding with the thread of another contiguous embroidery stitching.

[0032] In certain aspects, the overlapping of the contiguous embroidery stitchings **302** and **304** can create portions of high density embroidery stitching that can impart increased structural support and/or provide increased wear resistance to the multi-layered outer portion **200**. In one or more aspects, the heel area **230** can include at least one portion having an increased density of embroidery stitching. For example, in a portion **238** of the heel area **230**, the contiguous embroidery stitching **302** can overlap with the contiguous embroidery stitching **304** several times so that the portion **238** includes an increased density of embroidery stitching relative to other portions of the multi-layered outer portion **200** having embroidery stitching, such as the portion **242** of the intermediate area **240**. As can be seen in FIG. 4, in the portion **238** of the heel area **230**, the contiguous embroidery stitching **302** overlaps with the contiguous embroidery stitching **304** in a transverse manner. For example, in the portion **238**, the contiguous embroidery stitching **304** generally extends toward the toe box area **228** and toward the heel area **230** in a zig-zag pattern, while the contiguous embroidery stitching **302** generally extends toward the ankle collar perimeter area **232** and the sole perimeter area **236** in a zig-zag pattern. In the same or alternative aspects, the overlapping of the contiguous embroidery stitchings **302** and **304** is not required to create portions having an increased density of embroidery stitching; rather, a single contiguous embroidery stitching can create a pattern of

embroidery stitching having an increased density relative to other portions of the multi-layered outer portion 200. The overlap of embroidery stitches is effective, in exemplary aspects, to provide structural integration of the different embroidery stitches. For example, at an overlap, a force transmitted through a first embroidery stitch is transferred to a second embroidery stitch allowing for a determined distribution of the force in one or more locations/directions.

[0033] In aspects, the toe box area 228 can also include a portion having an increased density of embroidery stitching, which can impart increased wear resistance for the multi-layered outer portion 200 as a result of the wear characteristics of the embroidery stitching material relative to the materials forming the underlying multi-layered outer portion 200. For example, the contiguous embroidery stitching 302 can overlap with the contiguous embroidery stitching 304 in the portion 244 of the toe box area 228 of FIG. 2. In the portion 244, each of the contiguous embroidery stitchings 302 and 304 generally extend toward the sole perimeter area 236 and the top 246 of the toe box area 228 in zig-zag patterns that overlap with one another. Such overlapping can create an increased density of embroidery stitching in the portion 244 relative to other areas of the multi-layered outer portion 200, such as the portion 242 of the intermediate area 240, which further enhances a wear resistance of the shoe in those locations having the embroidery.

[0034] As discussed above, in the region 202 of the multi-layered outer portion 200, the contiguous embroidery stitching 302 and/or the contiguous embroidery stitching 304 can couple at least a portion of the top outer layer 206, the inner layer 208, and the bottom outer layer 210 together. In addition, in the region 204 of the multi-layered outer portion 200, the contiguous embroidery stitching 302 and/or the contiguous embroidery stitching 304 can couple at least a portion of the top outer layer 206 and the bottom outer layer 210 together. In various areas of the multi-layered outer portion 200, the layers 206, 208, and 210, may be coupled together only by the contiguous embroidery stitching 302 and/or the contiguous embroidery stitching 304. That is, in certain aspects, no other coupling mechanism, aside from the contiguous embroidery stitchings 302 and/or 304, may be used in certain areas to secure the layers 206, 208, and 210 together. For example, as can be seen in FIG. 4, in the intermediate area 240 of the multi-layered outer portion 200, only the contiguous embroidery stitchings 302 and 304 couple the layers 206, 208, and 210 together, and in the region 204, only the contiguous embroidery stitchings 302 and 304 couple the layers 206 and 210 together.

[0035] In aspects, the multi-layered outer portion 200 can include a plurality of eyestays 224. In one or more aspects, each of the eyestays 224 may be formed by a separate embroidery stitching. For example, as best seen in FIG. 4, the eyestay 248 can include at least one embroidery stitching 250 that defines an opening for a shoe lace to be inserted therethrough. In one or more aspects, the embroidery stitching 250 is distinct from the contiguous embroidery stitching 302 and the contiguous embroidery stitching 304. In such aspects, at least a portion of the contiguous embroidery stitching 302 and/or the contiguous embroidery stitching 304 can overlap with at least a portion of the embroidery stitching 250, which may allow for the effective transfer of forces from the eyestay embroidery stitching 250 to the contiguous embroidery stitching 302 and/or to the contiguous embroidery stitching 304.

[0036] FIG. 5 depicts a cross-sectional view along outline 5-5 of FIG. 4 of the multi-layered outer portion 200, and includes a schematic representation of the contiguous embroidery stitching 302 superimposed on this cross-sectional depiction, in accordance with aspects hereof. FIG. 5 is not intended to represent the actual manner of stitching in the aspects hereof. Instead, FIG. 5 is provided to illustrate the concept that a contiguous embroidery stitching, such as the contiguous embroidery stitching 302, can extend through the various layers of the multi-layered outer portion 200 while connecting together different combinations of those layers in different regions. In addition, to better illustrate this concept, the top outer layer 206 and the inner layer 208 are not depicted as including a mesh material. As can be seen in FIG. 5, the region 202 includes the contiguous embroidery stitching 302, which extends through the top outer layer 206, the inner layer 208, and the bottom outer layer 210 in order to couple the layers 206, 208, and 210 together. Further, the contiguous embroidery stitching 302 extends from the region 202 into region 204 to couple the top outer layer 206 and the bottom outer layer 210 together.

[0037] FIG. 6 depicts a multi-layered outer portion 500 of an upper, such as an upper 104 for the shoe 100, in accordance with aspects hereof. Like the multi-layered outer portion 200 discussed above with reference to FIGS. 2-5, the multi-layered outer portion 500 is depicted in a pre-constructed configuration. The multi-layered outer portion 500 can include a lateral side 512, a medial side 514, a heel area 534, a forefoot opening area 536, a sole perimeter area 538, an intermediate area 540, a toe box area 542, and an ankle collar perimeter area 548. Although the reference numerals for the aforementioned areas of the multi-layered outer portion 500 are different than the reference numerals of the similar named areas of the upper 104 of FIG. 1, these areas of the multi-layered outer portion 500 generally have the same parameters as those discussed above with reference to the upper 104 of FIG. 1.

[0038] The multi-layered outer portion 500 can include at least two regions having different configurations of layers. For example, as discussed further below with reference to FIG. 7, the lateral side 512 of the outer portion 500 can include a region 502 having three layers of material stacked on top of one another so that an inner layer 508 is positioned between two outer layers 506 and 510. In addition, the region 504 of the lateral side 512 can include the layers 506 and 510 stacked on top of one another. In such aspects, the region 504 may be devoid of the inner layer 508. The medial side 514 of the multi-layered outer portion 500 can include a region 516 having the inner layer 508 positioned between the outer layers 506 and 510, while a region 518 can include the outer layers 506 and 510.

[0039] The multi-layered outer portion 500 can include at least one contiguous embroidery stitching. For example, the lateral side 512 of the multi-layered outer portion 500 can include four contiguous embroidery stitchings 602, 604, 606, and 608. As discussed further below with reference to FIG. 8, the contiguous embroidery stitchings 602 and 604 can overlap in at least a portion of the regions 502 and 504. Similarly, the contiguous embroidery stitchings 606 and 608 can overlap in at least a portion of the regions 502 and 550. The medial side 514 can also include four contiguous embroidery stitchings, with the contiguous embroidery stitchings 610 and 612 overlapping in the regions 544 and 546, and the contiguous embroidery stitchings 614 and 616 overlapping in the regions 544 and 556. The regions 502, 504, 544, 546, 550, and 556

can have the same size characteristics as the regions 202 and 204 discussed above with reference to FIG. 2. The contiguous embroidery stitchings 602, 604, 606, 608, 610, 612, 614, and 616 can be formed using the embroidery stitching processes discussed above with reference to FIG. 2.

[0040] FIG. 7 depicts an exploded view of the multi-layered outer portion 500 in the absence of contiguous embroidery stitchings, in accordance with aspects hereof. The layers 506, 508, and 510 can be any type of material commonly found in articles of footwear, such as a synthetic material, leather material, imitation leather material, natural fiber material, or a combination thereof. Specific materials that can be used as the layers 506, 508, and 510 can be chosen by one skilled in the art for a particular purpose. In certain aspects, specific materials can be chosen based on the material's stretch-ability, breathability, water resistance, and/or moisture wicking ability.

[0041] In aspects, the multi-layered outer portion 500 can include at least one mesh or mesh-like material. For example, as illustrated in FIG. 7, the outer layers 506 and 510 can include the mesh materials 564 and 566, respectively. In such aspects, the mesh material 564 of the layer 506 can be structured differently than the mesh material 566 of the layer 510. In aspects not depicted in the figures, each of the layers 506, 508, and 510 can include a mesh or mesh-like material. The mesh and mesh-like materials that can be used as any one of the layers 506, 508, and 510 can have the same properties as the mesh and mesh-like materials discussed above with reference to the layers 206, 208, and 210 of FIG. 3.

[0042] In one or more aspects, each of the outer layers 506 and 510 can be one contiguous material, while the inner layer 508 can include multiple portions of material spaced apart from one another. As can be seen in FIG. 7, the portion 528 of the inner layer 508 can extend from the lateral side 512 to the medial side 514 of the multi-layered outer portion 500. In addition, the portion 530 of the inner layer 508 can be positioned on the lateral side 512, while the portion 532 of the inner layer 508 can be positioned on the medial side 514, so that the portions 528, 530, and 532 are not in direct contact with each other.

[0043] FIG. 8 depicts the encircled area of the outer portion 500 identified in FIG. 6. As discussed above, the lateral side 512 can include the contiguous embroidery stitchings 602 and 604, which are generally present in the forefoot opening area 536, the intermediate area 540, and the sole perimeter area 538, in accordance with aspects hereof. The contiguous embroidery stitchings 602 and 604 can couple the top outer layer 506, the inner layer 508, and the bottom outer layer 510 together in the region 502, and couple the top outer layer 506 and the bottom outer layer 510 together in the region 504.

[0044] In aspects, such as that depicted in FIGS. 6 and 8, the contiguous embroidery stitchings 602 and 604 can overlap with one another. For example, each of the contiguous embroidery stitchings 602 and 604 generally extend toward the heel area 534 and the toe box area 542 in zig-zag patterns while overlapping with one another. Such overlapping can create a portion of increased density of embroidery stitching so as to provide structural support for an upper, such as the upper 104, when in an as-constructed configuration. Other regions of the multi-layered outer portion 500 that include overlapping embroidery stitching, such as the regions 544, 546, 550, and 556 discussed above, can further impart structural support for a shoe upper.

[0045] As can be seen in FIG. 8, the multi-layered outer portion 500 can include a plurality of eyestays 558. In aspects, each of the eyestays 558 can be formed by a separate embroidery stitching. For example, the eyestay 560 can include at least one embroidery stitching 562 that defines an opening for a shoe lace to be inserted therethrough. In one or more aspects, the contiguous embroidery stitching 562 is distinct from the contiguous embroidery stitching 602 and the contiguous embroidery stitching 604. In such aspects, at least a portion of the contiguous embroidery stitching 602 and/or the contiguous embroidery stitching 604 can overlap with at least a portion of the embroidery stitching 562, which can provide an effective transfer of force (e.g., forces presented by a lacing operation) from the eyestay 560 to the contiguous embroidery stitching 562, in an exemplary aspect.

[0046] The following listing of exemplary aspects supports and is supported by the discussion provided herein.

[0047] Aspect 1

[0048] An upper for an article of footwear, the upper comprising a multi-layered outer portion comprising a first region and a second region, the first region comprising a first layer, a second layer, and a third layer, the second region comprising the first and third layers; and at least one contiguous embroidery stitching extending from the first region to the second region, wherein the at least one contiguous embroidery stitching couples the first, second, and third layers together in the first region, and wherein the at least one contiguous embroidery stitching couples the first and third layers together in the second region.

[0049] Aspect 2

[0050] The upper according to aspect 1, further comprising a forefoot opening area and a sole perimeter area, wherein the at least one contiguous embroidery stitching extends from a position adjacent to the forefoot opening area to the sole perimeter area.

[0051] Aspect 3

[0052] The upper according to aspect 1, wherein the at least one contiguous embroidery stitching comprises a first contiguous embroidery stitching and a second contiguous embroidery stitching, wherein at least a portion of the first contiguous embroidery stitching overlaps with at least a portion of the second contiguous embroidery stitching.

[0053] Aspect 4

[0054] The upper according to aspect 1, wherein the at least one contiguous embroidery stitching comprises a first portion having a first density of embroidery stitching and a second portion having a second density of embroidery stitching, the first density of embroidery stitching being more dense than the second density of embroidery stitching, wherein the at least one contiguous embroidery stitching comprises a first contiguous embroidery stitching and a second contiguous embroidery stitching, and wherein at least a portion of the first and second contiguous embroidery stitchings overlap in the first portion.

[0055] Aspect 5

[0056] The upper according to aspect 4, further comprising a toe box area, wherein at least a portion of the first density of embroidery stitching is positioned in the toe box area.

[0057] Aspect 6

[0058] The upper according to aspect 1, wherein the second layer comprises one contiguous layer.

[0059] Aspect 7

[0060] The upper according to aspect 1, wherein the second layer comprises at least two separate portions spaced apart from one another.

[0061] Aspect 8

[0062] The upper according to aspect 1, wherein at least two of the first layer, the second layer, and the third layer comprise at least one mesh material.

[0063] Aspect 9

[0064] The upper according to aspect 8, wherein the at least one mesh material comprises a first mesh material and a second mesh material, the first and second mesh materials being different from one another, and wherein the first and second mesh materials are present on separate layers of the upper.

[0065] Aspect 10

[0066] The upper according to aspect 1, further comprising a forefoot opening area, a sole perimeter area, a toe box area, an ankle collar perimeter area, a heel area, and an intermediate area, wherein, in the intermediate area, the first, second, and third layers of the first region are coupled to one another only by the at least one contiguous embroidery stitching, and wherein, in the intermediate area, the first and third layers of the second region are coupled to one another only by the at least one contiguous embroidery stitching.

[0067] Aspect 11

[0068] The upper according to aspect 1, further comprising a plurality of eyestays, wherein at least a portion of the first region is adjacent to at least a portion of the plurality of eyestays.

[0069] Aspect 12

[0070] An upper for an article of footwear, the upper comprising a multi-layered outer portion comprising a first region and a second region, the first region comprising a first layer, a second layer, and a third layer, the second region comprising the first layer and the third layer; a first contiguous embroidery stitching extending from the first region to the second region, wherein the first contiguous embroidery stitching couples the first, second, and third layers together in the first region, and wherein the first contiguous embroidery stitching couples the first and third layers together in the second region; and a second contiguous embroidery stitching that extends from a position adjacent to a forefoot opening area to a sole perimeter area of the upper, wherein at least a portion of the second contiguous embroidery stitching overlaps with: 1) at least a portion of the first contiguous embroidery stitching in the first region; and 2) at least a portion of the first contiguous embroidery stitching in the second region.

[0071] Aspect 13

[0072] The upper according to aspect 12, wherein at least a portion of the first contiguous embroidery stitching overlaps with at least a portion of the second contiguous embroidery stitching in at least a heel area of the upper.

[0073] Aspect 14

[0074] The upper according to aspect 13, wherein at least a portion of the second region is positioned in at least a portion of the heel area of the upper.

[0075] Aspect 15

[0076] The upper according to aspect 12, wherein at least a portion of the first contiguous embroidery stitching overlaps with at least a portion of the second contiguous embroidery stitching in at least a toe box area of the upper.

[0077] Aspect 16

[0078] The upper according to aspect 12, further comprising a plurality of eyestays, wherein at least a portion of the first region is adjacent to at least a portion of the plurality of eyestays.

[0079] Aspect 17

[0080] The upper according to aspect 12, further comprising an ankle collar perimeter area, a toe box area, a heel area, and an intermediate area, wherein, in the intermediate area, the first and third layers of the second region are coupled to one another only by the first and second contiguous embroidery stitchings.

[0081] Aspect 18

[0082] The upper according to aspect 12, wherein at least two of the first layer, the second layer, and the third layer comprise at least one mesh material.

[0083] Aspect 19

[0084] The upper according to aspect 18, wherein the at least one mesh material comprises a first mesh material and a second mesh material, the first and second mesh materials being different from one another, wherein the first and second mesh materials are present on separate layers of the upper.

[0085] Aspect 20

[0086] The upper according to aspect 12, wherein the second layer comprises at least two separate portions spaced apart from one another.

[0087] From the foregoing, it will be seen that aspects herein are well adapted to attain all the ends and objects hereinabove set forth together with other advantages which are obvious and which are inherent to the structure.

[0088] It will be understood that certain features and sub-combinations are of utility and may be employed without reference to other features and subcombinations. This is contemplated by and is within the scope of the claims.

[0089] Since many possible aspects may be made without departing from the scope thereof, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

[0090] While specific elements and steps are discussed in connection to one another, it is understood that any element and/or steps provided herein is contemplated as being combinable with any other elements and/or steps regardless of explicit provision of the same while still being within the scope provided herein. Since many possible aspects may be made of the disclosure without departing from the scope thereof, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

1. An upper for an article of footwear, the upper comprising:

- a multi-layered outer portion comprising a first region and a second region,
- the first region comprising a first layer, a second layer, and a third layer,
- the second region comprising the first and third layers; and

at least one contiguous embroidery stitching extending from the first region to the second region, wherein the at least one contiguous embroidery stitching couples the first, second, and third layers together in the first region, and wherein the at least one contiguous embroidery stitching couples the first and third layers together in the second region.

2. The upper according to claim 1, further comprising a forefoot opening area and a sole perimeter area, wherein the at least one contiguous embroidery stitching extends from a position adjacent to the forefoot opening area to the sole perimeter area.

3. The upper according to claim 1, wherein the at least one contiguous embroidery stitching comprises a first contiguous embroidery stitching and a second contiguous embroidery stitching, wherein at least a portion of the first contiguous embroidery stitching overlaps with at least a portion of the second contiguous embroidery stitching.

4. The upper according to claim 1, wherein the at least one contiguous embroidery stitching comprises a first portion having a first density of embroidery stitching and a second portion having a second density of embroidery stitching, the first density of embroidery stitching being more dense than the second density of embroidery stitching, wherein the at least one contiguous embroidery stitching comprises a first contiguous embroidery stitching and a second contiguous embroidery stitching, and wherein at least a portion of the first and second contiguous embroidery stitchings overlap in the first portion.

5. The upper according to claim 4, further comprising a toe box area, wherein at least a portion of the first density of embroidery stitching is positioned in the toe box area.

6. The upper according to claim 1, wherein the second layer comprises one contiguous layer.

7. The upper according to claim 1, wherein the second layer comprises at least two separate portions spaced apart from one another.

8. The upper according to claim 1, wherein at least two of the first layer, the second layer, and the third layer comprise at least one mesh material.

9. The upper according to claim 8, wherein the at least one mesh material comprises a first mesh material and a second mesh material, the first and second mesh materials being different from one another, and wherein the first and second mesh materials are present on separate layers of the upper.

10. The upper according to claim 1, further comprising a forefoot opening area, a sole perimeter area, a toe box area, an ankle collar perimeter area, a heel area, and an intermediate area, wherein, in the intermediate area, the first, second, and third layers of the first region are coupled to one another only by the at least one contiguous embroidery stitching, and wherein, in the intermediate area, the first and third layers of the second region are coupled to one another only by the at least one contiguous embroidery stitching.

11. The upper according to claim 1, further comprising a plurality of eyestays, wherein at least a portion of the first region is adjacent to at least a portion of the plurality of eyestays.

12. An upper for an article of footwear, the upper comprising:

a multi-layered outer portion comprising a first region and a second region,

the first region comprising a first layer, a second layer, and a third layer,

the second region comprising the first layer and the third layer;

a first contiguous embroidery stitching extending from the first region to the second region, wherein the first contiguous embroidery stitching couples the first, second, and third layers together in the first region, and wherein the first contiguous embroidery stitching couples the first and third layers together in the second region; and

a second contiguous embroidery stitching that extends from a position adjacent to a forefoot opening area to a sole perimeter area of the upper, wherein at least a portion of the second contiguous embroidery stitching overlaps with: 1) at least a portion of the first contiguous embroidery stitching in the first region; and 2) at least a portion of the first contiguous embroidery stitching in the second region.

13. The upper according to claim 12, wherein at least a portion of the first contiguous embroidery stitching overlaps with at least a portion of the second contiguous embroidery stitching in at least a heel area of the upper.

14. The upper according to claim 13, wherein at least a portion of the second region is positioned in at least a portion of the heel area of the upper.

15. The upper according to claim 12, wherein at least a portion of the first contiguous embroidery stitching overlaps with at least a portion of the second contiguous embroidery stitching in at least a toe box area of the upper.

16. The upper according to claim 12, further comprising a plurality of eyestays, wherein at least a portion of the first region is adjacent to at least a portion of the plurality of eyestays.

17. The upper according to claim 12, further comprising an ankle collar perimeter area, a toe box area, a heel area, and an intermediate area, wherein, in the intermediate area, the first and third layers of the second region are coupled to one another only by the first and second contiguous embroidery stitchings.

18. The upper according to claim 12, wherein at least two of the first layer, the second layer, and the third layer comprise at least one mesh material.

19. The upper according to claim 18, wherein the at least one mesh material comprises a first mesh material and a second mesh material, the first and second mesh materials being different from one another, wherein the first and second mesh materials are present on separate layers of the upper.

20. The upper according to claim 12, wherein the second layer comprises at least two separate portions spaced apart from one another.

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