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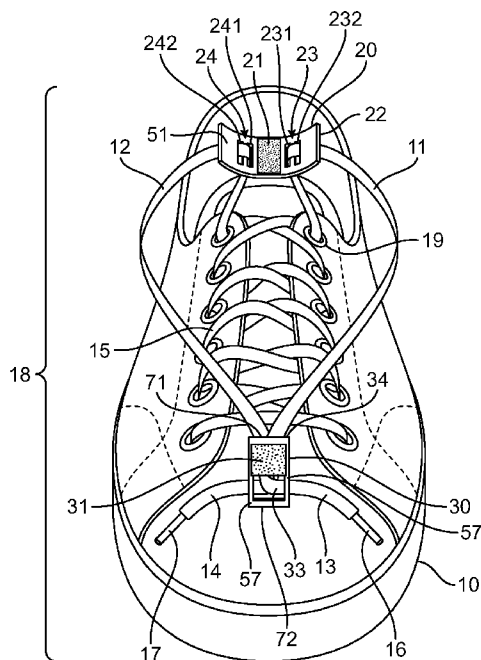


FIG. 1

(57) Abstract: A lace-tying system with two components through which both sides of a lace are laced is disclosed. The first component can slide down the lace to tighten the article of footwear or up the lace to loosen the article of footwear. After the first component is pushed down to the article of footwear top to tighten the article of footwear, the second component is attached to the first component using a fastener, thus forming a double bow with the portions of the lace between the first component and the second component.



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LACE-TYING SYSTEM

BACKGROUND

[0001] The present embodiments relate to devices for tying laces, such as the laces of an article of footwear, that would allow a wearer to quickly and easily fasten his or her shoelaces.

[0002] Articles of footwear typically have at least two major components, an upper that provides the enclosure for receiving the foot, and a sole secured to the upper. In many articles, the upper is fastened around the foot using laces to secure the article properly to the foot. The laces are laced through the article eyelets, and then tied at the front upper surface of the article, typically leaving a double bow.

SUMMARY

[0003] This summary is intended to provide an overview of the tying system, and is not intended to identify its essential features or key elements, nor is it intended to be used to determine the scope of the claims. The proper scope of the claims may be ascertained from the detailed description of the embodiments provided below, the figures referenced therein and the language in the claims.

[0004] Embodiments of the tying system have two components made from a relatively soft and flexible material such as, for example, leather or fabric, that cooperate to enable a wearer to tie his or her laces quickly and easily. The lace is first laced through the eyelets of the article of footwear, leaving a length of lace on either side of the article of footwear. Then the two ends of the lace are laced through the tying system, as described below.

[0005] In one aspect, a lace-tying system includes a first component having a top side and a bottom side with at least one opening through which two sides of a lace may be laced from the bottom side of the first component. The first component also has a first fastener portion of a fastener on the top side of the first component. The lace-tying system includes a second component with at least one first opening at one end through which the two sides of the lace may be laced, and two additional openings that are spaced apart from the first opening and are spaced apart from each other. The second component also has a second fastener portion of the fastener on a bottom side of the second component. The first fastener portion and the second fastener portion of the fastener are complementary to each other such that the first component is configured to be removably attached to the second component. The first component and second component are configured such that when the lace-tying system is in use the two sides of the lace can be laced through the first component and then through the second component. The first component can be pushed down to tighten the lace on an article of footwear, and the second component can be attached to the first component by attaching the second fastener portion to the first fastener portion.

[0006] In another aspect, a lace-tying system includes a first component having a top side and a bottom side. The first component has a first fastener portion of a fastener disposed on the top side of the first component, and one or more openings on either side of the first fastener portion through which a first lace side and a second lace side can be slidably laced from the bottom side of the first component. The lace-tying system also includes a second component having a first opening that is sufficiently large to slidably accommodate both the first lace side and the second lace side and further has a second fastener portion of the fastener affixed to a bottom side of the second component. The second component has a first additional opening and a second additional opening, the first additional opening and the second additional opening being spaced apart from the first opening and from each other, where the first additional opening is dimensioned such that one of the first lace side and the second lace side can be laced through the first additional opening, and the second additional opening is dimensioned such that one of the second lace side and the first lace side can be laced through the second additional opening. The second fastener portion is complementary to the first fastener portion such that the second component can be removably attached to the first component by attaching the second fastener portion to the first fastener portion.

[0007] In another aspect, an article of footwear includes a lace laced through eyelets in the article of footwear, leaving a first side of the lace and a second side of the lace extending from the article of footwear, said first side of the lace and said second side of the lace being laced through a first component and a second component. The first component includes a first fastener portion of a fastener on a top side of the first component, and the second component includes a second fastener portion of the fastener on a bottom side of the second component such that the second component may be removably attached to the first component by attaching the second fastener portion to the first fastener portion. The first side of the lace and the second side of the lace are laced through the first component from beneath the first component, where the first side

of the lace and the second side of the lace are then laced into the second component through a first opening at a distal end of the second component and out of the second component through a second opening and a third opening at a proximal end of the second component. The second opening and the third opening are spaced apart from each other and from the first opening, and wherein the first component and the second component are made from a relatively soft and flexible material.

[0008] In another aspect, an article of footwear includes a lace laced through eyelets in the article of footwear, leaving a first side of the lace and a second side of the lace extending from the article of footwear. A first component has a first fastener portion of a fastener affixed at the center of the top side of the first component, and at least one first opening on the first side of the first fastener portion and at least one second opening on the second side of the first fastener portion. A second component has a first opening at a distal end, and a second opening and a third opening spaced apart from each other and from the first opening. A second fastener portion of the fastener is affixed to the second component, where the first side of the lace is laced through the at least one first opening on the first side of the first fastener portion and the second side of the lace is laced through the at least one second opening on the second side of the first fastener portion. The first side of the lace is further laced through the first opening of the second component and out of one of the second opening and third opening of the second component, and the second side of the lace is laced through the first opening of the second component and out of the other one of the third opening and second opening of the second component. The first component can be pushed down to the top of the article of footwear to close the article of footwear around the wearer's foot and the second component can then be removably attached to the first component by attaching the second fastener portion to the first fastener portion, such that the first side of the lace and the second side of the lace each form a bow on either side of the article of footwear.

[0009] Other structures, objects, features and advantages of the embodiments will be apparent to one of ordinary skill in the art upon examination and study of the following detailed description and the accompanying figures. It is intended that all such additional structures, features and advantages be included within this description and this summary, be within the scope of the embodiments and be protected by the claims set forth below.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] The embodiments can be better understood with reference to the following drawings and description. The components in the figures are not necessarily to scale, emphasis instead being placed upon illustrating the principles of the embodiments. Moreover, in the figures, like reference numerals designate corresponding parts throughout the different views.

[0011] FIG. 1 is a front perspective view of an article of footwear with its lace laced through an embodiment of the lace-tying system, showing the lace-tying system in an initially deployed state.

[0012] FIG. 2 shows the two components of the lace-tying system of FIG. 1.

[0013] FIG. 3 is a front perspective view of an article of footwear with its lace laced through an embodiment of the lace-tying system, showing the lace-tying system folded partially over the top of the article of footwear.

[0014] FIG. 4 is a front perspective view of an article of footwear with its lace laced through an embodiment of the lace-tying system, showing the lace-tying system just before the second component is attached to the first component.

[0015] FIG. 5 is a front perspective view of an article of footwear with its lace laced through an embodiment of the lace-tying system, showing the lace-tying system with the second component attached to the first component.

[0016] FIG. 6 is a perspective side top view of an embodiment of the first component, showing a first fastener portion of a hook-and-loop fastener on its top surface.

[0017] FIG. 7 is a front view of the embodiment shown in FIG. 6.

[0018] FIG. 8 is a top perspective view of the embodiment shown in FIG. 5.

[0019] FIG. 9 is a perspective view of a first embodiment of the second component.

[0020] FIG. 10 is a top view of the embodiment shown in FIG. 9.

[0021] FIG. 11 is a bottom view of the embodiment shown in FIG. 9, showing a second fastener portion of a hook-and-loop fastener on its bottom surface.

[0022] FIG. 12 is a perspective top view of a second embodiment of the second component.

[0023] FIG. 13 is a bottom view of the embodiment shown in FIG. 12.

[0024] FIG. 14 is a perspective top view of another embodiment of the second component.

DETAILED DESCRIPTION

[0025] For clarity, the detailed descriptions herein describe certain exemplary embodiments, but the disclosure herein may be applied to any tying system comprising certain of the features described herein and recited in the claims.

[0026] FIG. 1 is a front perspective view of an article of footwear 10, herein also referred to simply as shoe 10. Shoe 10 may further be associated with an embodiment of a first component 20 and an embodiment of a second component 30, which collectively comprise a lace-tying system 18. Although the embodiments shown in the figures depict an article of footwear in the form of a generic athletic shoe, it should be understood that other embodiments of the lace-tying system could be used with other kinds of footwear incorporating a lace of some kind. Examples of other footwear that could be used with lace-tying system 18 include tennis shoes, running shoes, walking shoes, formal footwear, basketball shoes, baseball shoes, soccer shoes, boots, hiking boots, skating boots as well as any other kind of footwear incorporating a lace that requires tying.

[0027] The embodiment is shown in FIG. 1 in an initially deployed (or unfastened) state. In particular, shoe 10 comprises a lace 15, which is laced through the eyelets of the shoe 10. In some embodiments, first lace side 11 and second lace side 12 of lace 15 are laced through lace-tying system 18 in the manner described below in order to enable a wearer to quickly and easily fasten his or her shoelaces.

[0028] For purposes of illustrating the components for lace-tying system 18, first component 20 and second component 30 are shown in isolation in FIG. 2. In addition, in the following discussion, reference is made to FIGS. 6 through 11, which illustrate enlarged isometric views of first component 20 and/or second component 30, including exemplary configurations of the association of lace 15 with first component 20 and second component 30.

[0029] Referring specifically now to FIG. 2, in some embodiments first component 20 and second component 30 of lace-tying system 18 may include provisions for lacing portions of lace 15 through first component 20, such that when first component 20 is pushed down to the top of shoe 10, first component 20 binds to lace 15 and cannot be easily dislodged. In some embodiments, each of first component 20 and second component 30 may be associated with lace receiving portions, including for example, lace receiving openings. In some embodiments, first component 20 and second component 30 each comprise one or more groups of openings for fastenably associating with a portion of lace 15.

[0030] In some embodiments, first component 20 may include first set of openings 23 and second set of openings 24, also referred to simply as openings 23 and openings 24, which are configured to receive opposing sides or ends of a lace. In some cases, first set of openings 23 further include slot 231 and slot 232, while second set of openings 24 further include slot 241 and 242. In different embodiments, the number, shape and/or arrangement of slots comprising openings 23 and openings 24 can be varied. In the example shown in FIG. 2, openings 23 and openings 24 each comprise two slots, but in other embodiments openings 23 and openings 24 may comprise any number of openings. Moreover, the shape of the slots comprising openings 23 and openings 24 may be any shape including, but not limited to: circular shapes, oval shapes, star shapes, hexagonal shapes, polygonal shapes, rectangular shapes or any other shapes. Still further, while the current embodiment illustrates slots that are approximately parallel, the relative orientation of two or more slots could be varied in other cases. The number, shape and arrangement of slots comprising each of openings 23 and openings 24 could vary according to factors including ease of use, lace type, desired tensioning as well as possibly other factors.

[0031] Second component 30 may also include openings for associating with sides and/or end portions of lace 15. In some embodiments, second component 30 may include first side opening 35 as well as second side opening 36 that are associated with a first side edge 77 and a second side edge 78,

respectively, of second component 30. In addition, second component 30 may further include distal opening 34. For example, as seen in FIG. 2, as well as in FIGS. 9-11, first lace side 11 and second lace side 12 of lace 15 may be laced into second component 30 via distal opening 34 at distal end 71 of second component 30. As described here, distal end 71 may be an end of second component 30 that is disposed further from the ankle or heel when second component 30 is engaged with first component 20. In other words, distal end 71 may be disposed closer to a forward end of shoe 10.

[0032] In some cases, distal opening 34 may be large enough to slidably accommodate first lace side 11 and second lace side 12 of lace 15. After passing through distal opening 34, first lace side 11 and second lace side 12 of lace 15 may pass up through first intermediate opening 75 and back down through second intermediate opening 76. After passing through second intermediate opening 76, first lace side 11 and second lace side 12 of lace 15 may extend out through first side opening 35 and second side opening 36, respectively, at proximal end 72 (disposed opposite of distal end 71) of second component 30. In some cases, first side opening 35 and second side opening 36 may be spaced apart from distal opening 34, as well as from one another.

[0033] In the embodiment of lace-tying system 18 shown in FIG. 1, the distal opening 34 in second component 30 is an open end of second component 30. First side opening 35 and second side opening 36 are shown in FIGS. 1-5 at the proximal ends of the first side edge 77 and the second side edge 78, respectively, of second component 30. However, these openings could also be placed at the distal end of second component 30.

[0034] In different embodiments, one or more intermediate openings, as introduced above, may be optional. In some cases, inserting lace 15 through first intermediate opening 75 and second intermediate opening 76 may help hold second component 30 in place on lace 15. However, in other embodiments, second component 30 may not include first intermediate opening 75 and/or second intermediate opening 76. In embodiments without first intermediate

opening 75 and second intermediate opening 76, first lace side 11 and second lace side 12 could be laced into distal opening 34 then out through first side opening 35 and second side opening 36, respectively, for example.

[0035] It will be understood that the particular number, shapes and arrangements of openings on second component 30 could be varied in other embodiments. For example, in some cases, second component 30 may comprise one, two, three, four or any other number of openings. Moreover, the shapes of each opening could vary in any manner, including, for example, any of the shapes described above for openings of first component 20. Still further, the spacing, orientation and/or general arrangement of openings on second component 30 could be varied in other embodiments.

[0036] In different embodiments, the geometry of first component 20 and/or second component 30 could vary. In some cases, first component 20 may have an approximately elongated shape. In some cases, first component 20 may further be symmetric in shape. However, in other embodiments, first component 20 could take on any other shapes including symmetric and asymmetric shapes. As seen for example in FIG. 9, in some embodiments second component 30 may be characterized as having a pouch-like shape, or a pouch-shaped portion. In the current embodiment, for example, second component 30 may bulge at proximal end 72. In some cases, this pouch-like configuration may create the necessary spacing for inserting portions of a lace through first side opening 35 and second side opening 36.

[0037] First component 20 and second component 30 may include provisions for releasably engaging one another in a manner that improves ease of use. In some embodiments, first component 20 and second component 30 may each be associated with complementary portions of a fastener. In some cases, for example, first component 20 may include a first fastener portion 21 (shown clearly in FIG. 2 as well as FIGS. 6-8) and second component 30 may include a second fastener portion 31 (shown in FIG. 2 as well as in FIGS. 11 and 13). In some cases, second fastener portion 31 may be a complementary portion to first

fastener portion 21. In one embodiment, first fastener portion 21 and second fastener portion 31 are corresponding sides or portions of a hook-and-loop type fastener, such as a Velcro® fastener. However, in other embodiments other kinds of fasteners could be used including, but not limited to: snaps, straps, buttons, buckles, zippers, magnetic fasteners, other kinds of mechanical fasteners as well as any other kinds of fasteners that can be removably attached.

[0038] For understanding the arrangements of various portions of first component 20 and/or second component 30, the top and bottom portions of both components are described here. In some cases, first component 20 includes a top portion 51 and a bottom portion 53 disposed opposite of top portion 51. In some cases, bottom portion 53 may generally face towards, or confront, shoe 10, while top portion 51 may face outwardly from shoe 10. In addition, second component 30 may include a top portion 55 and a bottom portion 57 disposed opposite of the top portion 55. In some cases, bottom portion 57 is a portion or side of second component 30 configured to confront first component 20 when the two components are engaged.

[0039] In some embodiments, first fastener portion 21 may be disposed on top portion 51 of first component 20. In particular, in some cases, first fastener portion 21 may be disposed in the approximate center of top portion 51. In some cases, first fastener portion 21 may be disposed between openings 23 and openings 24. Second fastener portion 31 may be disposed on bottom portion 57 of second component 30. With this arrangement, first fastener portion 21 and second fastener portion 31 may engage one another when bottom portion 57 of second component 30 is placed against top portion 51 of first fastener portion 21, thereby fastening first component 20 and second component 30.

[0040] In the example show in FIG. 2, and as also clearly seen in FIGS. 6-8, the use of two slots on either side of the first fastener portion 21 allows the first lace side 11 and second lace side 12 to be laced into first component 20 from underneath via, e.g., slot 231 and slot 241, respectively, then laced back down through slot 232 and slot 242, respectively. The lace sides can then be pulled

forward from behind first component 20 and laced through second component 30, as described below. As clearly seen in FIGS. 6-8, in one possible arrangement, first lace side 11 and second lace side 12 of lace 15 are first laced through the slots closest to first fastener portion 21 (i.e., slot 231 and slot 241). However, in other embodiments, other configurations or arrangements of lace 15 through these slots may be possible.

[0041] Referring now to FIGS. 1-3 and 6-11, first lace side 11 and second lace side 12 of lace 15 are laced through first component 20 and second component 30 as follows. In this exemplary embodiment, first lace side 11 is laced through slot 231 and slot 232 of first component 20 and second lace side 12 is laced through slot 241 and slot 242 of first component 20 (see FIGS. 6-8). The two lace sides are then brought around from underneath first component 20 and laced into second component 30 via distal opening 34 (see FIGS. 9-11). From distal opening 34, first lace side 11 and second lace side 12 are then laced out through first intermediate opening 75, back into second component 30 through second intermediate opening 76. In some embodiments, first lace side 11 may be laced out of second component 30 via first side opening 35 and second lace side 12 may be laced out of second component 30 via second side opening 36. However, in another embodiment, first lace side 11 could be laced out via second side opening 36 and second lace side 12 could be laced out via first side opening 35.

[0042] Referring now to FIGS. 1 and 3-5, in use, lace 15 would be laced through shoe 10 and out of top eyelets 19 of shoe 10. From top eyelets 19, lace 15 would be laced through first component 20 and second component 30 of lace-tying system 18 by a parent, caregiver or other assistant. As previously discussed, first lace side 11 of lace 15 and second lace side 12 of lace 15 may be laced through first component 20 and second component 30, leaving first lace end 13 and second lace end 14 extending out from second component 30. In moving from the initial configuration of lace-tying system 18 shown in FIG. 1 to the configuration shown in FIG. 3, first component 20 may be pushed down or

otherwise re-positioned towards top eyelets 19 of shoe 10. With this arrangement, after a foot is inserted into the shoe, first component 20 can be pushed down tightly against top eyelets 19 to close shoe 10 around the foot.

[0043] FIGS. 3 through 5 illustrate a sequence of associating second component 30 with first component 20 according to an embodiment. Referring to FIGS. 3 through 5, once first component 20 has been pushed against shoe 10 in order to tighten lace 15, second component 30 may be placed in alignment with first component 20. As seen particularly in FIGS. 4 and 5, as second component 30 is lowered towards first component 20, first lace side 11 and second lace side 12 may start to arrange themselves in bow-like loops in the region of lace 15 between second component 30 and first component 20. These loops may be formed because of the excess lace material in first lace side 11 and second lace side 12 between first component 20 and second component 30. Once first component 20 and second component 30 have been fastened together, as seen in FIG. 5, lace-tying system 18 may sit comfortably and attractively on top of shoe 10, displaying bows formed from first lace side 11 and second lace side 12, respectively of lace 15. Further, first lace tip 16 and the second lace tip 17 may dangle conventionally on either side of shoe 10.

[0044] In some embodiments, lace 15 is a conventional shoe lace, having, for example, first conventional tip 16 and second conventional tip 17 at the ends of first lace side 11 and second lace side 12, respectively. However, in other embodiments, any other kind of lace could be used, including, but not limited to: strings, wires, cables, rounded laces, flattened laces, as well as any other kinds of laces known in the art for use with various types of footwear.

[0045] FIGS. 6, 7 and 8 are a perspective top view of an exemplary embodiment of first component 20, a front view of the embodiment of FIG. 6 and a top view of the embodiment of FIG. 6, respectively. These figures show a first side of a hook-and-loop fastener 21 on the top surface of first component 20, and the first lace side 11 of lace 15 and the second lace side 12 of lace 15 threaded through openings 23 (*i.e.*, in these figures, slot 231 and slot 232) and openings 24

(*i.e.*, in these figures, slot 241 and slot 242) in first component 20 from beneath. The use of openings 23 and openings 24 on first component 20 allows lace 15 to be laced in and out of first component 20 from underneath, such that when first component 20 is pushed down to the top of shoe 10, first component 20 will stay firmly in place. Additionally, in some cases, the lace sides could also be laced through loops attached to the back of the first component (not shown).

[0046] Because the lace sides shown in FIGS. 6-8 are laced from beneath first component 20 and then back down through component 20 to emerge on either side of component 20, component 20 generally takes on an arcuate shape in use, as shown in FIGS. 6-8. In the embodiments shown in the figures, second component 20 is rectangular, but any generally elongated (possibly, but not necessarily, symmetrical or somewhat symmetrical) shape could be used, with one side of a mechanical fastener in the center, and openings on either side.

[0047] FIG. 9 is a perspective view of a first exemplary embodiment of second component 30, showing first lace side 11 and second lace side 12, respectively, of lace 15 laced into a distal opening 34 at the distal end 71 of second component 30 and then out of first side opening 35 and second side opening 36 on either side of proximal end 72 of second component 30. FIGS. 10 and 11 are top and bottom views of the second component 30, respectively. In the exemplary embodiment of FIGS. 9-11, the second component 30 has a second fastener portion 31 of a hook-and-loop fastener on its bottom surface. The first fastener portion 21 and second fastener portion 31 of the hook-and-loop fastener attached to the first component 20 and second component 30, respectively, are complementary, *i.e.*, the two components can be attached to each other by pressing the two sides of the hook-and-loop fasteners together.

[0048] FIGS. 12 and 13 are a perspective top view and a bottom view, respectively, of a second exemplary embodiment of the second component. In this embodiment, lace side 11 and lace side 12 are inserted beneath one portion 31 of the mechanical faster, before being laced into second component 30 and then exiting via opening 35 and opening 36. Alternatively, the lace sides may be

inserted between the mechanical faster portion 31 and the fabric or leather of the second component 30, and then pulled out on either side of second component 30, without actually entering the fabric or the leather part (not shown). In additional embodiments, for example, the second component could have an open side at its distal end 71, and openings on side 77 and side 78, towards or at the proximal end 72. Also, as in the embodiment shown in FIG. 14, second component 30 may have a single opening 37 at the proximal end 72, through which both first lace side 11 and second lace side 12 of lace 15 may pass. In an alternative version of this embodiment, second component 30 may have two openings at its proximal end 72 instead of a single opening. Other embodiments could also be implemented, based upon, for example, the specific footwear or other article the tying system may be intended for, ease-of-use, manufacturing, cost or other considerations.

[0049] The lace-tying system can be removed at any time, leaving behind a conventional shoe with conventional laces. The lace-tying system could then be used on other shoes. In certain embodiments, the lace-tying system may be washed or cleaned using appropriate cleaning fluids.

[0050] In different embodiments, the materials comprising components of a lace-tying system could vary. In some embodiments, component 20 and component 30 may be made of a relatively soft and flexible material such as leather or fabric. Such materials can be comfortable to wear, can be designed to have an attractive appearance, and are soft to the touch as the wearer pushes the first component down to tighten the lace-tying system or pushes it up to loosen the lace-tying system. However, in other embodiments, any other materials could be used for components of a lace-tying system including, but not limited to: polymer materials, woven materials, non-woven materials, metallic and/or metal alloy materials as well as possibly other materials. The types of materials used can be selected according to various factors including, for example, manufacturing costs, comfort, durability, appearance as well as possibly other factors.

[0051] While various embodiments have been described above, the description is intended to be exemplary, rather than limiting. It will be apparent to

those of ordinary skill in the art that additional embodiments and implementations are possible. Accordingly, the embodiments are not to be restricted except in light of the attached claims and their equivalents.

What is claimed is:

1. A lace-tying system comprising:
 - a first component having a top side and a bottom side, comprising at least one opening through which two sides of a lace may be laced from the bottom side of the first component;
 - said first component also comprising a first fastener portion of a fastener on the top side of the first component;
 - a second component comprising at least one first opening at one end through which the two sides of the lace may be laced, and two additional openings that are spaced apart from the first opening and are spaced apart from each other;
 - said second component also comprising a second fastener portion of the fastener on a bottom side of the second component;
 - wherein the first fastener portion and the second fastener portion of the fastener are complementary to each other such that the first component is configured to be removably attached to the second component, and
 - wherein the first component and second component are configured such that when the lace-tying system is in use the two sides of the lace can be laced through the first component and then through the second component, wherein the first component can be pushed down to tighten the lace on an article of footwear, and wherein the second component can be attached to the first component by attaching the second fastener portion to the first fastener portion.
2. The lace-tying system of claim 1, wherein the first component and the second component are made from a relatively soft and flexible material.
3. The lace-tying system of claim 1, wherein the fastener is one of a hook-and-loop fastener and a snap fastener.

4. The lace-tying system of claim 1, wherein the first component is a symmetrical elongated material having the first fastener portion of the fastener disposed in the center of the top side of the first component, and wherein the at least one opening comprises one or more slots on either side of the first fastener portion of the fastener.
5. The lace-tying system of claim 4, wherein the first component comprises two slots on either side of the first fastener portion of the mechanical fastener.
6. A lace-tying system comprising:
a first component having a top side and a bottom side;
said first component having a first fastener portion of a fastener disposed on the top side of the first component, and one or more openings on either side of the first fastener portion through which a first lace side and a second lace side can be slidably laced from the bottom side of the first component;
a second component having a first opening that is sufficiently large to slidably accommodate both the first lace side and the second lace side and having a second fastener portion of the fastener affixed to a bottom side of the second component, said second component having a first additional opening and a second additional opening, said first additional opening and said second additional opening being spaced apart from the first opening and from each other,
wherein the first additional opening is dimensioned such that one of the first lace side and the second lace side can be laced through the first additional opening, and the second additional opening is dimensioned such that one of the second lace side and the first lace side can be laced through the second additional opening, and
wherein the second fastener portion is complementary to the first fastener portion such that the second component can be removably attached to the first component by attaching the second fastener portion to the first fastener portion.

7. The lace-tying system of claim 6, wherein the first opening is an open end of the second component, and wherein the first lace side and the second lace side of the lace can be laced into the open end of the second component and then out of the first additional opening and the second additional opening.
8. The lace-tying system of claim 6, configured such that when a lace is laced through the first component and the second component and the second component is attached to the first component, the first lace side of the lace and the second lace side of the lace form loops of lace on either side of the article of footwear.
9. The lace-tying system of claim 6, wherein the first component and the second component are made from one of leather and fabric.
10. The lace-tying system of claim 6, wherein the second component is in the form of a pouch, and wherein the first opening is an open end of the pouch.

11. An article of footwear comprising:
- a lace laced through eyelets in the article of footwear, leaving a first lace side of the lace and a second lace side of the lace extending from the article of footwear,
 - said first lace side of the lace and said second lace side of the lace being laced through a first component and a second component,
 - wherein the first component comprises a first fastener portion of a fastener on a top side of the first component, and the second component comprises a second fastener portion of the fastener on a bottom side of the second component such that the second component may be removably attached to the first component by attaching the second fastener portion to the first fastener portion,
 - wherein the first lace side of the lace and the second lace side of the lace are laced through the first component from beneath the first component,
 - wherein the first lace side of the lace and the second lace side of the lace are then laced into the second component through a first opening at a distal end of the second component and out of the second component through a second opening and a third opening at a proximal end of the second component, wherein the second opening and the third opening are spaced apart from each other and from the first opening, and
 - wherein the first component and the second component are made from a relatively soft and flexible material.
12. The article of footwear of claim 11, wherein the fastener is one of a hook-and-loop fastener and a snap fastener.
13. The article of footwear of claim 11, wherein the second component is attached to the first component, forming a double bow out of the first side and the second side of the lace.

14. The article of footwear of claim 11, wherein the first component is a symmetrical elongated material having the first fastener portion at the center of the top side of the first component, and the first component further comprising two openings on either side of the first fastener portion.

15. The article of footwear of claim 11, wherein the second component is in the form of a pouch, and wherein the first opening is an open end of the pouch, and the second opening and the third opening are at an opposite end of the pouch.

16. An article of footwear comprising:

a lace laced through eyelets in the article of footwear, leaving a first lace side of the lace and a second lace side of the lace extending from the article of footwear;

a first component having a first fastener portion of a fastener affixed at the center of a top side of the first component, and at least one first opening disposed adjacent a first side of the first fastener portion and at least one second opening adjacent a second side of the first fastener portion;

a second component having a first opening at a distal end, and a second opening and a third opening spaced apart from each other and from the first opening;

a second fastener portion of the fastener affixed to the second component, wherein the first lace side of the lace is laced through the at least one first opening on the first side of the first fastener portion and the second lace side of the lace is laced through the at least one second opening on the second side of the first fastener portion,

wherein the first lace side of the lace is further laced through the first opening of the second component and out of one of the second opening and third opening of the second component, and the second lace side of the lace is laced through the first opening of the second component and out of the other one of the third opening and second opening of the second component, and

wherein the first component can be pushed down to the top of the article of footwear to close the article of footwear around the wearer's foot, and wherein the second component can then be removably attached to the first component by attaching the second fastener portion to the first fastener portion, such that the first lace side of the lace and the second lace side of the lace each form a bow on either side of the article of footwear.

17. The article of footwear of claim 16, wherein the first component and the second component are made from a relatively soft and flexible material.

18. The article of footwear of claim 16, wherein the fastener is one of a hook-and-loop fastener and a snap fastener.

19. The article of footwear of claim 16, wherein the at least one opening on the first side of the first fastener portion comprises two openings, and the at least one opening on the second side of the first fastener portion also comprises two openings,

wherein the first lace side of the lace is laced into and through one of the two openings on the first side of the first component from beneath the first component and then down into and through the other of the two openings on the first side of the first component, and wherein the second lace side of the lace is laced into and through one of the two openings on the second side of the first component from beneath the first component and then down into and through the other of the two openings on the second side of the first component.

20. The article of footwear of claim 16, wherein the first opening of the second component is an open end at the distal end of the second component and the second opening of the second component and the third opening of the second component are at a proximal end of the second component.

21. The article of footwear of claim 20, wherein the second opening is at the first side of the second component and the third opening is at the second side of the second component.

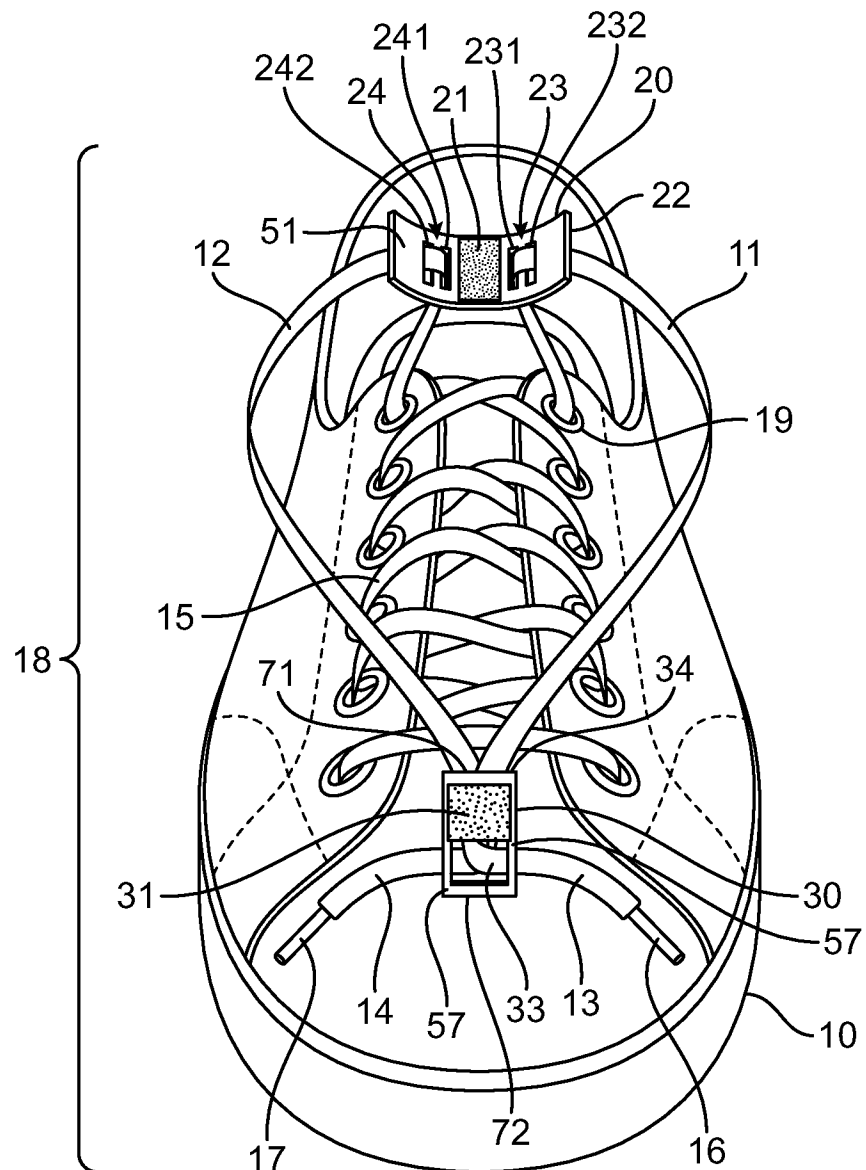
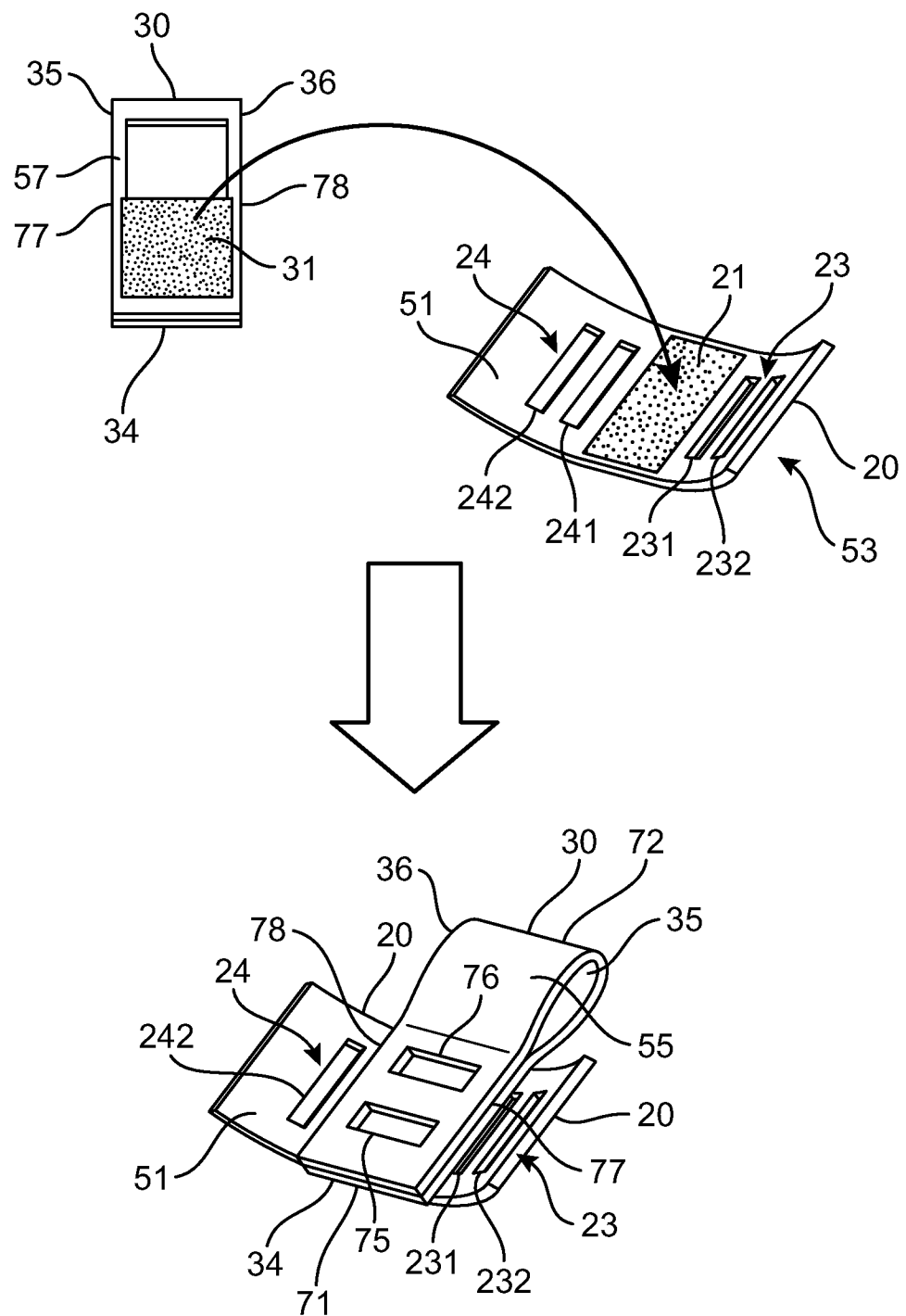


FIG. 1

**FIG. 2**

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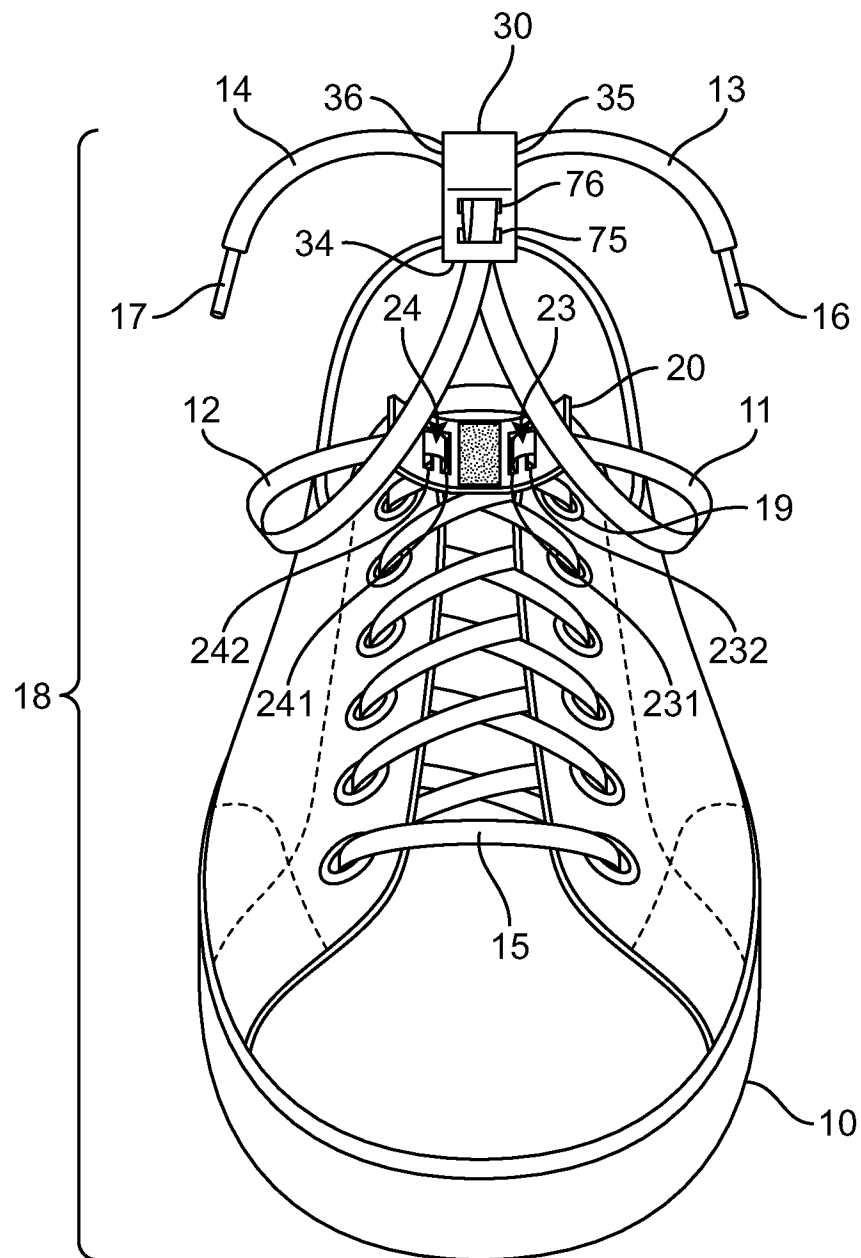


FIG. 3

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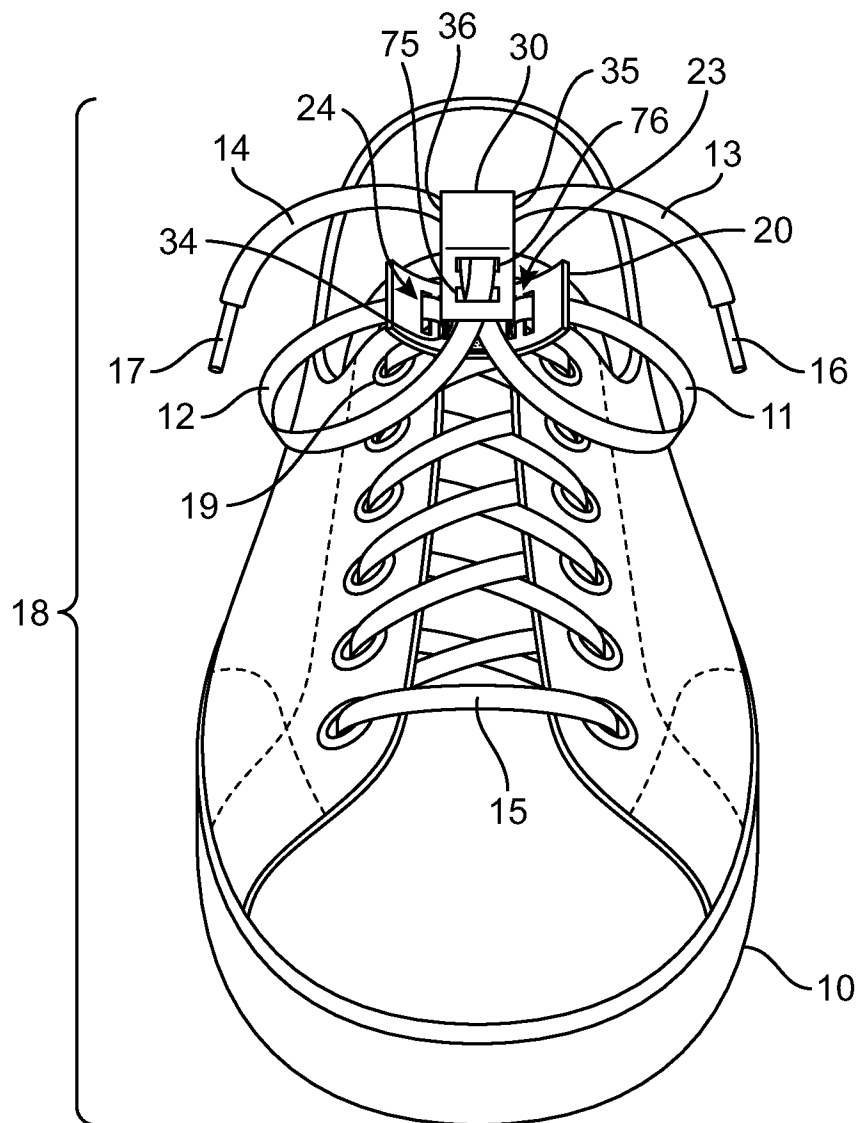


FIG. 4

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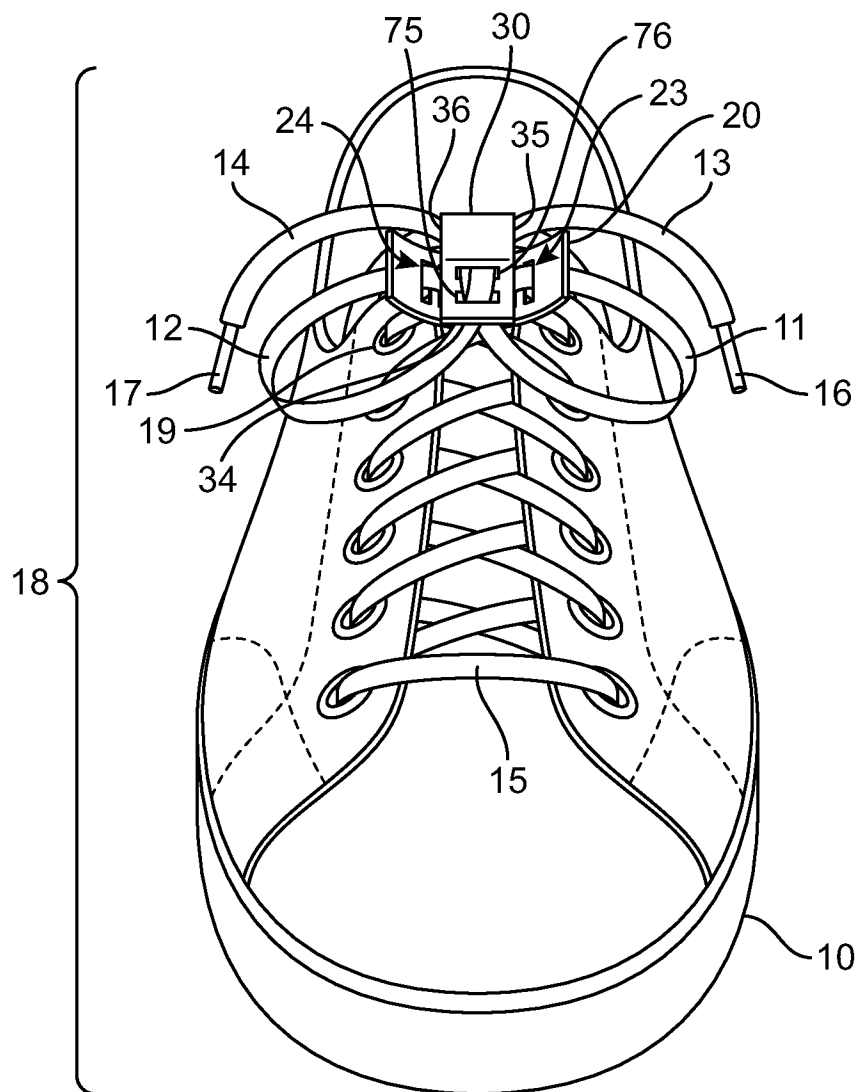


FIG. 5

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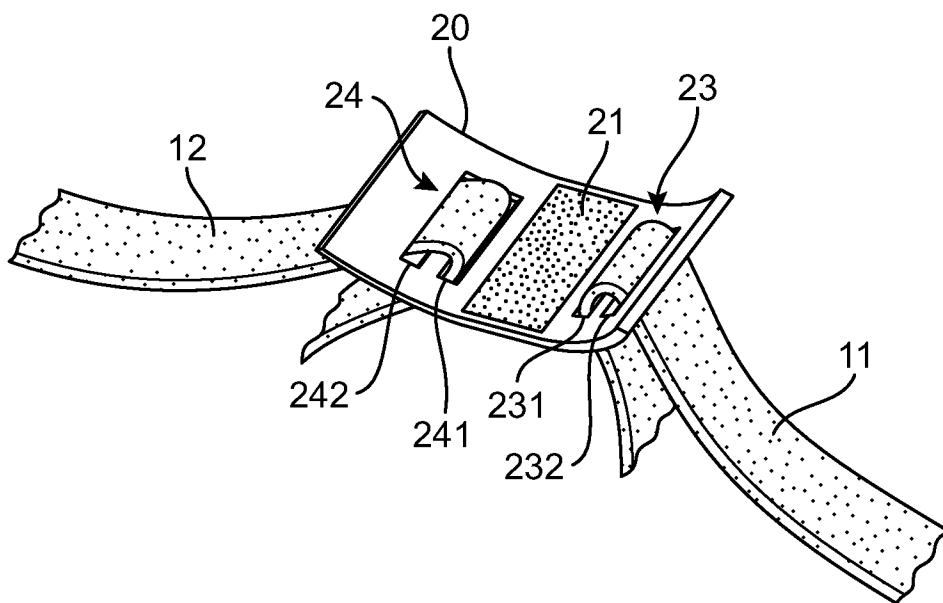


FIG. 6

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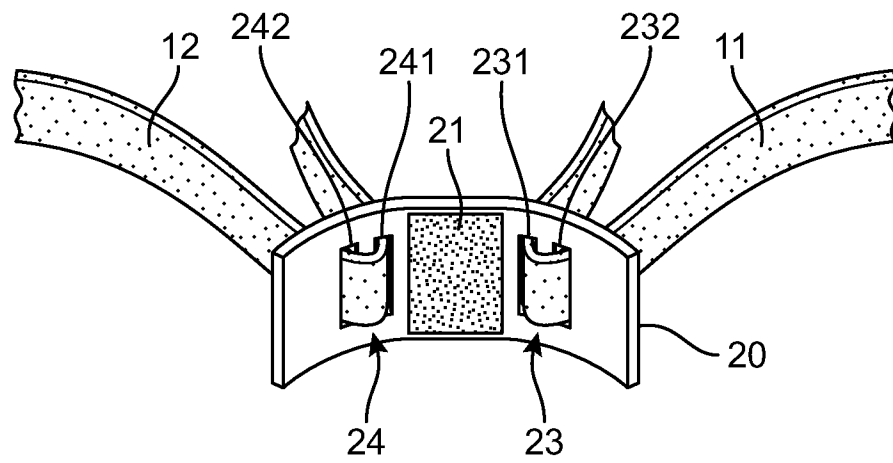


FIG. 7

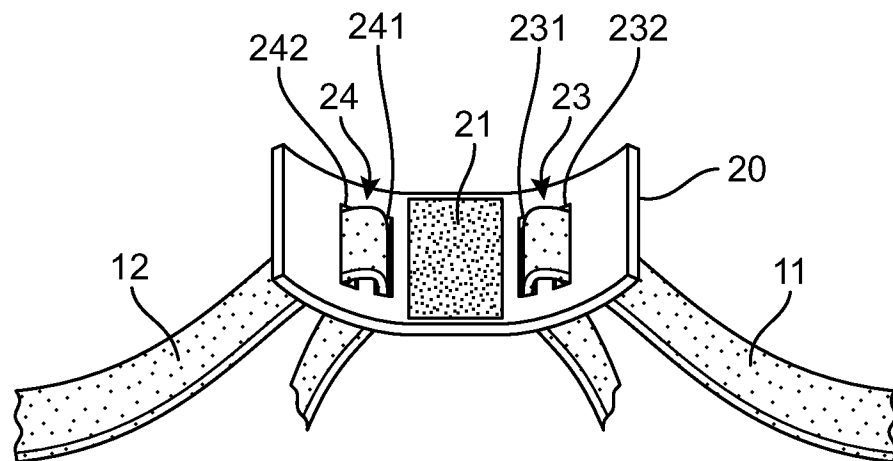


FIG. 8

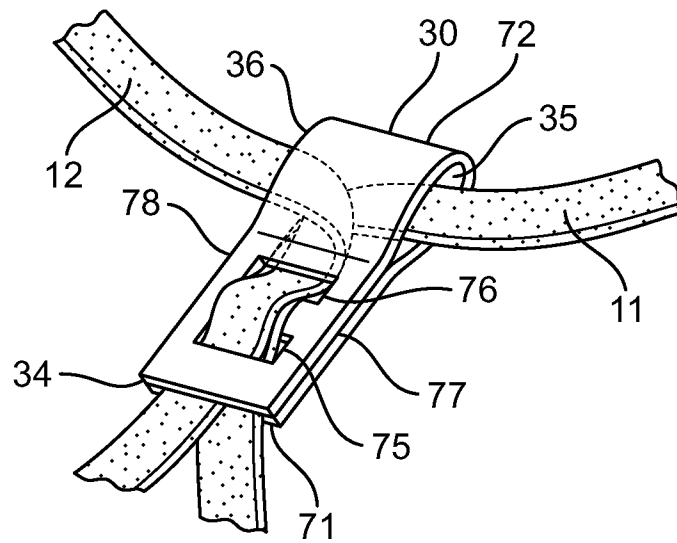


FIG. 9

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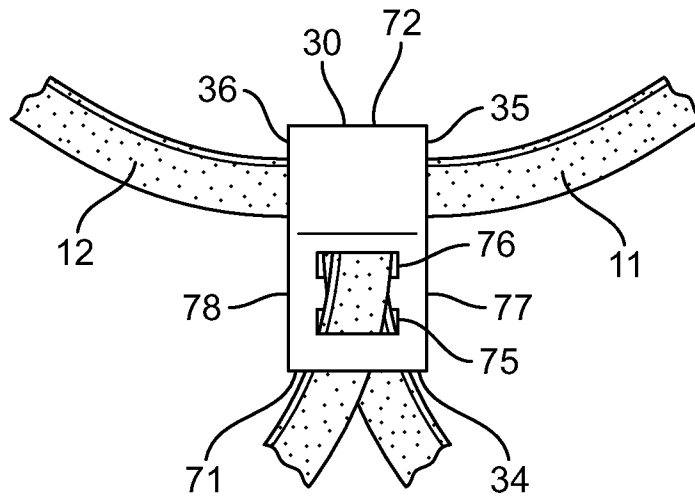


FIG. 10

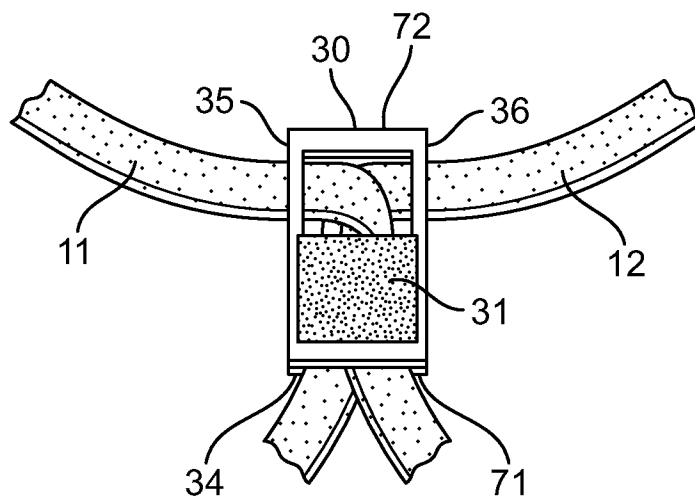


FIG. 11

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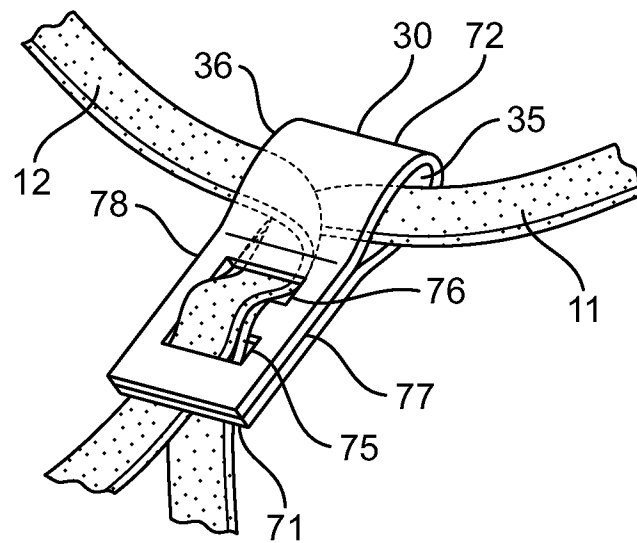


FIG. 12

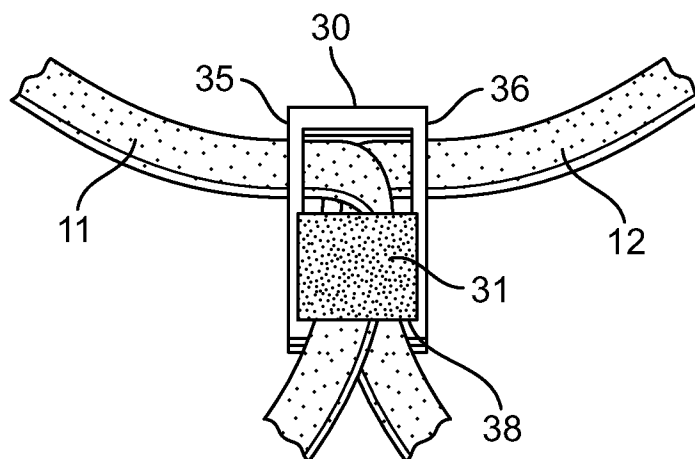


FIG. 13

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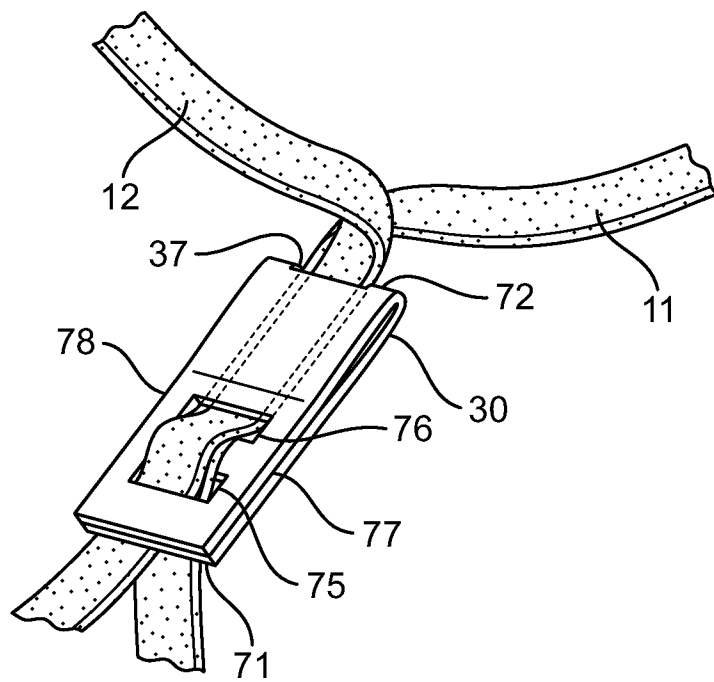


FIG. 14

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2013/069967

A. CLASSIFICATION OF SUBJECT MATTER INV. A43B1/00 A43C7/00 A43C7/08 A43C11/14 ADD.		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) A43B A43C		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPO-Internal		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 790 048 A (ARNT SHARON M [US]) 13 December 1988 (1988-12-13)	1-5,11, 12,14,15
Y	column 2, lines 40-47,59-64; figures 1-8 -----	13
Y	WO 98/47401 A1 (CHEN CHUNG CHIN [US]; CHANG CHUN HSIUNG) 29 October 1998 (1998-10-29)	13
A	figures 1,2,24,27,28 -----	14
X	WO 2004/095968 A1 (KIM HYUN-SOO [KR]) 11 November 2004 (2004-11-11) page 5, lines 8-12; figures 1-6 page 6, lines 1-12 -----	1-5,11, 12,14,15
A	US 2005/167986 A1 (BURNS JAMES R [US] ET AL BURNS JAMES [US] ET AL) 4 August 2005 (2005-08-04) figures 1-5 -----	1-3,12
-/-		
☒ Further documents are listed in the continuation of Box C. ☒ See patent family annex.		
* Special categories of cited documents : "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search	Date of mailing of the international search report	
4 March 2014	12/03/2014	
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Duquénoy, Alain	

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2013/069967

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 1 457 313 A (DELARBRE C A) 1 December 1976 (1976-12-01) page 1, lines 81-83; figures 1,5,7 page 2, lines 21-23,33,79-81 -----	1,2,11, 13
A	US 4 428 101 A (HARKAVY DIANNE [US]) 31 January 1984 (1984-01-31) figures 1-4 -----	15
A	WO 2008/041874 A1 (DIAZ JOSE OWEN R [PH]) 10 April 2008 (2008-04-10) figures 3-5 -----	3,12,13
A	US 4 884 321 A (HOLUB ELVIN G [US]) 5 December 1989 (1989-12-05) figures 1,2 -----	13,14

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/069967

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 6-10, 16-21
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 6-10, 16-21

Reasoned statement with regard to incomplete search

1 In view of the (large) number of independent claim (4 independent claims) and also the wording of the claims presently on file, which render it difficult, if not impossible, to determine the matter for which protection is sought, the present application fails to comply with the clarity and conciseness requirements of Article 6 PCT (see also Rule 6.1(a) PCT) to such an extent that a meaningful search is impossible.

2 In the present case and prima facie, the claimed subject-matters are so numerous and different that they simply preclude the detailed analysis necessary to come to a firm conclusion regarding to the essential technical features of the invention and also the unity of the present application.

3 At least some of the independent claims differ from independent claim 1, in that they are drafted by means of removing features and/or adding features , thus lacking conciseness and clarity about the subject-matter to be searched.

4 Consequently, the search has been carried out for those parts of the application which do appear to be clear (and concise), namely independent claims 1,11 (product claim), and dependent claims 2-5,12-15.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guidelines C-IV, 7.2), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2013/069967

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4790048	A	13-12-1988	NONE
WO 9847401	A1	29-10-1998	AU 5797698 A 13-11-1998 MY 129481 A 30-04-2007 WO 9847401 A1 29-10-1998
WO 2004095968	A1	11-11-2004	AU 2003237040 A1 23-11-2004 KR 200320870 Y1 23-07-2003 US 2006080814 A1 20-04-2006 WO 2004095968 A1 11-11-2004
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