A shoe according to embodiments of the present invention includes an upper, a footbed including a wing that extends around at least a portion of a periphery of the footbed, with the upper attached to the wing, and an outsole configured to receive the upper and the footbed. The wing may be bendable away from the footbed to permit easy and sturdy stitching of the upper to the footbed. The wing may extend beyond a bottom surface of the footbed, and an intermediate piece may be placed under the footbed before the footbed and upper are attached to an outsole, such that the intermediate piece substantially fills the space between the footbed and the outsole.
FORM FOOTBED WITH WING AROUND FOOTBED PERIPHERY 1302

BEND WING OUTWARDLY 1304

STITCH UPPER TO WING 1306

INCLUDE INTERMEDIATE PIECE UNDER FOOTBED 1308

ADHERE INTERMEDIATE PIECE TO FOOTBED 1310

ADHERE UPPER AND FOOTBED TO OUTSOLE 1312

FIG.13
SYSTEMS AND METHODS FOR SHOE CONSTRUCTION

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims the benefit of U.S. Provisional Patent Application Ser. No. 60/891,672, filed Feb. 26, 2007, which is herein incorporated by reference in its entirety.

TECHNICAL FIELD

[0002] Embodiments of the present invention relate generally to footwear, and more specifically to systems and methods for easily stitching shoe uppers to footbeds and/or constructing shoe components of lightweight moldable materials with little or no glue application between horizontal footbed layers.

BACKGROUND

[0003] Molded shoes and shoes with molded components continue to gain popularity, at least in part because they provide a high level of comfort. For example, many wearers find CROCS™ brand molded foam footwear to be extremely comfortable to wear both in leisure and in work conditions, and particularly for prolonged periods of standing or walking on hard surfaces. CROCS™ brand molded foam footwear is often injection molded or otherwise constructed with CROSSTITE™, a proprietary closed-cell resin of CROCS, Inc., 6328 Monarch Park Place, Niwot, Colo., 80503, USA; other molded footwear may comprise ethyl vinyl acetate (“EVA”), plastic, rubber, or other moldable materials with varying levels of comfort, for example. However, molded shoes may often possess a casual or informal appearance.

[0004] Traditional non-molded or slip-last shoes, on the other hand, are often stiff and hard under a wearer’s foot, and are often heavier than molded shoes. The soles of such traditional non-molded shoes are often constructed of several layers laminated together with glue, which hardens to form a hard and heavy sole. For example, in a slip-last shoe, the upper often includes a fabric portion (e.g. a “sock” portion) the perimeter of which is attached to the lower perimeter of the upper, and to which an insole insert may be glued on the inside of the upper. A shank or other stiffening layer or element may be glued under the fabric portion, and the upper (with insole) may then be glued to an outsole. At each step along the way, glue is added between layers, which increases the weight and decreases the overall comfort of the sole.

SUMMARY

[0005] A shoe according to embodiments of the present invention includes an upper, a footbed with a wing that extends around at least a portion of a periphery of the footbed and to which an upper is attached, and an outsole configured to receive the upper and the footbed. An intermediate piece may be included between the footbed and the outsole, such that the intermediate piece substantially fills a space between the footbed and the outsole. The footbed may also include a top surface and a bottom surface, such that the wing attaches to the footbed near the top surface and is longer than a distance between the top surface and the bottom surface. According to such embodiments, the intermediate piece may have a thickness substantially the same as the distance between the bottom surface of the footbed and a bottom edge of the wing.

[0006] According to some embodiments of the present invention, the upper is stitched or Strobel stitched to the wing. An adhesive creates a seal, such as, for example, a waterproof seal, between an interior space of the shoe and an exterior of the shoe, wherein the seal is a substantially waterproof seal. The footbed, the outsole, and/or the intermediate piece may be formed of a moldable foam material such as, for example, the same moldable foam material. The footbed and the wing may also be formed of a single continuous piece of molded foam material. According to some embodiments of the present invention, an acute angle is formed between the footbed and the wing; the acute angle may be, for example, ten to fifteen degrees or five to thirty degrees.

[0007] A shoe according to other embodiments of the present invention includes a footbed with a top surface and a bottom surface and formed of a moldable foam material, an upper attached to the footbed around a periphery of the footbed, an outsole having a bottom part and formed at least partially of the moldable foam material, and an intermediate piece for insertion between the footbed and the outsole. According to such embodiments, the intermediate piece includes a top portion and a bottom portion, and the top surface, the bottom surface, the bottom part, the top portion, and the bottom portion are substantially free of adhesive which makes the shoe more comfortable. According to such embodiments, the footbed comprises a wing that extends around at least a portion of the periphery of the footbed, and the upper is attached to the wing.

[0008] Methods for constructing shoes according to embodiments of the present invention include forming a footbed with a wing portion extending around a periphery of the footbed, stitching an upper to the wing portion, including an intermediate portion below the footbed, and adhering the footbed and the upper to an outsole. Stitching the upper to the wing portion includes bending the wing portion away from the footbed during stitching, according to embodiments of the present invention. Methods according to such embodiments may further include adhering an inner surface of the wing to an interior surface of the footbed.

[0009] Embodiments of the present invention include systems and methods for forming and attaching a molded sole, such as a foam injection molded sole, on an upper in a way which results in little or no glue applied to horizontal surfaces between layers of the sole. According to embodiments of the present invention, a method for constructing shoes includes forming a footbed with a wing portion extending around a periphery of the footbed, bending the wing portion outwardly from the footbed, and stitching an upper to the wing portion. Such embodiments may further include placing an intermediate portion below the footbed and adhering the footbed and upper to an outsole.

[0010] While multiple embodiments are disclosed, still other embodiments of the present invention will become apparent to those skilled in the art from the following detailed description, which shows and describes illustrative embodiments of the invention. Accordingly, the drawings and detailed description are to be regarded as illustrative in nature and not restrictive.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] FIG. 1 illustrates a side view of a shoe according to embodiments of the present invention.

[0012] FIG. 2 illustrates a bottom perspective view of a shoe according to embodiments of the present invention.
FIG. 3 illustrates an exploded perspective view of a shoe according to embodiments of the present invention.

FIG. 4 illustrates another exploded perspective view of a shoe according to embodiments of the present invention.

FIG. 5 illustrates a top view of a footbed according to embodiments of the present invention.

FIG. 6 illustrates a bottom view of a footbed according to embodiments of the present invention.

FIG. 7 illustrates a side perspective view of a footbed according to embodiments of the present invention.

FIG. 8 illustrates a perspective view showing how a side wing of a footbed may be bent and/or positioned to permit stitching of an upper to the footbed according to embodiments of the present invention.

FIG. 9 illustrates a partial cross sectional view of the footbed of FIG. 5 taken along line A-A of FIG. 5, according to embodiments of the present invention.

FIG. 9b illustrates a partial cross sectional view of the footbed with an alternative configuration, according to embodiments of the present invention.

FIG. 10 illustrates an upper stitched to a footbed according to embodiments of the present invention.

FIG. 11 illustrates an upper stitched to a footbed, with glue applied around a perimeter of the upper in preparation for attachment to an outer sole, according to embodiments of the present invention.

FIG. 12 illustrates an outsole according to embodiments of the present invention.

FIG. 13 depicts a flow chart illustrating a shoe construction method, according to embodiments of the present invention.

While the invention is amenable to various modifications and alternative forms, specific embodiments have been shown by way of example in the drawings and are described in detail below. The intention, however, is not to limit the invention to the particular embodiments described. On the contrary, the invention is intended to cover all modifications, equivalents, and alternatives falling within the scope of the invention as defined by the appended claims.

DETAILED DESCRIPTION

FIG. 1 illustrates a side view and FIG. 2 illustrates a bottom perspective view of a shoe 100 according to embodiments of the present invention. Shoe 100 includes a front end 102 and a back end 104. FIG. 3 illustrates an exploded bottom perspective view, and FIG. 4 illustrates an exploded top perspective view of shoe 100, according to embodiments of the present invention. Embodiments of shoe 100 include an upper 302, a footbed 304, an intermediate piece 306, and an outsole 308. According to embodiments of the present invention, upper 302 may be stitched or otherwise attached to footbed 304, and intermediate piece 306 may be inserted under footbed 304 before footbed 304 is glued or otherwise attached to outsole 308.

Upper 302 may be constructed of a fabric or leather material and, based on the disclosure herein, one of ordinary skill in the art will recognize the various materials and geometry with which upper 302 may be formed. Footbed 304 may be constructed of a molded foam material, for example CROSILITE™. FIGS. 5-9 illustrate footbed 304 in further detail. Footbed 304 includes a top surface 502, a bottom surface 602, and an outer periphery 510. Top surface 502 may include features formed thereon, either via the molding process or added, directly or indirectly, at a different point in manufacture. For example, top surface 502 may include a raised toe bar portion 504, a pattern of raised bumps 506, and/or a mark or logo 508. According to some embodiments of the present invention, footbed 304 and/or top surface 502 may include a foam layer such as, for example, visco-elastic foam. According to embodiments of the present invention, footbed 304 and/or top surface 502 may include a cloth or other material that is thermoformed to the top surface 502 and which may aid in the comfort of the shoe 100.

In addition to bottom surface 602, footbed 304 may include one or more wings 604 formed around, at, or near its perimeter, according to embodiments of the present invention. Wing 604 may be formed during the molding process as a single continuous piece with footbed 304; alternatively, wing 604 may be formed separately from footbed 304 and later attached by glue or other means of attachment, according to embodiments of the present invention. Wing 604 extends from footbed 304 past bottom surface 602, according to embodiments of the present invention. Wing 604 may include an outer surface 702 on one side, and an inner surface 904 on the other side opposite from an interior surface 906 of footbed 304. According to embodiments of the present invention, wing 604 may include an outer surface 702 and an inner surface 904 as illustrated, for example, in FIG. 9b.

As illustrated by FIG. 9a, wing 604 may be formed at an angle A with respect to the interior surface 906 of footbed 304. In fact, as angle A approaches zero, wing 604 may be more difficult to mold along with footbed 304 as a single continuous piece. Therefore, wing 604 may be molded at an angle A with respect to interior surface 906, which also results in formation of a crevice or groove 910 between inner surface 904 and interior surface 906, and at which a type of joint or hinge is formed about which wing 604 may be flexed, bent, and/or rotated in the direction indicated by arrow 902. According to some embodiments of the present invention, angle A is approximately ten to fifteen degrees as molded. According to other embodiments of the present invention, angle A is approximately five to thirty degrees. According to yet other embodiments of the present invention, angle A is approximately one to ninety degrees.

According to embodiments of the present invention, the length of interior surface 906 of footbed 304 (from crevice or groove 910 to bottom surface 602) may vary. According to embodiments of the present invention the length of interior surface 906 of footbed 304 (from crevice or groove 910 to bottom surface 602) may approach or equal zero as is illustrated in FIG. 9b. According to embodiments of the present invention, wing 604 may be molded at an angle B with respect to bottom surface 602. According to some embodiments of the present invention, angle B is approximately one hundred to one hundred five degrees as molded. According to other embodiments of the present invention, angle B is approximately ninety-five to one hundred twenty degrees. According to yet other embodiments of the present invention, angle B is approximately ninety to one hundred eighty degrees.

When footbed 604 is formed of a flexible material, for example resin molded foam, wing 604 may easily be temporarily bent outwardly (e.g. in the direction indicated by arrow 902) to permit easier stitching of upper 302 onto footbed 304, according to embodiments of the present invention. Such temporary bending is illustrated in FIG. 8, for example. The inner surface 310 of upper 302 may be placed over the outer surface 702 of wing 604, and both wing 604 and upper 302 may be bent outwardly (as illustrated, for example, in...
FIG. 8) for attachment. According to some embodiments of the present invention, upper 302 may be stitched to wing 604 using a stitching or sewing device, such as, for example, a Strobel stitching machine. According to some embodiments of the present invention, angle A begins at an angle of ten to thirty degrees as molded, and may be increased (e.g., temporarily) to an angle A of forty-five to ninety degrees by flexing wing 604. According to embodiments of the present invention, upper 302 may also be attached to wing 604 with glue and/or contact adhesive. Adhesive of the kind normally used in shoe construction may preclude or limit water from passing through the connection between wing 604 and upper 302, according to embodiments of the present invention.

[0032] FIG. 10 illustrates an upper 1002 stitched to a footbed 304 according to embodiments of the present invention. Once upper 1002 has been stitched, glued, or otherwise attached to footbed 304, the intermediate piece 306 and/or outsole 308 may be attached. FIG. 12 illustrates an outsole 308, which includes a bottom surface 1204 and inner sidewall surfaces 1202, according to embodiments of the present invention. Outsole 308 may be made of any number and/or combination of materials, such as, for example, CROSILITE™, resin molded foam, EVA, plastic, and/or rubber. Foam, such as moldable foam, may be used for outsole 308 to minimize weight. A tread pattern may be molded into the bottom of outsole 308 and/or tread elements may be added or formed on outsole 308 at a later manufacturing step, according to embodiments of the present invention. For example, outsole 308 may have a rubber or gripping surface tread pattern 320 as illustrated in FIG. 3, according to embodiments of the present invention.

[0033] Intermediate piece 306 includes a top surface 402, a bottom surface 312, and an outer perimeter 314, according to embodiments of the present invention. Intermediate piece 306 may be made of any number of materials, such as, for example, CROSILITE™, resin molded foam, EVA, plastic, rubber, airbags, energy transfer foam, shape-conformable foam, visco-elastic foam, memory foam, and/or puncture-resistant material. Intermediate piece 306 may include one or more holes, one or more bags or pockets of air, gel, or liquid, and/or other customizable or pre-selected features. Intermediate piece 306 may also include a heater, a cooler, and/or various spatial differences in density or hardness, according to embodiments of the present invention. According to embodiments of the present invention, intermediate piece 306 is configured to fill space between bottom surface 602 of footbed 304 and top surface of 1202 of outsole 308, and/or to provide support, shape, or orthopedic characteristics under footbed 304.

[0034] According to some embodiments of the present invention, intermediate piece 306 is a die-cut layer of CROSILITE™, EVA, or other resin molded foam with a thickness configured to substantially match the distance between the bottom surface 602 of footbed 304 and the bottom edge 908 of wing 604. Intermediate piece 306 may be die-cut or molded, according to embodiments of the present invention. According to some embodiments of the present invention, footbed 304 may be attached to outsole 308 without any intermediate piece 306 therebetween, which may leave a cushion of air between footbed 304 and outsole 308 and/or permit greater deflection of footbed 304 during use of shoe 100.

[0035] Intermediate piece 306 may, according to embodiments of the present invention, be a customized insert made to conform to a particular wearer’s foot or a customized orthopedic insert including geometry and/or deformation characteristics as prescribed by a podiatrist or medical specialist. Such a customized intermediate piece 306 may be incorporated between footbed 304 and outsole 308 at an on-site location, permitting pre-made upper 302, footbed 304, and outsole 308 components to be used with customized intermediate pieces 306 to achieve time and cost efficiency, according to embodiments of the present invention. Intermediate piece 306 may be thicker or thinner than depicted in order to achieve desired operating characteristics.

[0036] According to some embodiments of the present invention, intermediate piece 306 may be adhered to footbed 304 after upper 302 is attached to footbed 304. For example, glue or other adhesive, such as, for example, a heat-activated adhesive may be applied to the inner surface 904 of wing 604 and/or the outer perimeter 314 of intermediate piece 306, and intermediate piece 306 may then be pressed into footbed 304 or held in place as the adhesive is activated. In some cases, simply pushing wing 604 inwards will cause adhering contact between wing 604 and outer perimeter 314 of intermediate piece 306. According to some embodiments of the present invention, adhesive may be applied not only to the part of inner surface 904 which extends beyond bottom surface 602, but also to remaining portions of inner surface 904 and/or interior surface 906, which further serves to adhere inner surface 904 to interior surface 906. According to some embodiments of the present invention, such application of adhesive between inner surface 904 and interior surface 906 may occur unintentionally as adhesive is pulled by gravity or blown downwardly to the bottom of groove 910. According to embodiments of the present invention, adhesive may also be applied to top surface 402 of intermediate piece and/or bottom surface 602 of footbed 304 to adhere footbed 304 to intermediate piece 306.

[0037] According to other embodiments of the present invention, inner surface 904 and interior surface 906 are intentionally adhered or otherwise bonded together, either simultaneously with the addition of intermediate piece 306 or at a different manufacturing step, to further enhance the vertical structural reinforcement of the shoe 100. However, application of adhesive between bottom surface 602 of footbed 304 and top surface 402 of intermediate piece 306 is minimized or avoided, according to embodiments of the present invention, to reduce weight and minimize any unwanted stiffness beneath footbed 304 caused by a hardening of adhesive.

[0038] Although intermediate piece 306 may be adhered to footbed 304 according to embodiments of the present invention, in other embodiments of the present invention, intermediate piece 306 may simply be inserted between footbed 304 and outsole 308 prior to the adhesion of footbed 304 to outsole 308, such that intermediate piece 306 is retained in place due to encapsulation between footbed 304 and outsole 308 and/or due to the particular shape features of bottom surface 602 or top surface 1204, rather than due to adhesive. Such a configuration permits intermediate piece 306 to “float” between footbed 304 and outsole 308 in situations where such “floating” may be desirable.

[0039] Whether or not an intermediate piece 306 is utilized between footbed 304 and outsole 308, the footbed 304 and upper 302 combination may then be adhered or otherwise attached to outsole 308. FIG. 11 depicts an upper 1102 and footbed 304 combination to which a layer of adhesive 1104
has been added in preparation for adhesion to outsole 308. FIG. 12 depicts an outsole 308 having a top inner surface 1204 and sidewall inner surfaces 1202 which are vertical, substantially vertical, or non-horizontal, according to embodiments of the present invention. The layer of adhesive may be added to all or a portion of the outer lower surface of the upper 1102 as depicted in FIG. 11 and/or to the sidewall inner surfaces 1202, according to embodiments of the present invention. The adhesive used may be heat-activated, in which case the entire shoe 100 and/or portions thereof may be run through a tunnel oven to activate the adhesive. According to embodiments of the present invention, the adhesion and/or connection between upper 1102 and outsole 308 may be water proof and/or water resistant to limit or prevent water from entering into shoe 100. A last may be inserted into upper 302 to maintain a particular shape for upper 302 and/or footbed 304 as footbed 304 is attached to outsole 308, according to embodiments of the present invention. However, application of adhesive between bottom surface 602 of footbed 304 and top surface 1204 of outsole 308 or, where an intermediate piece 306 is used, application of adhesive between bottom surface 312 of intermediate piece 306 and top surface 1204 of outsole, is minimized or avoided, according to embodiments of the present invention, to reduce weight and minimize any unwanted stiffness beneath footbed 304 caused by a hardening of adhesive.

[0040] A shoe according to embodiments of the present invention thus includes a sole with little or no glue in layers between the user’s foot and the bottom of the sole which contacts the underlying surface. Because embodiments of the present invention achieve a sturdy shoe construction with easy stitching of the upper 302 to the footbed 304 at the wing 604 and with minimal glue joints located between substantially vertical surfaces at the perimeters of the shoe 100, such embodiments provide an extremely lightweight and comfortable shoe. Such embodiments are also capable of including an upper with a more traditional or formal appearance while retaining the comfort and weight benefits of having an uninterrupted or minimally interrupted path of resin molded foam between a wearer’s foot and the ground, according to embodiments of the present invention.

[0041] Such embodiments also provide an extremely lightweight and comfortable shoe with an upper that permits more complex lacing and/or tightening operations to secure the shoe 100 to a user’s foot. For example, embodiments of the present invention may be running shoes. Often, runners choose between a traditional running shoe which can be more easily laced and/or tightened around the foot but which has a harder, heavier sole caused by the glue used to laminate the layers of the sole, and a one-piece continuous (upper and sole) resin molded foam shoe which is more comfortable and lighter, but which allows a higher degree of slippage between the foot and shoe during running, in some cases. Thus, a shoe and methods of constructing the shoe according to embodiments of the present invention provide a lightweight and comfortable sole with an uninterrupted or minimally interrupted path of resin molded foam (or other selected materials or properties) between the user’s foot and the ground, and with a durable attachment to a selected upper 302.

[0042] FIG. 13 illustrates a flow chart 1300 showing a shoe construction method according to embodiments of the present invention. A footbed 304 is formed with a wing 604 around the footbed 304 periphery (block 1302). The wing 604 is bent outwardly (block 1304) and an upper 302 is stitched to the wing 604 (block 1306). An intermediate piece 306 may be included, either “floating” between the footbed 304 and outsole 308, or adhered or otherwise attached to footbed 304 (block 1308). The intermediate piece 306 may be adhered to the footbed 304 (block 1310). For example, the intermediate piece 306 may be adhered to the wing 604 of footbed 304, such as, for example, by adhering outer perimeter 314 of intermediate piece 306 to inner surface 904 of wing 604, according to embodiments of the present invention. As an alternative or in addition to adhering intermediate piece 306 to wing 604, inner surface 904 may be adhered to interior surface 906, according to embodiments of the present invention. The top 402 and/or bottom 312 surfaces of the intermediate piece 306 may also be adhered to the footbed 304 and/or outsole 308, according to embodiments of the present invention. The footbed 304 and upper 302 may be adhered to the outsole 308 (block 1312), according to embodiments of the present invention.

[0043] Although embodiments of the present invention discuss a footbed 304 having a wing 604 which surrounds an entire periphery of footbed 304, wing 604 may alternatively surround less than the entire periphery of footbed 304, according to embodiments of the present invention. For example, in a sandal-type shoe with an upper which requires attachment to the sole only along certain lengths on each side of the sole, wing 604 may be formed along footbed 304 only along the certain lengths, with the remaining portions of the footbed 304 (and the remaining portions of the outsole 308 not corresponding to the certain lengths) formed as they would be formed in a continuous one-piece resin molded foam shoe, according to embodiments of the present invention. Alternatively, in a sandal-type shoe, wing 604 may surround the entire periphery of footbed 304, but upper 302 may span less than all of the footbed 304 periphery and may be stitched to wing 604 only where upper 302 overlaps the wing 604, according to embodiments of the present invention. And although different components are described as molded or injection-molded, some components may also be compression molded to achieve a similar result, according to embodiments of the present invention. For example, footbed 304 may be compression molded to form a wing 604 on the outer periphery, according to embodiments of the present invention.

[0044] Various modifications and additions can be made to the exemplary embodiments discussed without departing from the scope of the present invention. For example, while the embodiments described above refer to particular features, the scope of this invention also includes embodiments having different combinations of features and embodiments that do not include all of the described features. Accordingly, the scope of the present invention is intended to embrace all such alternatives, modifications, and variations as fall within the scope of the claims, together with all equivalents thereof.

What is claimed is:

1. A shoe comprising:
   an upper;
   a footbed comprising a wing, the wing extending around at least a portion of a periphery of the footbed, the upper attached to the wing;
   an outsole configured to receive the upper and the footbed.

2. The shoe of claim 1, further comprising an intermediate piece between the footbed and the outsole.
3. The shoe of claim 2, wherein the intermediate piece substantially fills a space between the footbed and the outsole.
4. The shoe of claim 2, wherein the footbed further comprises a top surface and a bottom surface, wherein the wing attaches to the footbed near the top surface, and wherein the wing is longer than a distance between the top surface and the bottom surface.
5. The shoe of claim 4, wherein the distance is a first distance, and wherein the intermediate piece has a thickness substantially the same as a second distance between the bottom surface and a bottom edge of the wing.
6. The shoe of claim 1, wherein the upper is stitched to the wing.
7. The shoe of claim 6, wherein the upper is Strobel stitched to the wing.
8. The shoe of claim 1, wherein an adhesive engages the outsole to the upper.
9. The shoe of claim 8, wherein the adhesive creates a seal between an interior space of the shoe and an exterior of the shoe, wherein the seal is a substantially waterproof seal.
10. The shoe of claim 1, wherein an adhesive engages the outsole to the footbed.
11. The shoe of claim 1, wherein the footbed comprises moldable foam material.
12. The shoe of claim 1, wherein the outsole comprises moldable foam material.
13. The shoe of claim 2, wherein the footbed, the outsole, and the intermediate piece are formed of the same moldable foam material.
14. The shoe of claim 1, wherein the footbed and the wing are formed of a single continuous piece of molded foam material.
15. The shoe of claim 1, wherein the footbed comprises an interior surface, wherein the wing comprises an inner surface, and wherein an acute angle is formed between the interior surface and the inner surface.
16. The shoe of claim 15, wherein the acute angle is ten to fifteen degrees.
17. The shoe of claim 15, wherein the acute angle is five to thirty degrees.
18. A shoe comprising:
   a. a footbed having a top surface and a bottom surface, the footbed formed of a moldable foam material;
   b. an upper attached to the footbed around a periphery of the footbed;
   c. an outsole having a bottom part, the outsole formed at least partially of the moldable foam material; and
   d. an intermediate piece for insertion between the footbed and the outsole, wherein the intermediate piece comprises a top portion and a bottom portion, and wherein the top surface, the bottom surface, the bottom part, the top portion, and the bottom portion are substantially free of adhesive.
19. The shoe of claim 18, wherein the footbed comprises a wing, the wing extending around at least a portion of the periphery of the footbed, and wherein the upper is attached to the wing.
20. A method for constructing shoes, the method comprising:
   forming a footbed, the footbed comprising a wing portion extending around a periphery of the footbed;
   stitching an upper to the wing portion; including an intermediate portion below the footbed; and
   adhering the footbed and the upper to an outsole.
21. The method of claim 20, wherein stitching the upper to the wing portion comprises bending the wing portion away from the footbed during stitching.
22. The method of claim 20, further comprising adhering an inner surface of the wing to an interior surface of the footbed.

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