



(12)

EUROPEAN PATENT APPLICATION

- (43)

Date of publication:
23.04.2025 Bulletin 2025/17
- (21)

Application number: 24177904.0
- (22)

Date of filing: 24.05.2024
- (51)

International Patent Classification (IPC):
A43B 11/00 (2006.01) A43B 23/26 (2006.01)
A43C 11/00 (2006.01) A43B 23/04 (2006.01)
- (52)

Cooperative Patent Classification (CPC):
A43B 23/26; A43B 11/00; A43B 23/047;
A43C 11/002; A43C 11/006; A43B 3/04;
A43B 23/0235

- (84)

Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL
NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA
Designated Validation States:
GE KH MA MD TN
- (72)

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SHOE UPPER AND SHOE HAVING THE SAME

(57)

Embodiments of the present application provides a shoe upper and a shoe having the same, characterized in that the shoe upper comprises a shoe upper having a vamp toe portion and a vamp side portion that are connected to each other, wherein the inner surface of the vamp side portion is provided with a position limiting component; a tongue having a first portion and a second portion that are oppositely disposed, wherein the first portion of the tongue is affixed to the vamp toe portion; an elastic band configured to connect the second portion of the tongue with the vamp side portion, wherein at least part of the elastic band is located between the position limiting component and the inner surface of the vamp side

portion, and the second portion of the tongue is in limiting mating with the position limiting component under the action of the elastic band. According to the technical scheme of the embodiments of the present application, the tongue can be prevented from dropping after the user takes off the shoe, so that a sufficient distance can be kept between the tongue and the insole. This avoids obstructing the insertion of the foot due to interference between the tongue and the foot when the user puts on the shoe. The insertion does not require any manual operation, thus effectively improving the efficiency of putting on the shoe by the user and improving the user's experience.

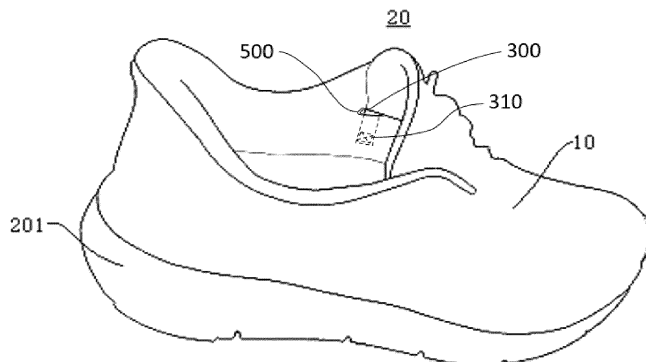


FIG. 1

Description

TECHNICAL FIELD

[0001] The present application relates to the technical field of footwear, in particular to a shoe upper and a shoe having the same.

BACKGROUND

[0002] In the related art, after a user takes off his/her shoe, the tongue of the shoe would easily drop off, resulting in a close distance between the tongue and the insole. When the user puts on the shoe again, the tongue interferes with the foot and hinders the foot from inserting into the shoe. In this case, the user needs to manually pull the tongue upwards so as to put on the shoe smoothly, which affects the user's experience.

SUMMARY

[0003] Embodiments of the present application provide a shoe upper and a shoe having the same to solve or alleviate one or more technical problems in the prior art.

[0004] As an aspect of the embodiments of the present application, the embodiments of the present application provides a shoe upper, which comprises a shoe upper having a vamp toe portion and a vamp side portion that are connected to each other, wherein the inner surface of the vamp side portion is provided with a position limiting component; a tongue having a first portion and a second portion that are oppositely disposed, wherein the first portion of the tongue is affixed to the vamp toe portion; an elastic band configured to connect the second portion of the tongue with the vamp side portion, wherein at least part of the elastic band is located between the position limiting component and the inner surface of the vamp side portion, and the second portion of the tongue is in limiting mating with the position limiting component under the action of the elastic band, i.e. the configuration and interactions of the second tongue portion, elastic bands, and the position limiting component limit the mating of the tongue with the inner portions of the footwear that may prevent the foot from easily entering the shoe for a proper fit.

[0005] In one implementation, one end of the elastic band is located between the position limiting component and the inner surface of the vamp side portion, and the other end of the elastic band is connected to the second portion of the tongue, and the side edge of the second portion of the tongue abuts against the position limiting component under the action of the elastic band.

[0006] In one implementation, one end of the elastic band is connected between the position limiting component and the inner surface of the vamp side portion.

[0007] In one implementation, the position limiting component comprises an interior lining layer and an

opening formed in the interior lining layer, one end of the elastic band passes through the opening and at least extends to somewhere between the interior lining layer and the inner surface of the vamp side portion, and the other end of the elastic band is connected to the second portion of the tongue, and the side edge of the second portion of the tongue abuts against the opening under the action of the elastic band.

[0008] In one implementation, the other end of the elastic band is connected to the side edge of the second portion of the tongue.

[0009] In one implementation, there are two elastic bands and two position limiting components, the two position limiting components are located on both side edges of the vamp side portion, respectively, and the tongue and the two position limiting components are engaged in limiting mating under the action of the two elastic bands, respectively.

[0010] In one implementation, the position limiting component comprises a first position limiting component and a second position limiting component, the vamp side portion comprises a first vamp side portion and a second vamp side portion that are oppositely disposed, one end of the elastic band is connected between the first position limiting component and the inner surface of the first vamp side portion, and the other end of the elastic band is connected between the second position limiting component and the inner surface of the second vamp side portion.

[0011] In one implementation, the vamp side portion comprises a first vamp side portion and a second vamp side portion that are oppositely disposed, and the position limiting component comprises a first interior lining layer, a first opening formed in the first interior lining layer, a second interior lining layer, and a second opening formed in the second interior lining layer, the first interior lining layer is located on the inner surface of the first vamp side portion, and the second interior lining layer is located on the inner surface of the second vamp side portion; one end of the elastic band passes through the first opening and at least extends to somewhere between the first interior lining layer and the inner surface of the first vamp side portion, and the other end of the elastic band passes through the second opening and at least extends to somewhere between the second interior lining layer and the inner surface of the second vamp side portion.

[0012] In one implementation, the intermediate segment of the elastic band is connected to the tongue; alternatively, the intermediate segment of the elastic band penetrates through the tongue.

[0013] In one implementation, the vamp further has a vamp heel portion connected to the vamp side portion, and the shoe upper further comprises a heel support member disposed at the vamp heel portion, wherein the heel support member is configured in a rigid structure; alternatively, at least part of the heel support member is a flexible structure.

[0014] In one implementation, the heel support mem-

ber comprises a first support portion and a second support portion located at the bottom end of the first support portion, at least part of the second support portion protrudes outwards and is configured for surrounding the back of the heel of the user, and the first support portion inclines outwards from bottom to top.

[0015] In one implementation, the first support portion has a first configuration and a second configuration, and when the foot of the user inserts into the vamp, the first support portion is deformed from the first configuration to the second configuration under the load of the foot, and the height of at least part of the first supporting part is reduced; after removing the load of the foot, the first support portion is restored from the second configuration to the first configuration.

[0016] In one implementation, the first support portion has a first configuration and a second configuration, and when the foot of the user inserts into the vamp, the first support portion is deformed from the first configuration to the second configuration under the load of the foot, and the inclination angle of the first support portion with respect to the vertical line becomes larger; after removing the load of the foot, the first support portion is restored from the second configuration to the first configuration.

[0017] In one implementation, the second support portion includes a middle region and two side regions, and when in the second configuration, the upper part of the middle region is closer to the vamp toe portion than in the first configuration, and the uppermost area of the first support portion is farther away from the vamp toe portion than in the first configuration.

[0018] In one implementation, the second support portion includes a middle region and two side regions, and when in the second configuration, the two side regions move outwards to increase the distance between the two sides of the vamp side portion.

[0019] In one implementation, the vamp further comprises a flexible component disposed on the heel support member; when a user's foot inserts into the vamp, the flexible component is compressed, and the flexible component exerts pressure on the user's ankle.

[0020] In one implementation, the flexible component extends along at least a part of the inner surface of the vamp from both side edges of the upper part of the heel support member, to form a side section of the flexible component.

[0021] As another aspect of the embodiments of the present application, the embodiments of the present application provides a shoe, which comprises a sole and the shoe upper of any one of the above described implementations.

[0022] In one implementation, the elastic band of the shoe upper has a sole-connected portion.

[0023] According to the technical scheme of the embodiments of the present application, the tongue can be prevented from dropping after the user takes off the shoe, so that a sufficient distance can be kept between the tongue and the insole. This avoids obstructing the inser-

tion of the foot due to interference between the tongue and the foot when the user puts on the shoe. The insertion does not require any manual operation, thus effectively improving the efficiency of putting on the shoe by the user and improving the user's experience.

[0024] The above summary is for illustrative purpose only and is not intended to limit the present application in any way. In addition to the above-described illustrative aspects, implementations and features, further aspects, implementations and features of the present application will be readily understood by referring to the drawings and the following detailed description.

BRIEF DESCRIPTION OF THE DRAWINGS

[0025] In the drawings, unless otherwise specified, the same reference numerals indicate the same or similar components or elements throughout several drawings. These drawings are not necessarily drawn to scale. It should be understood that these drawings depict only some implementations disclosed in accordance with the present application and should not be deemed as limiting the scope of this application.

FIG. 1 shows a schematic view of a shoe upper in accordance with an embodiment of the present application;

FIG. 2A shows a schematic view showing part of a shoe upper in accordance with an embodiment of the present application;

FIG. 2B shows a schematic view showing part of a shoe upper in accordance with an embodiment of the present application;

FIG. 3 shows a perspective view of a heel support member in accordance with an embodiment of the present application;

FIG. 4 shows a side view of a heel support member in accordance with an embodiment of the present application;

FIG. 5 shows a schematic view of a heel support member in a first configuration and in a second configuration in accordance with an embodiment of the present application;

FIG. 6 shows a schematic view of the heel support member in a first configuration and in a second configuration from another angle in accordance with an embodiment of the present application;

FIG. 7 shows a schematic view of a vamp heel portion in accordance with an embodiment of the present application;

FIG. 8 shows a sectional view of a vamp heel portion in accordance with an embodiment of the present application; and

FIG. 9 shows a schematic view of a shoe in accordance with an embodiment of the present application.

List of the reference numerals:

[0026]

10: shoe upper;
100: vamp; 200: tongue; 300: elastic band; 310: stitching; 400: interior lining layer; 500: opening; 600: heel support member; 610: first support portion; 620: second support portion; 700: flexible component;
20: shoe; 201: sole.

DETAILED DESCRIPTION

[0027] In the following text, only certain exemplary embodiments are briefly described. As can be recognized by those skilled in the art, the described embodiments can be modified in various different ways without departing from the spirit or scope of the present application. Accordingly, the drawings and the description are to be regarded as illustrative and non-limiting in nature.

[0028] Hereinafter, a shoe upper according to embodiments of the first aspect of the present application will be described in combination with FIGS. 1 to 8.

[0029] FIG. 1 shows a schematic view of a shoe upper in accordance with an embodiment of the present application; and FIG. 2 shows a schematic view showing part of a shoe upper in accordance with an embodiment of the present application. As shown in FIGS. 1 and 2, the shoe upper 10 includes a vamp 100, a tongue 200 and an elastic band 300.

[0030] Specifically, the vamp 100 has a vamp toe portion and a vamp side portion that are connected to each other, and the inner surface of the vamp side portion is provided with a position limiting component. The tongue 200 has a first portion and a second portion that are oppositely disposed, and the first portion of the tongue 200 is affixed to the vamp toe portion. The elastic band 300 is configured to connect the second portion of the tongue 200 with the vamp side portion, at least part of the elastic band 300 is located between the position limiting component and the inner surface of the vamp side portion, and the second portion of the tongue 200 is in limiting mating with the position limiting component under the action of the elastic band 300. The elastic band 300 can be configured to connect to the inner surface of the vamp side portion and can be affixed through stitching 310 or any other means known in the art. The elastic band may be affixed to other portions of the shoe such as the insole, sole, heel cup, or loop around the insole, sole or heel cup where the elastic bands ends are both connected to the second portion of the tongue

[0031] It should be noted that the direction "inner" can be understood as the side near the center of the shoe upper 10, and the opposite direction is defined as "outer", that is, the side away from the center of the shoe upper 10.

[0032] Illustratively, the vamp 100 and the tongue 200

can jointly define a shoe cavity with an open top, and a user's foot can insert into the shoe cavity through the open end. The vamp 100 may also include a vamp heel portion. After the foot of the user inserts into the shoe cavity, the user's toe part contacts the vamp toe portion, the user's heel part contacts the vamp heel portion, and the vamp side portion is connected between the vamp toe portion and the vamp heel portion. The first portion of the tongue 200 can be the first half of the tongue 200, that is, the part of the tongue 200 located near the vamp toe portion. The second portion of the tongue 200 can be the rear half of the tongue 200, that is, the part of the tongue 200 that is disposed away from the vamp toe portion.

[0033] Illustratively, the elastic band 300 is stretchable between a first state and a second state. Before the user's foot inserts into the shoe cavity, the elastic band 300 is in the first state (as shown in FIG. 1 and FIG. 2A), at which time the length of the elastic band 300 can be L_1 . In the first state, the elastic band 300 can have tension, so that the second portion of the tongue 200 is in limiting mating with the position limiting component. When the user's foot inserts into the shoe cavity, the elastic band 300 is stretched from the first state to the second state (as shown in FIG. 2B), at which time the length of the elastic band 300 can be L_2 , wherein $L_2 > L_1$. After the user's foot fully extends into the shoe cavity, the elastic band 300 can be restored from the second state to the first state or near the first state, at which time the length of the elastic band 300 can be L_3 , wherein $L_1 < L_3 < L_2$. After the user's foot is removed from the shoe cavity, the elastic band 300 can be restored to the first state. Because the second portion of the tongue 200 is in limit mating with the position limiting component, the second portion of the tongue 200 can be prevented from dropping, so that there is enough distance between the tongue 200 and the insole or footbed. In the process of putting on the shoe again, the user can directly extend the foot into the shoe cavity. This avoids obstructing the insertion of the foot due to interference between the tongue 200 and the foot.

[0034] By providing the position limiting component and the elastic band 300 in the shoe upper 10 in accordance with the embodiment of the present application, and under the action of the elastic band 300, the second portion of the tongue 200 being in limiting mating with the position limiting component, the tongue 200 can be prevented from dropping after the user takes off the shoe 20, so that a sufficient distance can be kept between the tongue 200 and the insole or footbed. This avoids obstructing the insertion of the foot due to interference between the tongue 200 and the foot when the user puts on the shoe. The insertion does not require any manual operation, thus effectively improving the efficiency of the user putting on the shoe and improving the user's experience.

[0035] In one implementation, one end of the elastic band 300 is located between the position limiting component and the inner surface of the vamp side portion, and the other end of the elastic band 300 is connected to

the second portion of the tongue 200. Under the action of the elastic band 300, the side edge of the second portion of the tongue 200 abuts against the position limiting component.

[0036] Illustratively, one end of the elastic band 300 can be sandwiched between the position limiting component and the inner surface of the vamp side portion, for example, the end can be connected between the position limiting component and the inner surface of the vamp side portion. The other end of the elastic band 300 can be connected to the side edge of the second portion of the tongue 200. When the elastic band 300 is in the first state, the elastic band 300 may have tension, so that the side edge of the second portion of the tongue 200 can abut against the position limiting component, thereby preventing the tongue 200 from dropping. When the elastic band 300 is stretched from the first state to the second state, the side edge of the second portion of the tongue 200 is separated from the position limiting component, at which time the size of the open end of the shoe cavity can be increased, and the user's foot can insert into the shoe cavity more easily.

[0037] Illustratively, the position limiting component can include a first position limiting component and a second position limiting component, and the vamp side portion can include a first vamp side portion and a second vamp side portion that are oppositely disposed. There can be two elastic bands 300, namely a first elastic band 300 and a second elastic band 300. One end of the first elastic band 300 can be located between the first position limiting component and the inner surface of the first vamp side portion, and the other end of the first elastic band 300 is connected to one of the side edges of the second portion of the tongue 200. One end of the second elastic band 300 can be located between the second position limiting component and the inner surface of the second vamp side portion, and the other end of the second elastic band 300 is connected to the other side edge of the second portion of the tongue 200. In this way, the first elastic band 300 and the second elastic band 300 exert more uniform forces on the tongue 200, and the heights of both side edges of the tongue 200 are approximately the same, thus making the position of the tongue 200 more reasonable.

[0038] In this embodiment, by making the side edges of the second portion of the tongue 200 abut against the position limiting component, while ensuring a sufficient distance between the tongue 200 and the insole or footbed, it is unnecessary to occupy the area between the two side edges of the tongue 200 for position limiting, so that the structure of the shoe upper 10 is simpler and more reliable.

[0039] In one implementation, with reference to FIG. 2A and 2B, the position limiting component includes an interior lining layer 400 and an opening 500 formed in the interior lining layer 400. One end of the elastic band 300 passes through the opening 500 and at least extends to somewhere between the interior lining layer 400 and the

inner surface of the vamp side portion. The other end of the elastic band 300 is connected to the second portion of the tongue 200. Under the action of the elastic band 300, the side edge of the second portion of the tongue 200 abuts against the opening 500. The position limiting component may also include the inner surface of the vamp side above the opening 500 abutting with the second tongue portions of the inner surface of the vamp side portion, or the elastic band 300 being held upright in part by the opening 500 which in turn holds up the second portion of the tongue 200 in an elevated position such that the second tongue portion does not interfere with the insertion or remove of the foot from the shoe.

[0040] The other end of the elastic band 300 can be connected to the side edge of the second portion of the tongue 200. Illustratively, the position limiting component can include a first interior lining layer 400, a first opening 500 formed in the first interior lining layer 400, a second interior lining layer 400, and a second opening 500 formed in the second interior lining layer 400. The first interior lining layer 400 is located on the inner surface of the first vamp side portion, and the second interior lining layer 400 is located on the inner surface of the second vamp side portion. There can be two elastic bands 300, namely a first elastic band 300 and a second elastic band 300. One end of the first elastic band 300 passes through the first opening 500 and at least extends to somewhere between the first interior lining layer 400 and the inner surface of the first vamp side portion. The other end of the first elastic band 300 can be connected to one of the side edges of the second portion of the tongue 200. When the first elastic band 300 is in the first state, under the action of the first elastic band 300, one of the side edges of the second portion of the tongue 200 abuts against the first opening 500, at which time the first elastic band 300 can be hidden between the first interior lining layer 400 and the inner surface of the first vamp side portion. One end of the second elastic band 300 passes through the second opening 500 and at least extends to somewhere between the second interior lining layer 400 and the inner surface of the second vamp side portion. The other end of the second elastic band 300 can be connected to the other side of the second portion of the tongue 200. When the second elastic band 300 is in the first state, under the action of the second elastic band 300, the other side of the second portion of the tongue 200 abuts against the second opening 500 or abuts portions of the inner surface of the vamp side portion or the elastic band 300 is held upright and in place in part by the opening 500 and thus holds up the second portion of the tongue 200 in elevate position, at which time the second elastic band 300 can be entirely hidden or a majority of the elastic band is concealed between the second interior lining layer 400 and the inner surface of the second vamp side portion.

[0041] In the process of the user's foot penetrating into the shoe cavity, the first elastic band 300 and the second elastic band 300 are stretched from the first state to the second state, at which time a part of the first elastic band

300 is located between the first opening 500 and one of the side edges of the second portion of the tongue 200, and a part of the second elastic band 300 is located between the second opening 500 and the other side of the second portion of the tongue 200. After the user's foot inserts into the shoe cavity, the first elastic band 300 and the second elastic band 300 can be restored from the second state to the first state or close to the first state, and the length of the part of the first elastic band 300 between the first opening 500 and the tongue 200 is smaller than that in the second state, or the first elastic band 300 is hidden at least in part or entirely between the first interior lining layer 400 and the inner surface of the first vamp side portion; the length of the part of the second elastic band 300 between the second opening 500 and the tongue 200 is smaller than that in the second state, or the second elastic band 300 is hidden at least in part or entirely between the second interior lining layer 400 and the inner surface of the second vamp side portion. After the user's foot gets out of the shoe cavity, the elastic band 300 can be restored to the first state. At this time, under the action of the first elastic band 300, one side of the second portion of the tongue 200 abuts against the first opening 500, and under the action of the second elastic band 300, the other side edge of the second portion of the tongue 200 abuts against the second opening 500. In the alternate, the inner surface of the vamp side above the opening 500 can abut with the second tongue portions of the inner surface of the vamp side portion, or the elastic band 300 is held upright in part by the opening 500 which in turn holds up the second portion of the tongue 200 in an elevated position such that the second tongue portion does not interfere with the insertion or remove of the foot from the shoe.

[0042] In this embodiment, under the action of the elastic band 300, the side edges of the second portion of the tongue 200 can abut against at the opening 500, which can limit the movement of the tongue 200 and prevent the tongue 200 from dropping, and at the same time, the elastic band 300 can be hidden between the vamp side portion and the interior lining layer 400, thus avoiding the direct contact between the user's feet and the elastic band 300 and improving the comfort.

[0043] In one implementation, there are two elastic bands 300 and two position limiting components, and the two position limiting components are located on both sides of the vamp side portion, respectively. Under the action of the two elastic bands 300, the tongue 200 and the two position limiting components are engaged in limiting mating, respectively.

[0044] It should be noted that when the position limiting component includes the interior lining layers 400 and openings 500 formed in the interior lining layers 400, there are two openings 500 that are oppositely disposed, and there are two interior lining layers 400 which are disposed on both sides of the vamp side portion, respectively. Among other things, two interior lining layers 400 can be disposed at intervals; alternatively, the two interior

lining layers 400 can be connected into an integral structure.

[0045] Illustratively, the two position limiting components can be a first position limiting component and a second position limiting component, respectively. The two sides of the vamp side portion are a first vamp side portion and a second vamp side portion, respectively. The first position limiting component is disposed at the first vamp side portion, and the second position limiting component is disposed at the second vamp side portion. The two elastic bands 300 can be a first elastic band 300 and a second elastic band 300. Under the action of the first elastic band 300, one of the side edges of the second portion of the tongue 200 is in limiting mating with the first position limiting component. Under the action of the second elastic band 300, the other side edge of the second portion of the tongue 200 is in limiting mating with the second position limiting component.

[0046] Further, for example, the first position limiting component can include a first interior lining layer 400 and a first opening 500 formed in the first interior lining layer 400, and the second position limiting component can include a second interior lining layer 400 and a second opening 500 formed in the second interior lining layer 400. When the first elastic band 300 and the second elastic band 300 are in the first state, under the action of the first elastic band 300, one of the side edges of the second portion of the tongue 200 abuts against the first opening 500. Under the action of the second elastic band 300, the other side edge of the second portion of the tongue 200 abuts against the second opening 500.

[0047] In this embodiment, by providing two elastic bands 300 as well as two position limiting components, and the force exerted by the two elastic bands 300 on the tongue 200 is more uniform, so that the tongue 200 can be better supported, and the tongue 200 can be in limiting mating with both position limiting components, so as to further prevent the tongue 200 from dropping close to the insole, and further improve the user's experience.

[0048] In one implementation, the position limiting component includes a first position limiting component and a second position limiting component, and the vamp side portion includes a first vamp side portion and a second vamp side portion that are oppositely disposed. One end of the elastic band 300 is connected between the first position limiting component and the inner surface of the first vamp side portion, and the other end of the elastic band 300 is connected between the second position limiting component and the inner surface of the second vamp side portion.

[0049] Illustratively, there can be one elastic band 300. One end of the elastic band 300 can be sandwiched between the first position limiting component and the inner surface of the first vamp side portion, and the other end of the elastic band 300 can be sandwiched between the second position limiting component and the inner surface of the second vamp side portion. The intermediate segment of the elastic band 300 (that is, the part

between the two ends of the elastic band 300) can be connected to the tongue 200; alternatively, the intermediate segment of the elastic band 300 may penetrate the tongue 200 to support the tongue 200. When the elastic band 300 is in the first state, one of the side edges of the second portion of the tongue 200 can abut against the first position limiting component, and the other side edge of the second portion of the tongue 200 can abut against the second position limiting component. When the elastic band 300 is stretched from the first state to the second state, one of the side edges of the second portion of the tongue 200 is separated from the first position limiting component, and the other side edge of the second portion of the tongue 200 is separated from the second position limiting component.

[0050] In this embodiment, two ends of the elastic band 300 can be connected between the first position limiting component and the inner surface of the first vamp side portion and between the second position limiting component and the inner surface of the second vamp side portion, respectively, so that under the action of the elastic band 300, the tongue 200 can limit the tongue from lowering with the first position limiting component and the second position limiting component, respectively, and the position limiting of the tongue 200 is more stable and reliable.

[0051] In one implementation, the vamp side portion includes a first vamp side portion and a second vamp side portion that are oppositely disposed, and the position limiting component includes a first interior lining layer 400, a first opening 500 formed in the first interior lining layer 400, a second interior lining layer 400 and a second opening 500 formed in the second interior lining layer 400, wherein the first interior lining layer 400 is located on the inner surface of the first vamp side portion and the second interior lining layer 400 is located on the inner surface of the second vamp side portion; one end of the elastic band 300 passes through the first opening 500 and at least extends to somewhere between the first interior lining layer 400 and the inner surface of the first vamp side portion, and the other end of the elastic band 300 passes through the second opening 500 and at least extends to somewhere between the second interior lining layer 400 and the inner surface of the second vamp side portion.

[0052] Illustratively, the intermediate segment of the elastic band 300 may have a first segment hidden between the first interior lining layer 400 and the inner surface of the first vamp side portion, and the first segment can be located between the first opening 500 and the first end. The intermediate segment of the elastic band 300 may also have a second segment hidden between the second interior lining layer 400 and the inner surface of the second vamp side portion, and the second segment can be located between the second opening 500 and the second end. The elastic band 300 may also have a third segment located between the first section and the second section, and the third segment can be

connected to the tongue 200; alternatively, the third section may penetrate the tongue 200 to support the tongue 200. When the third segment is connected to the tongue 200, the third segment can be affixed to one of the side edges of the second portion of the tongue 200, or to the other side edge of the second portion of the tongue 200, or to any area between the two side edges of the second portion of the tongue 200. When the third segment penetrates the tongue 200, the third segment may penetrate the whole area or part of the area between the two side edges. When a user's foot inserts into the shoe cavity, the elastic band 300 is stretched from the first state to the second state, at which time at least part of the elastic band 300 is located between the first opening 500 and one of the side edges of the second portion of the tongue 200, and at least part of the elastic band 300 is located between the second opening 500 and the other side edge of the second portion of the tongue 200.

[0053] In this embodiment, the two ends of the elastic band 300 pass through the first opening 500 and the second opening 500, respectively, and under the action of the elastic band 300, the two side edges of the second portion of the tongue 200 can abut against the first opening 500 and the second opening 500, respectively, which can also improve the reliability of limiting the position of the tongue 200.

[0054] FIG. 3 shows a perspective view of a heel support member 600 in accordance with an embodiment of the present application. FIG. 4 shows a top view of a heel support member 600 in accordance with an embodiment of the present application. In one implementation, with reference to FIGS. 1, 3 and 4, the vamp 100 further has a vamp heel portion connected to the vamp side portion, and the shoe upper 10 further includes a heel support member 600 disposed at the vamp heel portion. The heel support member 600 is configured in a rigid structure; alternatively, at least part of the heel support member 600 is a flexible structure. Illustratively, the heel support member 600 can be made of a polymer material such as TPU or DuPont Hytrel. The heel support member 600 can be covered by a textile material or a suitable material known in the art, thereby forming an outer layer structure and an inner layer structure of the shoe upper 10. The textile material can extend above the heel support member 600.

[0055] Therefore, by providing the above-mentioned heel support member 600, the heel support member 600 can bear the pressure of the foot, thereby avoiding the depression in the part of the vamp heel portion corresponding to the heel. In addition, the heel support member 600 can be made of a rigid material, which will not compress basically under the load of the user's foot, so as to play an effective supporting role; alternatively, the heel support member 600 may have some flexibility, so that the upper part of the heel support member 600 can have some slight flexibility, which is enough to bend downward and away from the top open end of the shoe upper 10 and/or widen the top open end of the shoe upper, so that

the foot can more easily insert into or get out of the shoe.

[0056] In one implementation, the heel support member 600 includes a first support portion 610 and a second support portion 620 located at the bottom end of the first support portion 610, at least part of the second support portion 620 protrudes outward and is used to surround the back of the heel of the user, and the first support portion 610 inclines outwards from bottom to top.

[0057] In this embodiment, by providing the first support portion 610 and the second support portion 620, the first support portion 610 can play an effective guiding role, so that the user's foot can easily insert into or get out of the shoe. The second support portion 620 can better accommodate the back of the user's heel and adapt to the shape of the back of the user's heel, thus effectively improving the comfort of the user.

[0058] FIG. 5 shows a schematic view of a heel support member 600 in a first configuration and in a second configuration in accordance with an embodiment of the present application. FIG. 6 shows a schematic view of the heel support member 600 in a first configuration and in a second configuration from another angle in accordance with an embodiment of the present application. In one implementation, in combination with FIGS. 1, 5 and 6, the first support portion 610 has a first configuration and a second configuration. When the foot of the user inserts into the vamp 100, the first support portion 610 is deformed from the first configuration to the second configuration under the load of the foot, and the height of at least part of the first support portion 610 is reduced. After removing the load of the foot, the first support portion 610 is restored from the second configuration to the first configuration.

[0059] When the user puts on the shoe, the first support portion 610 is able to be deformed from the first configuration in its natural state to the second configuration under the load of the user's feet. For example, the heel support member 600 can be partially compressed, so that the first support 610 is lowered enough to allow the user's foot to insert into the shoe, thereby allowing the user's foot to insert into the shoe with less plantar curvature. Once the user's foot is inserted into the shoe, the heel support member 600 can be restored to its uncompressed configuration.

[0060] In one implementation, the first support portion 610 has a first configuration and a second configuration. When the foot of the user inserts into the vamp 100, the first support portion 610 is deformed from the first configuration to the second configuration under the load of the foot, and the inclination angle of the first support portion 610 with respect to the vertical line becomes larger. After removing the load of the foot, the first support portion 610 is restored from the second configuration to the first configuration. It should be noted that the above-mentioned "vertical line" can be understood as a straight line perpendicular to the horizontal line.

[0061] Among other things, the second support portion 620 includes a middle region and two side regions. In the

second configuration, the upper part of the middle region is closer to the vamp toe portion than in the first configuration, and the uppermost area of the first support portion 610 is farther away from the vamp toe portion than in the first configuration. Illustratively, the two side regions can be located at the left and right sides of the middle region.

[0062] In this embodiment, by increasing the inclination angle of the first support portion 610 with respect to the vertical line, the size of the top open end of the shoe upper can be correspondingly increased when the user puts on the shoe, so that the user's feet can more easily insert into the shoe, which is convenient for putting on and taking off the shoe.

[0063] In one implementation, the second support portion 620 includes a middle region and two side regions. In the second configuration, the two side regions move outwards to increase the distance between the two sides of the vamp side portion. With this arrangement, the top open end of the shoe upper 10 can be widened, thus making it easier for the user's foot to insert into the shoe.

[0064] FIG. 7 shows a schematic view of a vamp heel portion in accordance with an embodiment of the present application. FIG. 8 shows a sectional view of a vamp heel portion in accordance with an embodiment of the present application. In one implementation, in combination with FIGS. 1, 7 and 8, the shoe upper 10 further includes a flexible component 700, which is disposed on the heel support member 600. When the user's foot inserts into the vamp 100, the flexible component 700 is compressed, and the flexible component 700 exerts pressure on the user's ankle. Illustratively, the flexible component 700 can include a foam layer. The flexible component 700 may extend along at least a part of the inner surface of the vamp 100 from both side edges of the upper part of the heel support member 600, to form a side section of the flexible component 700.

[0065] In this embodiment, the flexible component 700 can be disposed between the heel support member 600 and the foot to play a buffering role. The user's foot can compress the flexible component 700 during the process of inserting into the shoe, and after the foot is fully into the shoe, the flexible component 700 can expand to its complete uncompressed state or partial expanded state, thereby enhancing the comfort and stability of the foot.

[0066] FIG. 9 shows a schematic view of a shoe 20 in accordance with an embodiment of the present application. The shoe 20 in accordance with an embodiment of the second aspect of the present application, as shown in FIG. 9, includes a sole 201 and the shoe upper 10 of any of the above embodiments. Among other things, the elastic band 300 on the shoe upper 10 can be connected to the vamp 100; alternatively, the elastic band 300 on the shoe upper 10 may have a sole-connected portion 201.

[0067] By adopting the shoe upper 10 in the shoe 20 in accordance with the embodiment of the present application, the tongue 200 can be prevented from dropping after the user takes off the shoe 20, so that a sufficient distance

can be kept between the tongue 200 and the insole. This avoids obstructing the insertion of the foot due to interference between the tongue 200 and the foot when the user puts on the shoe, without manual operation by the user, thus effectively improving the user's shoe-putting on efficiency and enhancing the user's experience.

[0068] Other components of the shoe upper 10 and the shoe 20 of the above-mentioned embodiment can employ various technical schemes known to those skilled in the art now and in the future, and will not be described in detail here.

[0069] In the description of the present specification, it should be understood that, the orientation or positional relationships indicated by the terms "central", "vertical", "horizontal", "length", "width", "thickness", "shoe upper", "lower", "front", "rear", "left", "right", "vertical", "horizontal", "top", "bottom", "inner", "outer", "clockwise", "vamp-clockwise", "axial", "radial", "circumferential" etc. are based on the orientation or positional relationships shown in the accompanying drawings and are only for facilitating the description of the present application and simplifying the description, rather than indicating or implying that the device or element referred to must have a particular orientation or be constructed and operated in a particular orientation, and therefore will not be interpreted as limiting the present application.

[0070] In addition, the terms "first" and "second" are only used for descriptive purposes, and cannot be understood as indicating or implying relative importance or implicitly indicating the number of indicated technical features. Therefore, the features defined with "first" and "second" can include one or more of these features explicitly or implicitly. In the description of the present application, "a plurality of" means two or more than two, unless otherwise specifically defined.

[0071] In the present application, unless otherwise specified and limited, terms "mounting", "connecting", "connection", "fix" and the like should be understood in a broad sense, for example, they can be a fixed connection, a detachable connection, or being integrated; they can be mechanical connection, electrical connection or communication; they can be directly connected, can also be indirectly connected through an intermediate medium, and can be the internal connection of two elements or the interaction between two elements. For those of ordinary skill in the art, the specific meaning of the terms mentioned above in the present application should be construed according to specific circumstances.

[0072] In the present application, unless otherwise specified and defined, the first feature being "on" or "under" the second feature can include that the first feature and the second feature are in direct contact, and may also include that the first feature and the second feature are not in direct contact but in contact with each other through another feature between them. Moreover, the first feature being "on", "above", and "over" the second feature includes that the first feature is directly above and obliquely above the second feature, or merely means

that the first feature is horizontally higher than the second feature. The first feature being "underneath", "below", and "under" the second feature includes that the first feature is directly above and obliquely above the second feature, or merely means that the first feature is horizontally lower than the second feature.

[0073] The above disclosure provides many different implementations or examples to realize different structures of the present application. In order to simplify the disclosure of the present application, the components and arrangements of particular examples are described above. Of course, they are merely examples and are not intended to limit the present application. In addition, in the present application, reference numerals and/or reference letters can be repeated in different examples. Such repetition is for the purpose of simplicity and clarity, and does not in itself indicate a relationship between the various implementations and/or arrangements discussed.

[0074] The above is only the detailed description of the present application, but the protection scope of the present application is not limited thereto. Any person skilled in the art can readily conceive of various changes or substitutions within the technical scope disclosed in the present application, which should be encompassed by the protection scope of the present application. Therefore, the protection scope of the present application should be based on the protection scope of the claims.

Claims

1. A shoe upper **characterized by** comprising:

a vamp having a vamp toe portion and a vamp side portion that are connected to each other, the inner surface of the vamp side portion being provided with a position limiting component;
a tongue having a first portion and a second portion that are oppositely disposed, the first portion of the tongue being affixed to the vamp toe portion;
an elastic band configured to connect the second portion of the tongue with the vamp side portion, at least part of the elastic band being located between the position limiting component and the inner surface of the vamp side portion, and the second portion of the tongue being in limiting mating with the position limiting component under the action of the elastic band.

2. The shoe upper according to claim 1, **characterized in that** one end of the elastic band is located between the position limiting component and the inner surface of the vamp side portion, and the other end of the elastic band is connected to the second portion of the tongue, and the side edge of the second portion of the tongue abuts against the position limiting com-

ponent under the action of the elastic band.

3. The shoe upper according to claim 2, **characterized in that** one end of the elastic band is connected between the position limiting component and the inner surface of the vamp side portion.
4. The shoe upper according to claim 1, **characterized in that** the position limiting component comprises an interior lining layer and an opening formed in the interior lining layer, one end of the elastic band passes through the opening and at least extends to somewhere between the interior lining layer and the inner surface of the vamp side portion, and the other end of the elastic band is connected to the second portion of the tongue, and the side edge of the second portion of the tongue abuts against the opening under the action of the elastic band.
5. The shoe upper according to claim 1, **characterized in that** the other end of the elastic band is connected to the side edge of the second portion of the tongue.
6. The shoe upper according to any one of claims 1 to 5, **characterized in that** there are two elastic bands and two position limiting components, and each of the two position limiting components is located on one side of the vamp side portion, and the tongue and the two position limiting components are engaged in limiting mating under the action of the two elastic bands, respectively.
7. The shoe upper according to claim 1, **characterized in that** the position limiting component comprises a first position limiting component and a second position limiting component, the vamp side portion comprises a first vamp side portion and a second vamp side portion that are oppositely disposed, one end of the elastic band is connected between the first position limiting component and the inner surface of the first vamp side portion, and the other end of the elastic band is connected between the second position limiting component and the inner surface of the second vamp side portion.
8. The shoe upper according to claim 1, **characterized in that** the vamp side portion comprises a first vamp side portion and a second vamp side portion that are oppositely disposed, and the position limiting component comprises a first interior lining layer, a first opening formed in the first interior lining layer, a second interior lining layer, and a second opening formed in the second interior lining layer, wherein the first interior lining layer is located on the inner surface of the first vamp side portion, and the second interior lining layer is located on the inner surface of the second vamp side portion; and wherein one end of the elastic band passes through the first opening and

at least extends to somewhere between the first interior lining layer and the inner surface of the first vamp side portion, and the other end of the elastic band passes through the second opening and at least extends to somewhere between the second interior lining layer and the inner surface of the second vamp side portion.

9. The shoe upper according to claim 7 or 8, **characterized in that** the intermediate segment of the elastic band is connected to the tongue, and alternatively, the intermediate segment of the elastic band penetrates the tongue.
10. The shoe upper according to claim 1, **characterized in that** the vamp further has a vamp heel portion connected to the vamp side portion, and the shoe upper further comprises:
a heel support member disposed at the vamp heel portion, wherein the heel support member is configured to be a rigid structure, and alternatively, at least part of the heel support member is configured to be a flexible structure.
11. The shoe upper according to claim 10, **characterized in that** the heel support member comprises a first support portion and a second support portion located at the bottom end of the first support portion, wherein at least part of the second support portion protrudes outwards and is configured for surrounding the back of the heel of a user, and the first support portion inclines outwards from bottom to top.
12. The shoe upper according to claim 11, **characterized in that** the first support portion has a first configuration and a second configuration, wherein when the foot of the user inserts into the vamp, the first support portion is deformed from the first configuration to the second configuration under the load of the foot, and the height of at least part of the first support portion is reduced, and wherein after removing the load of the foot, the first support portion is restored from the second configuration to the first configuration.
13. The shoe upper according to claim 11, **characterized in that** the first support portion has a first configuration and a second configuration, wherein when the foot of the user inserts into the vamp, the first support portion is deformed from the first configuration to the second configuration under the load of the foot, and the inclination angle of the first support portion with respect to a vertical line becomes larger, and wherein after removing the load of the foot, the first support portion is restored from the second configuration to the first configuration.
14. The shoe upper according to claim 12 or 13, **char-**

acterized in that the second support portion comprises a middle region and two side regions, and when in the second configuration, the upper part of the middle region is closer to the vamp toe portion than in the first configuration, and the uppermost region of the first support portion is farther away from the vamp toe portion than in the first configuration. 5

15. The shoe upper according to claim 12 or 13, **characterized in that** the second support portion comprises a middle region and two side regions, and when in the second configuration, the two side regions move outward to increase the distance between the two sides of the vamp side portion. 10

16. The shoe upper according to claim 10, further comprising:
a flexible component disposed on the heel support member, wherein when a user's foot inserts into the vamp, the flexible component is compressed, and the flexible component exerts pressure on the user's ankle. 15 20

17. The shoe upper according to claim 16, **characterized in that** the flexible component extends along at least a part of the inner surface of the vamp from both side edges of the upper part of the heel support member, to form a side section of the flexible component. 25

18. An article of footwear, **characterized by** comprising a sole and the shoe upper according to any one of claims 1 to 17. 30

19. The article of footwear according to claim 18, **characterized in that** the elastic band of the shoe upper has a sole-connected portion. 35

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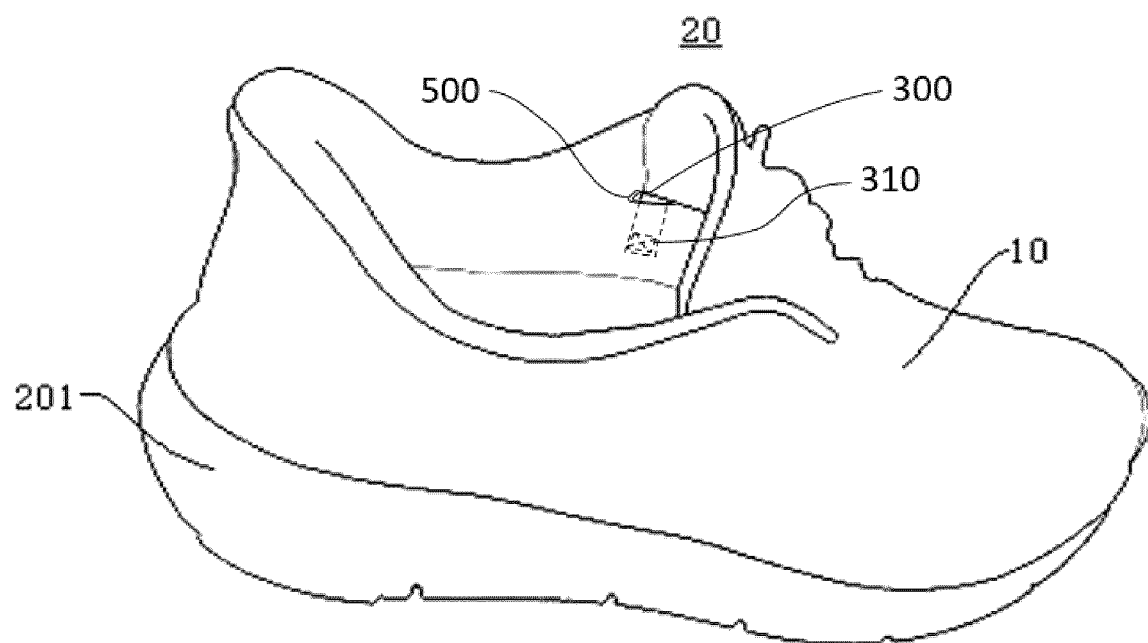


FIG. 1

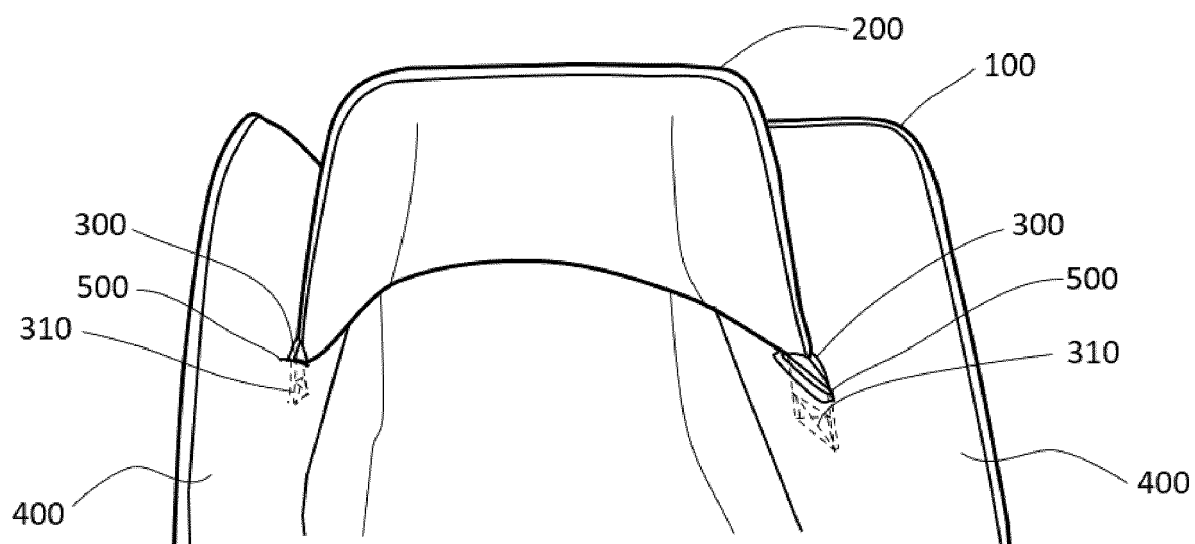


FIG. 2A

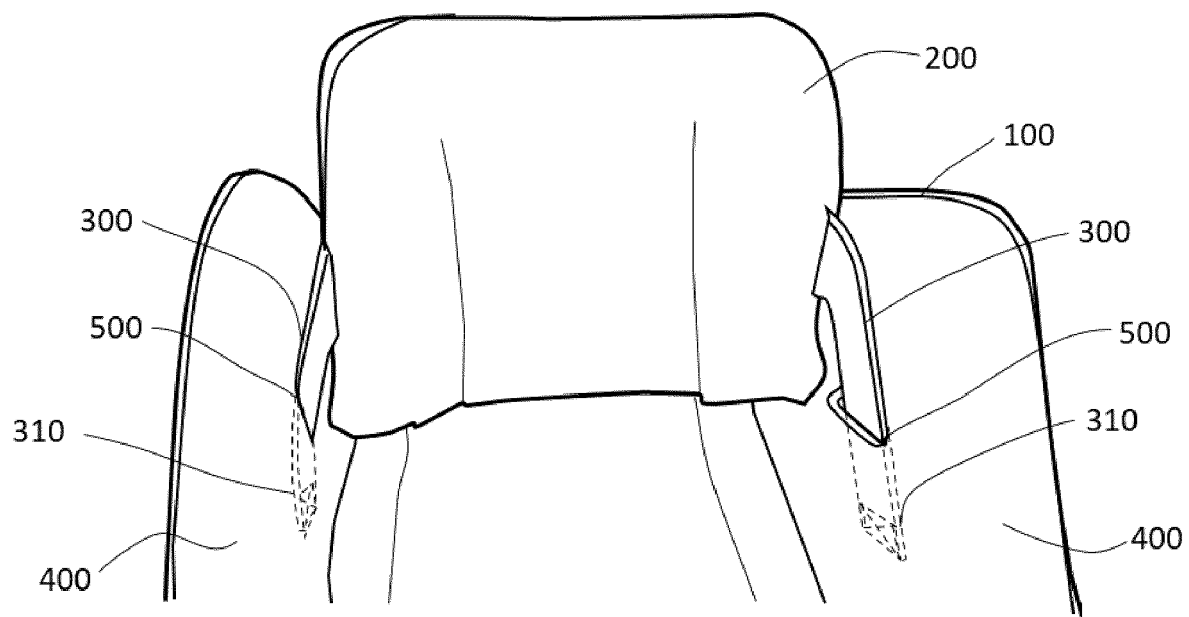


FIG. 2B

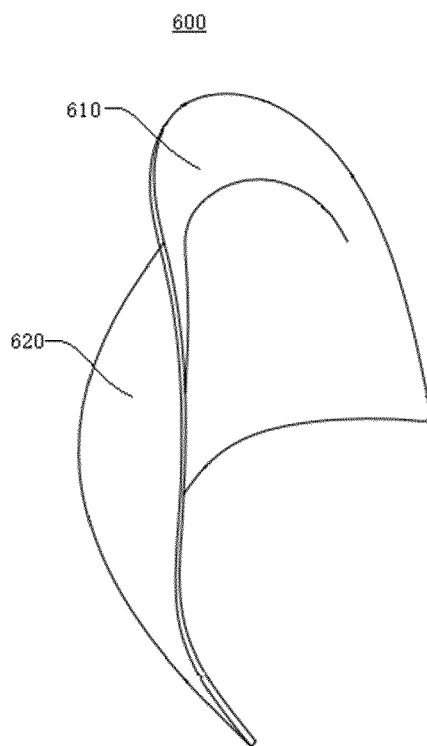


FIG. 3

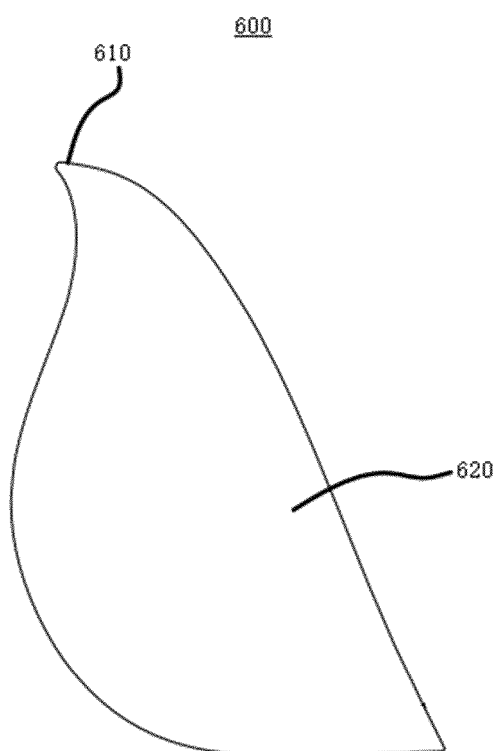


FIG. 4

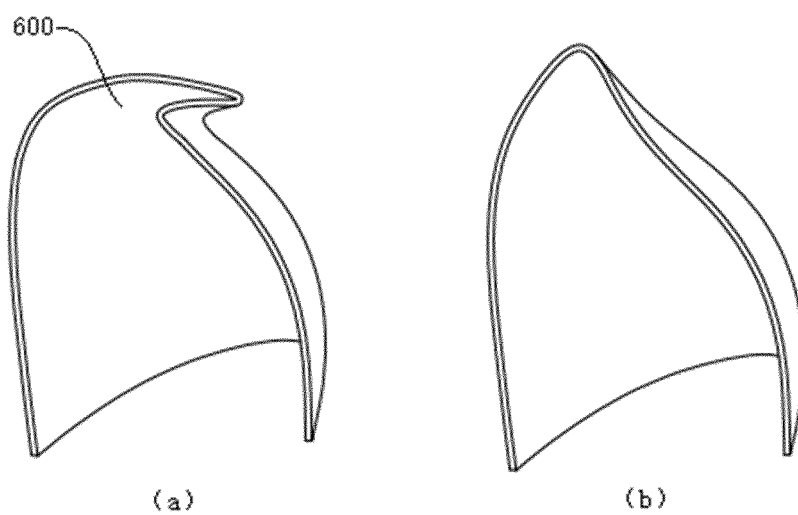


FIG. 5

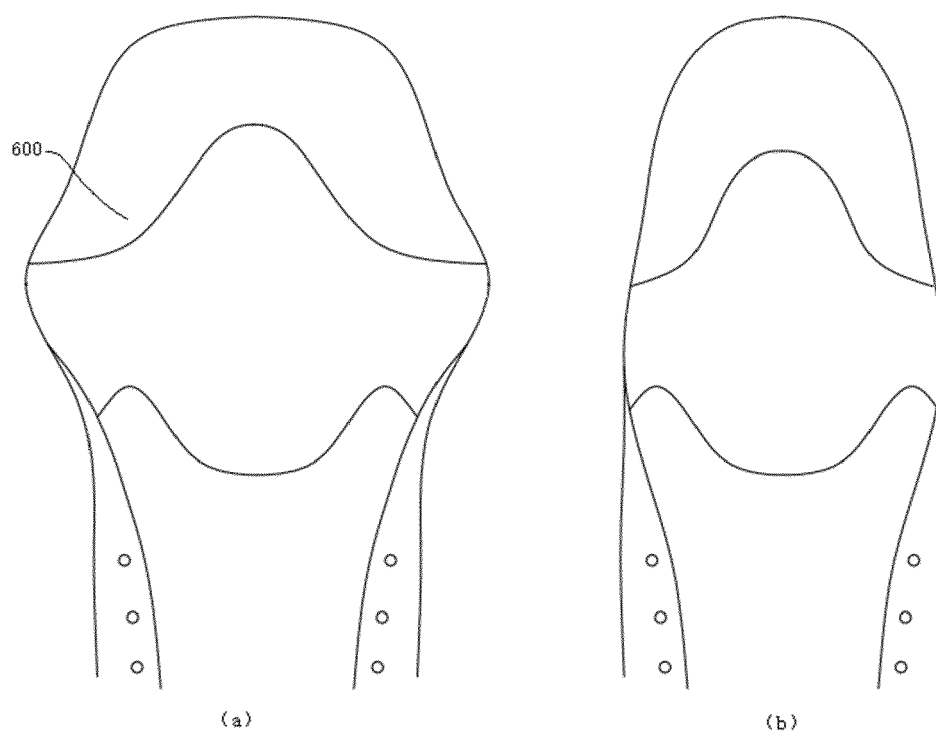


FIG. 6

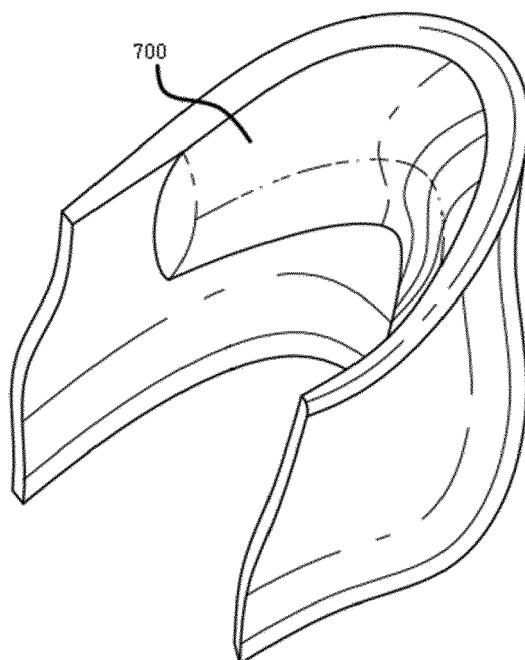


FIG. 7

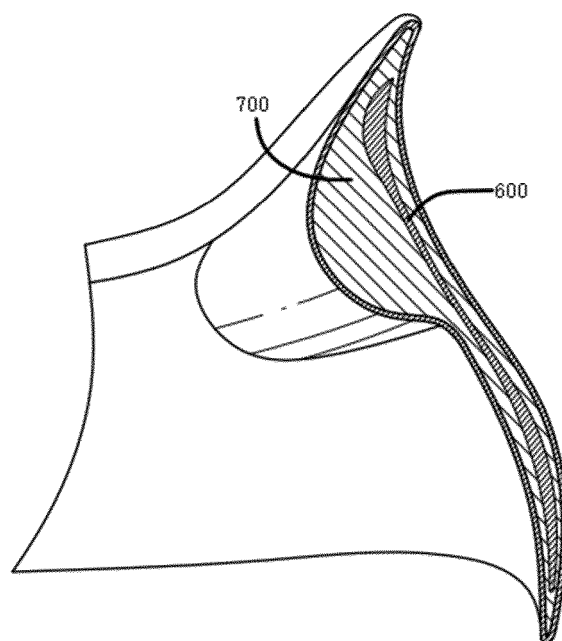


FIG. 8

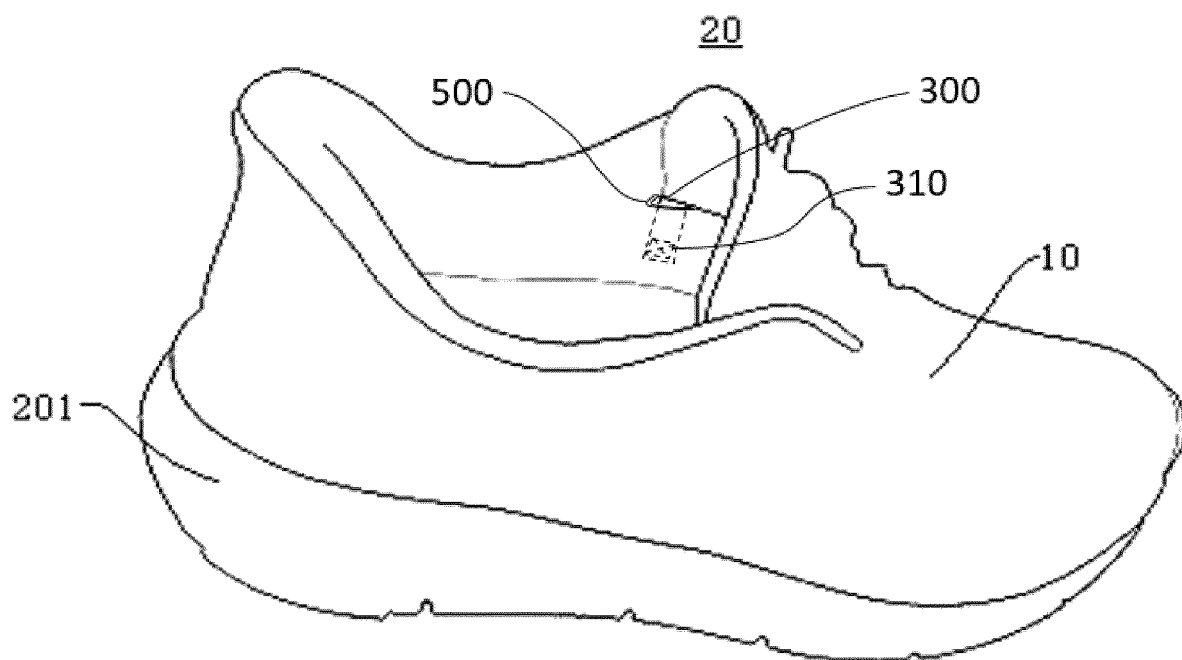


FIG. 9



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X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

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26-09-2024

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