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(54) **STRUCTURE OF SHOE**

(71) Applicant: **HSIEN-HSIAO HSIEH**, CHANGHUA COUNTY (TW)

(72) Inventor: **HSIEN-HSIAO HSIEH**, CHANGHUA COUNTY (TW)

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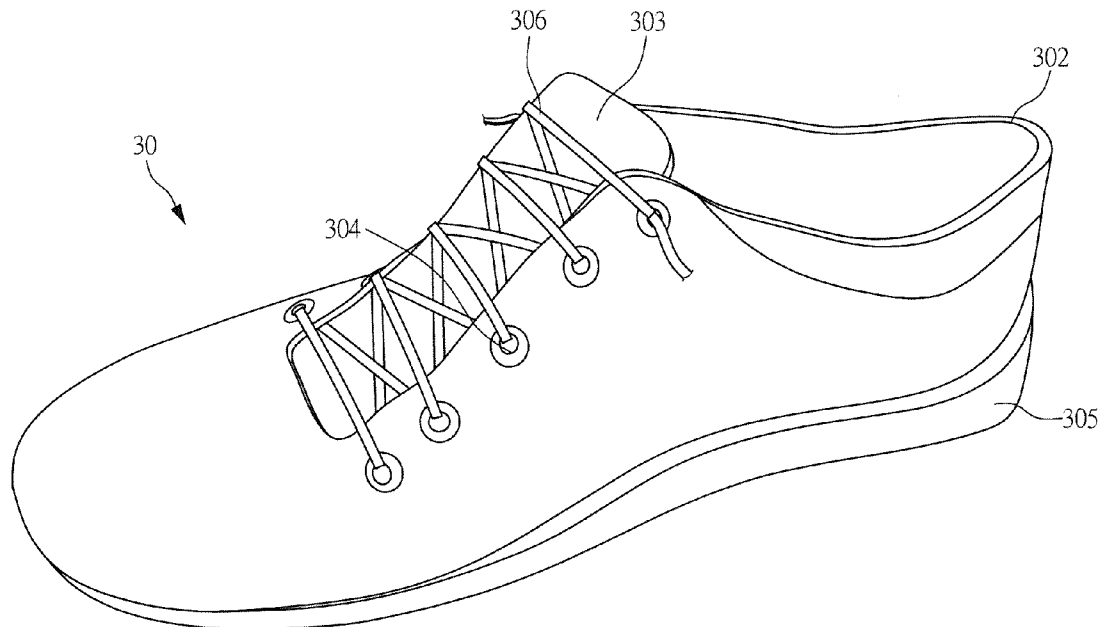
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(57) **ABSTRACT**

A structure of shoe is formed of a shoe-forming piece through thermoplastic molding. The shoe-forming piece is formed in an integrated form through weaving a plurality of set yarns. The shoe-forming piece includes a first shoe cover and a second shoe cover. The first shoe cover and the second shoe cover are symmetric to each other. The first shoe cover includes a first shoe body and a first opening. The second shoe body includes a second shoe body and a second opening. The first opening and the second opening are coupled to each other. The first shoe body is inserted through the second opening to have the first shoe body received in the second shoe body and then subjected to thermoplastic molding to form the structure of shoe. As such, advantages of making the manufacturing process efficient and easy and reducing the manufacturing cost can be achieved.



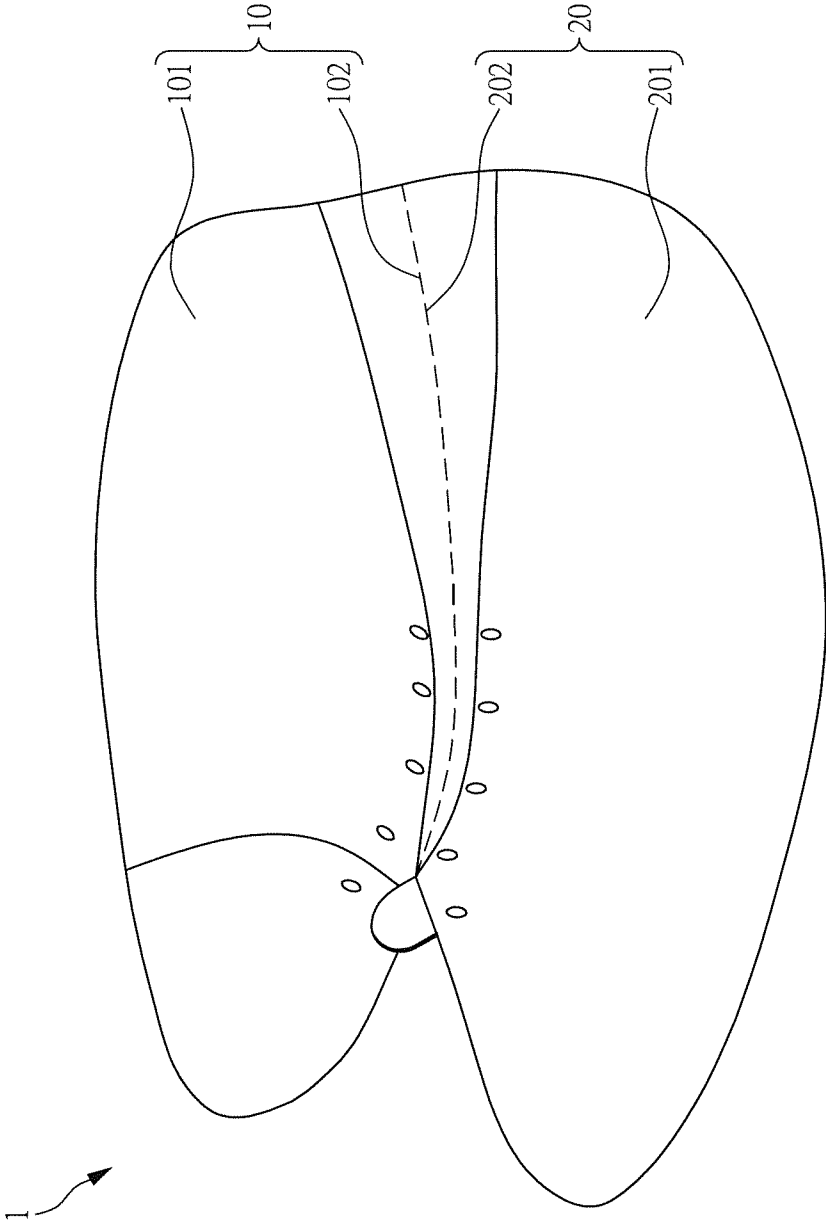


FIG. 1

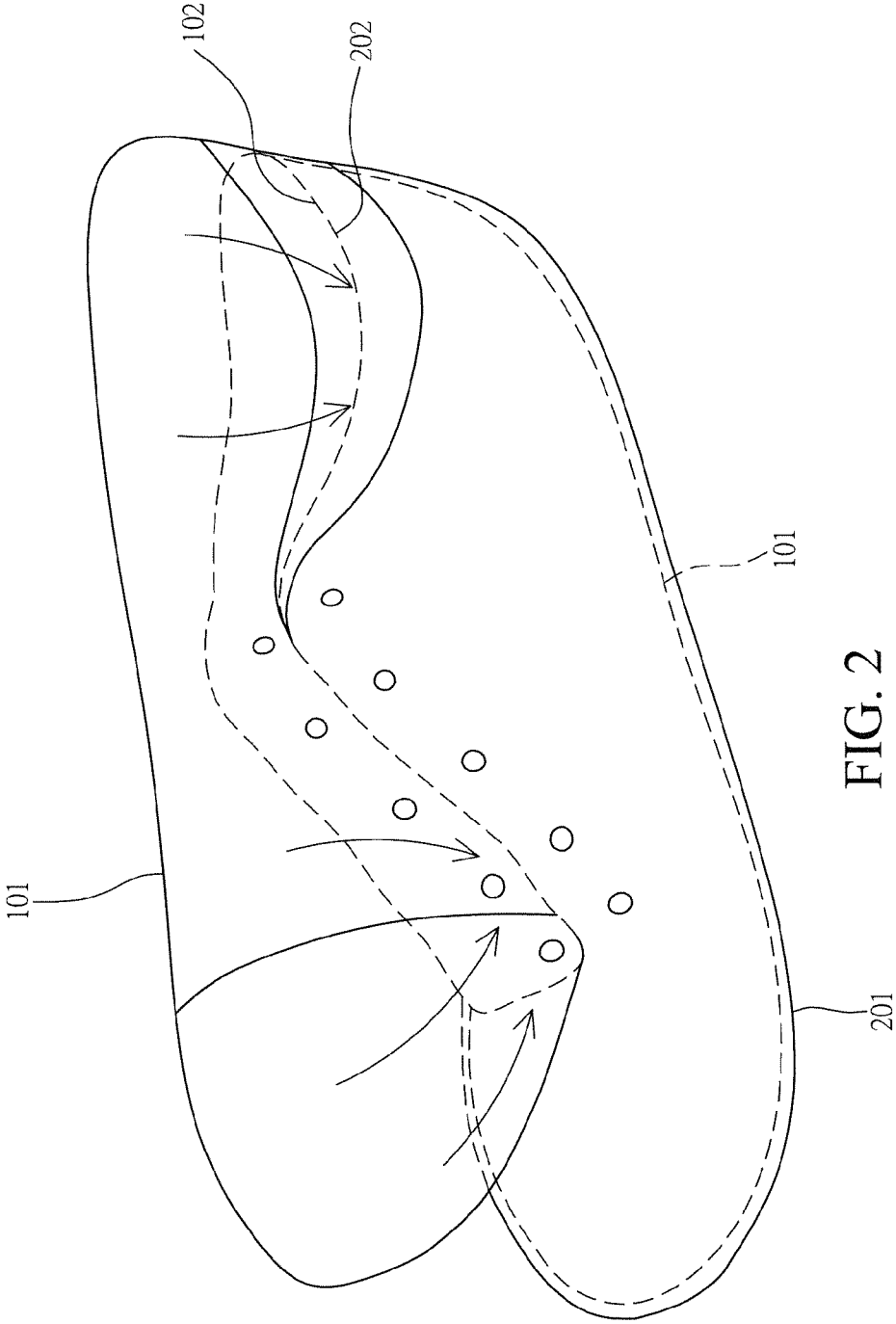


FIG. 2

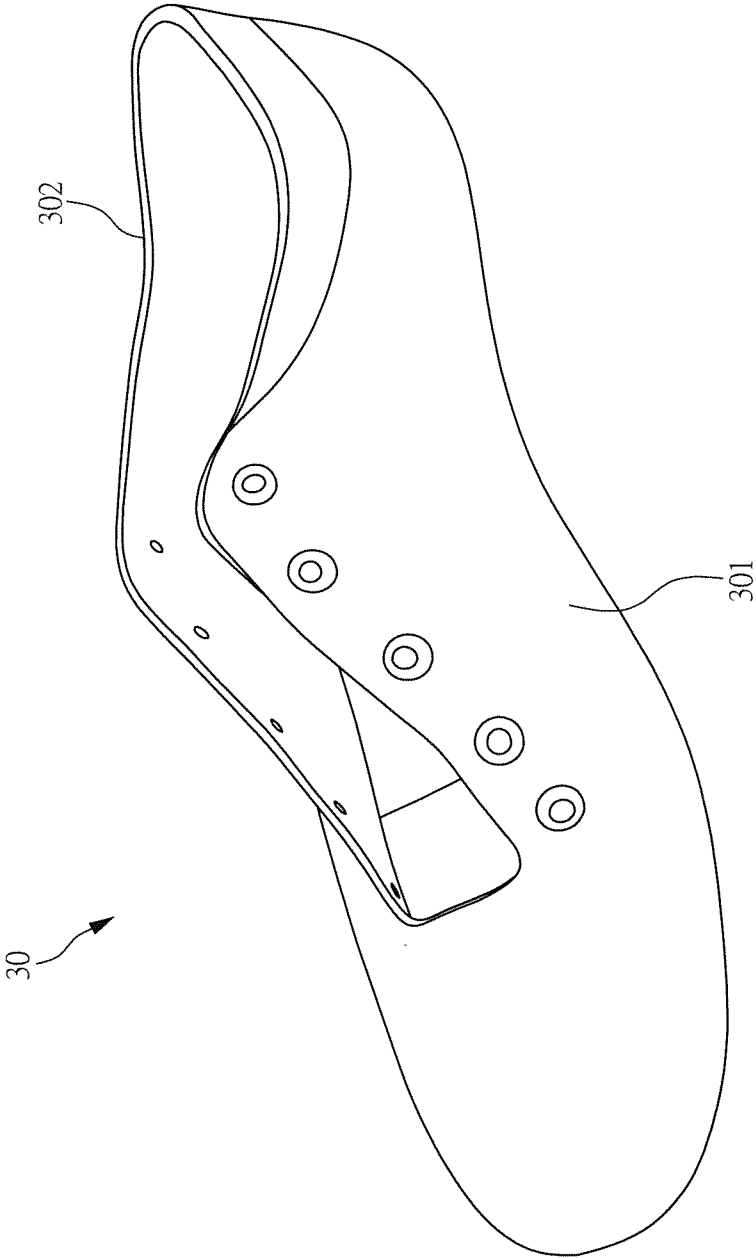


FIG. 3

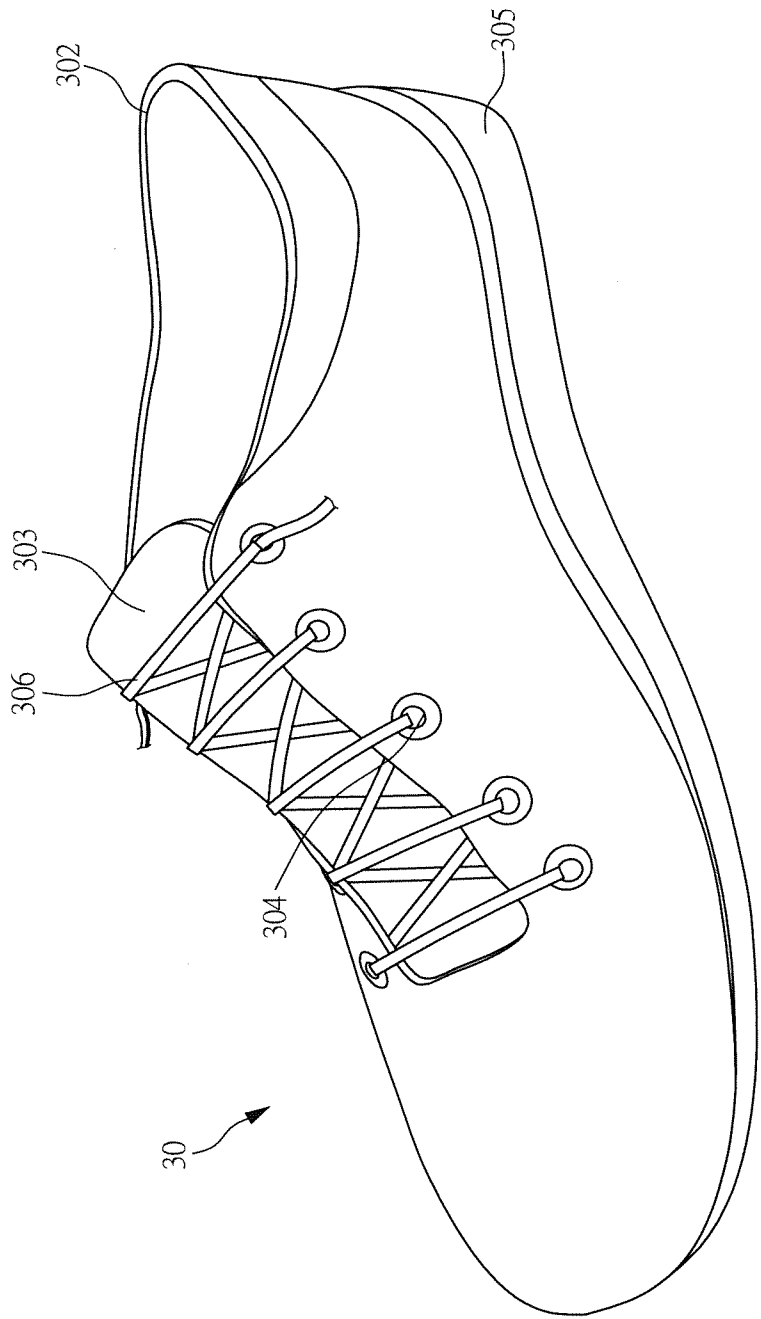


FIG. 5

STRUCTURE OF SHOE

FIELD OF THE INVENTION

[0001] The present invention relates to an improved structure of shoe, and in particular to an improved structure of shoe that is made through the provision of a shoe-forming piece formed in an integrated form through weaving a plurality of set yarns and thermoplastic molding of the shoe-forming piece so as to make the manufacturing process efficient and easy and effectively reduce the manufacturing cost.

BACKGROUND OF THE INVENTION

[0002] The purpose of shoes is to protect feet for safety in order to eliminate the risk of being pierced. In order to protect the human feet, a user must frequently wear the shoes for walking. This makes it possible to have the feet long enclosed in the shoes. If the shoes are of poor air ventilation, it is very easy to cause diseases of the feet.

[0003] Conventional shoes often suffer poor air ventilation in the entirety thereof due to the material used, or may even cause an uncomfortable feeling. In addition, in the manufacturing process of the conventional shoes, a large amount of the material used to make the shoes is wasted due to the necessary operations of cutting and trimming. This causes an issue of environmental protection and also increases the cost of manufacturing shoes.

[0004] In view of this, the present invention aims to provide an improved structure of shoe that is made through the provision of a shoe-forming piece formed in an integrated form through weaving a plurality of set yarns and thermoplastic molding of the shoe-forming piece so as to make the manufacturing process efficient and easy and effectively reduce the manufacturing cost.

SUMMARY OF THE INVENTION

[0005] The primary object of the present invention is to provide an improved structure of shoe that is made through the provision of a shoe-forming piece formed in an integrated form through weaving a plurality of set yarns and thermoplastic molding of the shoe-forming piece so as to make the manufacturing process efficient and easy and effectively reduce the manufacturing cost.

[0006] To realize the above object, the present invention provides an improved structure of shoe, which comprises a shoe body and an opening and is formed of a shoe-forming piece through thermoplastic molding and is characterized in that the shoe-forming piece is formed in an integrated form through weaving a plurality of set yarns. The shoe-forming piece comprises a first shoe cover and a second shoe cover. The first shoe cover and the second shoe cover are symmetric to each other. The first shoe cover comprises a first shoe body and a first opening. The second shoe body comprises a second shoe body and a second opening. The first opening and the second opening are coupled to each other. The first shoe body is inserted through the second opening to have the first shoe body received in the second shoe body and then subjected to thermoplastic molding to form the structure of shoe, wherein the first opening and the second opening, after the thermoplastic molding, collectively form the opening of the shoe and the first shoe body and the second shoe body, after the thermoplastic molding, collectively constitute the shoe body. As such, the manufacturing process is made efficient and easy and the manufacturing cost is effectively reduced. The entire

structure is light-weighted and is easy to wear on a foot or carry to provide the effects of air ventilation and comfortable-ness.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] The present invention will be apparent to those skilled in the art by reading the following description of preferred embodiments thereof with reference to the drawings, in which:

[0008] FIG. 1 is a developed view of a shoe-forming piece according to the present invention;

[0009] FIG. 2 is a schematic view illustrating a first shoe body being received into a second shoe body according to the present invention;

[0010] FIG. 3 is a perspective view of the present invention;

[0011] FIG. 4 is an exploded view showing the present invention combined with a tongue and an outsole structure; and

[0012] FIG. 5 is an exploded view showing the present invention combined with a tongue, an outsole structure, and a shoestring.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0013] With reference to the drawings and in particular to FIGS. 1-3, which show an improved structure of shoe, generally designated at 30, according to the present invention, the shoe 30 comprises a shoe body 301 and an opening 30 and is formed through thermoplastic-molding of a shoe-forming piece 1. The shoe-forming piece 1 is formed by integrally weaving a plurality of shaping yarns. The shoe-forming piece comprises a first shoe cover 10 and a second shoe cover 20. The first shoe cover 10 and the second shoe cover 20 are symmetrical to each other. The first shoe cover 10 comprises a first shoe body 101 and a first opening 102 and the second shoe cover 20 comprises a second shoe body 201 and a second opening 202. The first opening 102 and the second opening 202 are coupled to each other. The first shoe body 101 is inserted through the second opening 202 to have the first shoe body 101 received in the second shoe body 201 and then subjected to thermoplastic molding to form the improved structure of shoe 30. The first opening 102 and the second opening 202, after the thermoplastic molding, collectively form the opening 302 of the shoe and the first shoe body 101 and the second shoe body 201, after the thermoplastic molding, collectively constitute the shoe body 301. As such, the improved structure of shoe 30 is different from the conventionally made shoes, for the conventional way of making shoe requires trimming and cutting to complete the manufacture of shoe, but the improved structure of shoe 30 requires no specific trimming and cutting operations so that the process of shoe manufacturing is made efficient and easy and capable of effectively lowering manufacturing cost. Further, the improved structure of shoe of the present invention is manufactured to provide effects of air ventilation and conformable-ness for being worn by a user by taking advantage of the property of the shaping yarn and being formed by weaving a plurality of shaping yarns. The structure, in the entirety thereof, is light-weighted, allowing easy wearing on a foot or carrying.

[0014] Further, the improved structure of shoe may additionally comprise other components, such as a tongue, an

outsole structure, and setting shoestring in string holes according to desired functions. Reference is further made to FIGS. 4 and 5.

[0015] Referring to FIG. 4, which is an exploded view showing the present invention combined with a tongue and an outsole structure, together with FIGS. 1-3, the improved structure of shoe 30 further comprises a tongue 303, which is arranged in the opening 302. Further, an outsole structure 305 is set under the shoe body 301. The tongue 303 is also made through weaving a plurality of set yarns. Alternatively, the tongue 303 can be formed integrally by weaving the same set yarns. Thus, a user, when put on the shoe, does not feel irritated or uncomfortable at the foot and is provided with the same effects of air ventilation and conformableness.

[0016] Referring to FIG. 5, which is an exploded view showing the present invention combined with a tongue, an outsole structure, and a shoestring, together with FIGS. 1-3, the improved structure of shoe 30 comprises a plurality of string holes 304 at locations adjacent to the opening 302 and a shoestring 306 is set through the string holes 304. Further, the improved structure of shoe of the present invention is applicable, according to the desired use thereof, to a mountain-hiking shoe, a water/ground dual-purpose shoe, all kinds of functional sports shoes, an outdoor shoe, and an indoor shoe.

[0017] Based on the above description, the features of the present invention are summarized as follows:

[0018] (1) The present invention is formed in an integrated form through weaving a plurality of set yarns. This is different from the conventional way of shoe making, where special operations of trimming and cutting are required. The present invention does not the special operations of cutting and trimming so that the manufacturing process is efficient and easy and can reduce the cost of manufacturing.

[0019] (2) The present invention provides effects of air ventilation and conformableness when worn by a user.

[0020] (3) The present invention is light-weighted for the entire structure thereof and is easy to wear or carry.

[0021] Although the present invention has been described with reference to the preferred embodiments thereof, it is apparent to those skilled in the art that a variety of modifications and changes may be made without departing from the scope of the present invention which is intended to be defined by the appended claims.

What is claimed is:

1. A structure of shoe, which comprises a shoe body and an opening and is formed of a shoe-forming piece through thermoplastic molding, characterized in that:

the shoe-forming piece is formed in an integrated form through weaving a plurality of set yarns, the shoe-forming piece comprising a first shoe cover and a second shoe cover, the first shoe cover and the second shoe cover being symmetric to each other, the first shoe cover comprising a first shoe body and a first opening, the second shoe body comprising a second shoe body and a second opening, the first opening and the second opening being coupled to each other, the first shoe body being inserted through the second opening to have the first shoe body received in the second shoe body and then subjected to thermoplastic molding to form the structure of shoe, wherein the first opening and the second opening, after the thermoplastic molding, collectively form the opening of the shoe and the first shoe body and the second shoe body, after the thermoplastic molding, collectively constitute the shoe body.

2. The structure of shoe as claimed in claim 1 further comprising a tongue that is arranged in the opening.

3. The structure of shoe as claimed in claim 1, wherein a plurality of string holes is formed adjacent to the opening.

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