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(71) Applicant *(for all designated States except US)*: **FLIP-LOCKER B.V.** [NL/NL]; Karel Doormanlaan 1, NL-2111 XC Aerdenhout (NL).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **VEHMEIJER, Stephan Bernard Willem** [NL/NL]; Karel Doormanlaan 1, NL-2111 XC Aerdenhout (NL). **VAN DER VECHT, Arnaud Carel Hendrik** [NL/NL]; Zandvoortselaan 188, NL-2106 AP Heemstede (NL).

(74) Agent: **JANSEN, C.M.**; Johan de Wittlaan 7, NL-2517 JR Den Haag (NL).

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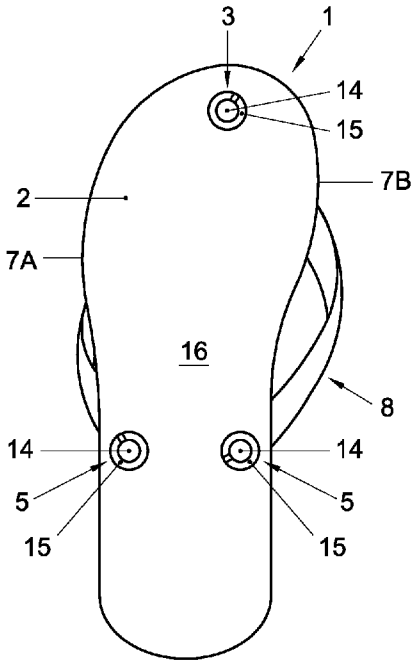

Fig. 1B

(57) Abstract: Sandal, comprising a sole and at least one strip comprising at least two ends for fitting over a part of a wearers foot. At least one end has an end portion fitting through an opening in the sole, the strip extending substantially above the sole. A coupling element is provided fitted around and/or into at least part of said end portion, which coupling element prevents the end portion from being pulled through the opening in the direction of the top side and can be removed and/or collapsed for passing the end portion through the opening and/or wherein the end portion is dimensioned such that in a first position the end portion can pass through the opening from the top side to the bottom side and in a second position cannot pass through said opening.

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SANDAL, SET OF A SANDAL AND STRIPS AND METHOD FOR FORMING A SANDAL

The invention relates to a sandal. The invention further relates to a set of a sandal and sandal strips as well as to methods for forming a sandal.

Sandals, generally also known as thong sandals, are known to comprise a sole and at least one strip, also known strap, forming part of a thong. A thong can for example comprise one or more strips, such as a bifurcated strap, fixed to the sole in a fixed position by their ends. Each end is thereto provided with an enlarged end, which can be forced from a top side of the sole through an opening in the sole, such that the enlarged head is introduced into an indentation in the sole's bottom side. The enlarged head has a size suitable to prevent the head and thus the end of the strip from being retracted easily, back to the top side of the sole.

AU53404 discloses a thong sandal in which the sole is provided with at least two layers. The top layer is provided with the openings through which the enlarged heads of the thong are inserted. At least one further layer is adhered against the bottom side of the top layer, enclosing the enlarged heads and preventing them from wear.

EP0867130 discloses a sandal having a sole and a strap extending across a front end of the sole. The strap has two opposite ends, each end provided with a rigid strip extending in an indentation at the top of the sole. Each of these strips is provided with two integral, enlarged heads forced through corresponding openings, to be fitted in indentations in the bottom of the sole.

Each of these prior art sandals have enlarged heads for fixing the strip or strips to the sole, by forcing the enlarged heads through the openings. This is cumbersome and may not lead to a secure mounting of the or each strip to the sole. Moreover, release of the strip or strips is also difficult, if not impossible.

An object of the present invention is to provide an alternative sandal. Another object is to provide an alternative method for forming sandals. A still other object of the invention is to provide an easy method of forming sandals. Moreover an object is to provide a set of a sandal and at least one strip. At least one of these objects can be fulfilled according to the disclosure.

In a first aspect the description discloses a sandal, comprising a sole and at least one strip for fitting over a part of a wearer's foot, said at least one strip comprising at least two ends. The or each strip can form or be part of a thong or band. At least one end of the at least one strip comprises an end portion fitting through an opening in the sole and preferably into an indentation in the sole, the strip extending substantially at a top side of the sole. In embodiments of a sandal a coupling element is provided fitted around and/or into at least part of said end portion, which coupling element prevents the end portion from being pulled through the opening in the direction of the top side and can be removed and/or collapsed for passing the end portion through the opening. In the same or other embodiments the end portion is dimensioned such that in a first position the end portion can pass through the opening from the top side to the bottom side and in a second position cannot pass through said opening.

In a second aspect the description discloses a set of a sandal, especially according to the description and at least one strip, one or more ends of the at least one strip provided with an end portion insertable through an opening in a sole of the sandal, and a coupling element for fitting on and/or in the end portion for preventing the end portion from being removed from the opening, a coupling between the end portion and the coupling element being reversible. This provides for an easy method of manufacturing and for an easy exchange of the or each strip, such as a thong, for another one or more strips or thong, for example for replacement of a worn strip or for exchange for a different type of strip or thong, for example a different size, different colour, different design or the like. Alternatively or additionally the end portion is

dimensioned such that in a first position the end portion can pass through the opening from the top side to the bottom side and in a second position cannot pass through said opening.

In a third aspect the description discloses a method for forming a sandal. At least one end portion of a strip can be inserted into and/or through an opening in a sole of the sandal. A coupling element can then be connected to the end portion reversibly.

In a fourth aspect the description discloses a method for forming a sandal. At least one end portion of a strip is inserted into and through an opening in the sole of the sandal, where after the end portion is tilted and/or rotated at least partly into a positioning in which it is prevented from being retracted through the opening.

Embodiments of the present invention shall be described, with reference to the drawings, for elucidation of the invention. These embodiments should by no means be understood as limiting the scope of the invention in any way or form. In these drawings:

Fig. 1A and 1B schematically show in top view and bottom view respectively a sandal in a first embodiment;

Fig. 2 schematically shows in partial cross section a sandal of fig. 1A and B, and a bottom side view thereof, showing an end portion and coupling element, in coupled condition;

Fig. 3A - C schematically show steps of assembling a sandal according to fig. 1 and 2, in cross sectional and bottom view;

Fig. 4 schematically shows a set of a sandal and a series of different strips or thongs for use with or forming the sandal;

Fig. 5A - D schematically show steps of assembling a first alternative embodiment of a sandal, in cross sectional and bottom view;

Fig. 5E - H schematically show steps of assembling a second alternative embodiment of a sandal, and part of a sandal in top view (fig. 5H)

Fig. 6A - C schematically show steps of assembling a third alternative embodiment of a sandal, in cross sectional and bottom view; and

Fig. 7A - C schematically show an end portion and coupling element of a further alternative embodiment, in separated and assembled condition.

In this description and the drawings the same or similar elements have the same or similar reference signs. In this description the invention shall specifically be described with reference to a thong sandal type of sandal. In this description sandal should be understood as at least meaning but not limited to an open type of outdoor footwear, consisting of or at least comprising a sole held to a wearer's foot by straps or thongs passing over an instep. Sandals can be provided with or without a strap around the ankle. A sandal can for example be a flip-flop, having a strap or thong part extending between two or more toes. Flip-flops or thong sandals normally do not enclose the ankle of a wearer's foot. Thong sandals or flip flops are also known by other names, such as but not limited to zories, slip slaps, thongs, pluggers, toesies, jandals or slippers. Such sandals as flip flops or thong sandals are generally held loosely on the foot by a Y-shaped strap, like a thin thong, that passes between the first (big) and second toes and around either side of the foot.

In this description a sole is to be understood as a part of a sandal on which a wearer's foot will rest. A sole can be made of a mono material or of composite material, such as for example plastic and/or rubber. A sole can also be made at least partly of wood. A strip or strap can be understood as at least meaning but not necessarily limited to a elongated, flexible piece of material, for example but not limited to a piece made of one or more of plastic, cloth, leather, rubber or other suitable materials. A strip can have any suitable cross section, such as but not limited to, flat, elongated, circular, oval, square or rectangular, curved or straight and other suitable forms. A cross section of a strip may vary over its length between the ends 12, 13. A thong can be formed from one or more strips or straps, and can for example be but is not limited to

Y or H shaped. A strip can also be for example band shaped, such as for example disclosed in EP0867130.

In this description an end part or end portion of a strip can be an integral part of a strip, which can for example be a strap or a thong, or can be a part that is fixed to such strip, which can for example be a strap or thong.

In this description by way of example a number of embodiments of sandals is shown. In sandals according to this description combinations can be made of all parts, including but not limited to parts as described here above.

Fig. 1A and 1B show a sandal 1 in top and bottom view respectively. The sandal 1 comprises a sole 2, for example made of plastic or rubber and provided with a first opening 3 near a toe portion 4 of the sole 2 and two second openings 5 in a midsection 6 of the sole, near opposite sides 7A, B thereof. In the embodiment of fig. 1 a Y-shaped thong 8 is provided, extending substantially above a top side 9 of the sole. The thong 8 can be made integrally, for example by injection moulding, or can be assembled from different parts, and comprises a first strip 10 and two second strips 11. Each strip has a first, free end 12A, B and a second end 13A, B. The first strip 10 and the second strips 11 are joined with their second ends 13A, B, C to each other or, as indicated, integrally formed, as shown in fig. 1A. At least one and in the embodiment shown each first end 12A, B, C is provided with an end portion 14 that can be fitted into and through an opening 3, 5 respectively. For the or each end portion a coupling element 15 is provided that can be positioned around at least part of the respective end portion 14 after the end portion 14 has been inserted in an insertion direction P through the relevant opening 3, 5 from the top side 9 of the sole to a position at least partly passed a bottom side 16 thereof. The coupling element 15 engages the end portion 14 such that it prevents the end portion 14 from being retracted in a direction opposite to the insertion direction P.

A coupling element 15 according to the present invention is preferably mounted reversibly on the end portion 14, such that it can be

removed and replaced several times, without damage to either one of the coupling element 15 and the end portion 15, or to the sole 2.

In general terms a coupling element 15 and end portion 14 of a strip 10, 11 can be provided with cooperating coupling provisions, such as form engaging or form locking profiling, but can also be provided with other coupling means, such as but not limited to Velcro® type material. The end portion 14 is preferably dimensioned such that it can be inserted into and through an opening 3, 5 relatively easy, whereas the coupling element 15 is preferably dimensioned such that once provided at said end portion, the end portion is prevented for being retracted from the opening, or such that at least such retracting is at least far more difficult than when no coupling element is provided or such is removed.

In fig. 2 an embodiment of an end portion 14 and coupling element 15 is shown, in coupled condition, in a sole 2 and partly in cross section. In this embodiment the sole comprises three layers, of which for example a top layer 17 provides for the top surface 9 and the bottom layer 18 for the bottom side 16 of the sole 2. The middle layer 19 may be made of a material different from that of the top and/or bottom layer 17, 18, for example a softer material. More or less layers could be provided, such as only one layer or multiple middle layers 19. The opening 3, 5 extends from the top surface 9 through the sole 2 in the direction of the bottom side 16. It can have the same cross section over its full length L measured between the top and bottom sides 9, 16. In the embodiment shown an indentation 20 is provided in the bottom side 16, into which the opening 3, 5 opens. The opening 3, 5 is shown as having a substantially circular cross section perpendicular to the length direction measured along the axis A of the opening 3, 5. The opening can have a substantially circular cross section with a substantially constant diameter D1. The indentation 20 can equally be substantially cylindrical, having a length axis collinear with the axis A and a substantially circular cross section

perpendicular to the axis, which can have a diameter D2, larger than D1, and a length H1 measure along the axis A.

The end portion 14 can have a rod like configuration and can for example be substantially cylindrical, having a length along the axis A which can be similar to the thickness of the sole 2, measured along said axis A. At an upper end 21 of the end portion 14 the further strip 10, 11 is connected or provided, whereas the opposite lower end as shown in the drawing, is a free end 22. The end portion can have a cross section which can for example be substantially circular with a diameter D3 which may be about equal to or smaller than the cross section of the opening 3, 5. At or close to said free end 22 a head portion 23 is provided, having a cross section which extends at least partly outside the peripheral surface 24 of a portion 25 of the end portion 14 directly adjacent said head portion 23. In this embodiment the head portion may also be substantially cylindrical, having a diameter D4. The diameter D4 may for example be substantially similar to or smaller than the diameter D1 of the opening 3, 5 between the indentation 20 and the top surface 9. At the opposite side of said peripheral portion 24 a second element 26 such as a flange may be provided, for example a peripheral flange 26 with a small height measured along the axis A and a diameter substantially similar to or smaller than that of the opening 3, 5. In such embodiment between the head portion 23 and the flange 26 a distance Hp may be provided. Preferably cross sections of the end portion as meant here can be understood in this context as maximum cross sections of the relevant parts.

The dimensions of the opening 3, 5 and the end portion 14, especially the head portion 23 and the flange 26, if present, are preferably chosen such that the end portion 14 can be pushed through the opening 3, 5 and to some extend through the indentation 20, with little to no friction or deformation. This enables repeated insertion and retraction, without excessive wear to the end portion 14 and/or the sole 2. A coupling element 15 can be a substantially ring shaped element, having a diameter D5 similar to the inner

diameter D2 of the indentation 20. The coupling element 15 can have a height Hc similar to or for example slightly less than the height H of the indentation 20. The coupling element 15 can be provided with a central bore or opening 27, having a first portion 28 with a cross section D6, for example similar to that of the portion 24 of the end portion 14, whereas a second portion 29 can have a larger cross section D7, for example similar to that of the head portion 23. A slit 30 is provided, extending from the periphery of the coupling element into the opening or bore 27, such that the coupling element can be opened. In the configuration of fig. 2 the head portion 23 extends in and fills the wider portion 29 of the opening or bore 27 in the coupling element 15, the smaller portion 28 fitting around the peripheral surface 24 adjacent to the head portion 23. The coupling element 15 is fitted inside the indentation 20, preferably pressed snugly, such that the end portion 14 is locked by the coupling element 15.

Along an outer periphery 31 of the coupling element 15 at least one and preferably a series of friction enhancing elements 32 can be provided. In the embodiment shown these elements 32 are substantially spherical elements, which can increase the friction between the coupling element 15 and the inner surface of the indentation 20. Preferably the coupling element 15 is press fit in the indentation such that the opening is squeezed tight around the end portion.

In fig. 3 A - C in three steps schematically the attachment of a strip 10, 11, such as a strip, strap or thong to a sole 2 is shown, in partial cross section and bottom view. In fig. 3A the end portion 14 is held above an opening 3, 5 of a sole, above the top surface 9, whereas a corresponding coupling element 15 is shown below the bottom side 16. The ring shaped element 15 is shown with the slit 30 almost closed. The end portion 14 is inserted into and partly through the opening 3 or 5 in the direction P, for example to a position as shown in fig. 3B, wherein the free end 22 extends beyond the bottom surface 16. The coupling element 15 is opened, as shown in fig. 3B, such that the slit 30 can be moved over the end portion 14, in the direction C. Once the coupling

element 15 is properly mounted on the end portion 14, the end portion 14 can be retracted slightly, in a direction opposite to the insertion direction P, pulling and/or pushing the coupling element 15 into the indentation 20, to a position as shown in fig. 3C. For removal of the strip 10, 11, the end portion 14 is made to move back into a position similar to that as shown in fig. 3B, such that the coupling element 15 can be removed again, after which the end portion 14 can be pulled out of the sole 2 and can for example be replaced for another strip 10, 11 or such element.

Fig. 4 shows a set 33 of at the left hand side a sandal 1, such as a thong sandal or flip flop, for example according to one of the embodiments discussed and/or disclosed herein. The sandal 1 comprises a sole 2 and a thong 8 or strips 10, 11. The set 33 further comprises other strips 10, 11 and/or thongs 8 and/or other strips or the like for holding the sole to a wearer's foot. In fig. 4 in the middle area three such other strips 10, 11 or thongs 8 are shown, having end portions 14 fitting in the openings 3, 5 of the sandal 1, which end portions 14 are provided for cooperation with coupling elements 15 as described. In other embodiments other means for fixing the strips or thongs, to the sole 2 can be provided, for example as discussed hereafter with respect to fig. 5 - 7. In fig. 4 at the right hand side two further alternative thongs 8 or strips 10, 11 are shown, provided with end portions 14 according to this invention. The top one has four such end portions 14, which can be fitted in the two openings 5 in the mid section 6 and in two openings 3A that can be provided for that purpose at the toe region 4. At the lower right hand side a strip or band is shown, having end portions 14 as described.

The thongs, strips and/or or straps in a set can be identical but preferably are different in for example materials used, size, design, colour, hardness, flexibility, decoration or the like. Since the end portions can be removed easily, without substantive damage to end portion, coupling element or sole, these strips, straps or thongs of a set or of different sets can easily be

exchanged and can be adapted, for example on the bases of the time of day, outfit, season, whether, taste, desire or occasion.

In fig. 5 A - D schematically an alternative embodiment is shown. In this embodiment the end portion 14 of a strip 10, 11 comprises an end element 34 that is flexibly connected to a stem 35 of the end portion 14, for example by a living hinge 40 or such flexible connection. The stem 35 has a first longitudinal axis A. The end element can have an elongated shape, having a second longitudinal axis B. In an initial position as shown in fig. 5A the axis B of the end element 34 extends at an angle α to the axis A of the stem 35. The angle α can for example be about 90 degrees and is preferably at least different from zero degrees. The length L_{ee} of the end element 34 is preferably larger than the diameter D1 of the opening 3, 5, for example comparable to or about the same as the thickness of the sole 2. For connecting the strip 10, 11 to the sole 2 an end 37 of the end element 34 is inserted into the opening 3, 5 and pushed further down, from the top surface 9 towards the bottom side 16. The angle α is reduced to an angle ß, such that the stem 35 is moved preferably approximately against the end element 34, such that they can enter into and through the opening 3, 5 together, as shown in fig. 5B. The end element 34 is pushed all the way through the sole 2, to a position as shown in fig. 5C, where the end element 34 can reposition into for example in initial position, the angle ß again being about 90 degrees or at least larger than 0 degrees.

In the bottom surface 16 of the sole again an indentation 20 can be provided, into which the opening 3, 5 opens. In this embodiment the indentation 20 is preferably shaped such that the end element 34 can be fit, especially press fit in said indentation 20, as is shown in fig. 5D, locking the element 34 in a position in which the axis B extends substantially parallel to the bottom 16 of the sole 2. Again the strip 10, 11 can be released easily by a reverse order of the steps as discussed here above. Thus the strips, straps and/or thongs can be easily exchanged, for example from a set as shown in fig. 4. Obviously the end element can have other configurations, as long as it can

be passed through the opening relatively easy in a first position (as in fig. 5B) and is preventing form passing through the opening in another position (as shown in fig. 5D) Obviously the strip 10, 11 could also be connected directly to the end element 34 directly, thus forming the end portion 14.

In an alternative embodiment as schematically shown in fig. 5E - H the opening 3, 5 can have a shape and dimensions such that the element 34 can be inserted through the opening substantially without the angle α having to change. In this embodiment the stem 35 and the element 34 may be connected to each other more rigidly than in the embodiment of fig. 5A, extending for example at an angle α of 90 degrees, as can be seen in fig. 5F. The end element 34 may be rod like, having a length L_{ee} and a width W_{ee}, perpendicular the length L_{ee} and the axis A, wherein the width W_{ee} is smaller than the length L_{ee}, for example comparable to the diameter or width D_3 of the stem 35, measured in the same direction. The opening 3, 5 has a length Lo and a width Wo, and a longitudinal axis D, extending in the length direction. In the bottom surface 16 of the sole 2 again an indentation 20 can be provided, which has a length Li and a width Wi, and a longitudinal axis C, extending in the length direction and at an angle δ to the longitudinal axis L0 of the opening 3, 5. In an embodiment the angle δ can for example be between 45 and 90 degrees, such as for example approximately 90 degrees.

In embodiments preferably the length L_{ee} and width W_{ee} of the end element 34 are comparable to the length Lo and width Wo of the opening 3, 5, and more preferably also comparable to the length Li and width Wi of the indentation, such that the element 34 can fit into and through the opening 3, 5 with little to no friction of deformation, and can be inserted into the indentation substantially fully. With a shorter opening 3, 5 the element 34 could easily be tilted slightly, in order to fit through.

In embodiments according to fig. 5E - H in a neutral position of the strip 10, 11 or thong 8 the axis B of the end element 34 before insertion into the opening 3, 5 can extend substantially parallel to the surface 9 of the sole 2,

enclosing an angle with the axis D of the opening 3, 5, for example an angle of about 90 degrees, as schematically shown in fig. 5E. In order to be inserted in the direction P into the opening 3, 5 the end portion 14 is rotated around the axis A of the stem 35, for example by twisting the strip 10, 11 attached to the end portion 14, such that the axis B of the end element 34 is brought approximately in line with the axis D of the opening3, 5, as schematically shown in fig. 5F. Then the element 34 is pushed through the opening 3, 5 until it extends below the bottom surface 16, at which point the end element can be rotated back towards and preferably into the initial position as shown in fig. 5E, such that the axis B is aligned substantially with the axis C of the indentation. Then the end element 34 can be pulled up into the indentation 20, fixating the strip 10, 11 to the sole 2, as shown schematically in fig. 5G. By pushing or pulling the end element 34 back out of the indentation and rotating it again into the position aligned with the opening 3, 5, the strip 10, 11 or thong 8 can be released again from said opening 3, 5.

In the embodiment as shown in fig. 5E - H the end portion 14 is provided at an upper end, adjacent the strip 10, 11, with a locking element 53, for example a rod like element extending on opposite sides of the stem 35. In the top surface 9 adjacent the opening 3, 5 corresponding notches 54 are provided, in which the locking element 53 can be received, as shown in fig. 5G. In such embodiment preferably the sole 2 is sufficiently compressible, at least between the notches 54 and the indentation 20, such that the end element 34 and the locking elements 53 can be inserted into or released form the indentation 20 and the notches 54 respectively. The locking elements can prevent the end element 34 from being pushed out of the indentation unintentionally. In this and the other embodiments such locking elements 53 can be used and can for example be positioned on the top surface 9 of the sole 2.

In a further embodiment the end element 34 can be shaped differently, for example disc shaped, with for example a round, oval,

rectangular or multi-angular cross section and opposite top and bottom surfaces extending initially substantially cross to the axis A of the stem 35. The opening 3, 5 can be shaped for example substantially rectangular, such as shown in fig. 5H. The element 34 can be tilted relative to the stem 35 into a position wherein the disc shaped element 34 extends substantially parallel to the axis A of the stem 35 and can be inserted relatively easily into and through the opening 3, 5, where after the element 34 can be tilted back into the initial position and brought against or, preferably into the bottom surface 16 or an appropriately shaped indentation therein. The disc shaped element can be provided with a groove for receiving the stem 35 at least partly in the tilted position.

In fig. 6 A - C schematically a further embodiment is shown of the connection between a sole 2 and an end portion 14. In this embodiment a stem 35 of the end portion 14 is substantially hollow by providing an axial bore 41 substantially parallel to the longitudinal axis A. At the free end 22 a head portion 23 is again provided, having a larger cross section D2 that the stem 35 and, especially, than the cross section D1 of the opening 3, 5. The bore 41 extends through said head portion 23, and is provided with an enlarged chamber 42 within the head portion 23, as shown in fig. 6A. The stem 35 can for example be made of a flexible material, such as an elastomeric or thermoplastic material, or rubber, and/or can be made collapsible in part, for example by axial slices, such that it can be compressed radially to a collapsed position as for example shown in fig. 6B. In this position the stem 35 of the end portion 14 can be pushed through the opening relatively easily, to the position of fig. 6B.

A relatively rigid coupling element 15 is shown in fig. 6, having a substantially rod shaped body configured substantially according to the bore 41. The coupling element has for example a cylindrical body, wherein a widened portion 43 is provided spaced apart from a lower end 44, which fits snugly inside the chamber 42. In the position shown in fig. 6B the coupling

element 15 can be pushed into the bore 40, top end 45 first, until the widened portion 43 is entered into the chamber 42. Then the strip 10, 11 is pulled back up again, towards the top surface 9, inserting the head portion 23 into the indentation 20 and preferably locking it by press fit and/or friction increasing elements 32.

In an alternative embodiment the coupling element 15 can be a screw or bolt, the bore 40 being provided with threading compatible to the screw or bolt. In this embodiment the stem 35 can again be inserted into and through the opening 3, 5, where after the screw or bolt can be screwed into the bore 40, thus connecting the strip 10, 11 to the sole. In this embodiment the stem 35 can be substantially cylindrical, the screw or bolt being provided with an enlarged head for preventing the stem from being pulled back up, out of the sole 2.

In fig. 7A - C a still further embodiment of a end portion 14 and coupling element 15 is shown, for connecting a strip 10,11 or strap or thong 8 to a sole of a sandal 1. In this embodiment the end portion 14 has a substantially arrow shaped head 46 as a first click means 47. The coupling element 15 is provided with a head portion 48 having a cross section D2 larger than the cross section D1 of the opening 3, 5, and a neck 49 extending at a top side thereof. In the neck a bore 50 is provided, extending into a widened chamber 51 having a shape similar to the head 46, forming second click means 52. The neck 49 is preferably made of a relatively flexible material and/or provided with one or more slits 30, such that the head 46 can be pushed through the bore 50 into the chamber 51. Then the wall of the bore 50 will fit around the stem 35 of the end portion 14 again. In this position the coupling means 15 can be pulled back up, into the indentation 20, preferably such that the neck 49 is entered into the opening 3, 5 above the indentation 20, preferably relatively snugly, such that it cannot open again in the position as for example shown in fig. 7C. In this position the end portion 14 is locked in the coupling means 15 and thus in the sole 2. The head portion 48 again

preferably fits snugly, preferably by press fitting and/or increased friction by elements 32, into the indentation 20. By pushing the end portion 14 back down again, it can be released and the strip, strap 10, 11 or thong 8 can once again easily be exchanged.

In the embodiments described and/or disclosed in the description and drawings end portions 14 can be connected to and released from the sole 2 of the sandal 1 easily, preferably without damage to the end portion or sole or a coupling element, if available. Therefore the strips and/or thongs can be readily exchanged for different strips and/or thongs repeatedly.

The invention is by no means limited to the embodiments described and/or disclosed herein. These embodiments are mere examples. Many variants are possible within the scope of the invention as defined by the appending claims, including combinations of embodiments disclosed or parts thereof. Furthermore, for example for different ends of a thong or strip different embodiments of end portions and/or coupling elements may be used in the same sandal. In embodiments the coupling element can be formed integrally with the sole or part thereof. For example in the embodiments of fig. 6 or 7 the coupling element can be formed integrally with the sole, and for example carried by a flexible portion of the sole to be movable between a coupled and a non-coupled position. In some of the embodiments a sole part could be provided below the bottom surface 16, such that the indentation is enclosed. For example the embodiment of fig. 5E - G could be made in such a way, providing sufficient space between the lower side of the indentation 20 and the further sole part for rotation of the end element 34. In the embodiments shown the openings 3, 5 have a length direction substantially perpendicular to the area of the upper and lower surfaces of the sole around the opening. However, this direction can also be chosen differently, for example at an angle to at least one of these surface areas. In an embodiment the end portion 14 could be provided with screw threads, the opening 3, 5 being provided with complementary screw threads, for example by enclosing a

plastic nut within the sole 2. The coupling element 15 can be formed such that it can extend additionally or alternatively through an opening in the end portion 14, such that the coupling element cannot be pulled through the opening 3, 5. The coupling element can for example be rod shaped extending through an opening, for example substantially perpendicular to a longitudinal axis of the end portion, like a forelock.

These and other alternative embodiments are considered to have been disclosed herein as well.

Claims

1. Sandal, comprising a sole and at least one strip for fitting over a part of a wearers foot, said at least one strip comprising at least two ends, at least one end comprising an end portion fitting through an opening in the sole and preferably in an indentation in the sole, the strip extending substantially at a top side of the sole, wherein a coupling element is provided fitted around and/or into at least part of said end portion, which coupling element prevents the end portion from being pulled through the opening in the direction of the top side and can be removed and/or collapsed for passing the end portion through the opening and/or wherein the end portion is dimensioned such that in a first position the end portion can pass through the opening from the top side to the bottom side and in a second position cannot pass through said opening.

2. Sandal according to claim 1, wherein at least one coupling element comprises an opening fitting around and/or into said part of the end portion, wherein the end portion has a length direction substantially parallel to a length direction of the opening between the top and bottom side of the sole, wherein the end portion has a cross section perpendicular to the length direction which is preferably substantially equal to or smaller than the cross section of the opening, perpendicular to the length direction of the opening, wherein the corresponding coupling element has a cross section substantially larger than the cross section of the opening.

3. Sandal according to claim 2, wherein the coupling element has an opening fitting around at least part of the end portion, and preferably has at least one slit extending from a peripheral portion of the coupling element into said opening.

4. Sandal according to any one of claims 1 - 3, wherein the coupling element fits at least partly and preferably substantially entirely inside an indentation in the bottom of the sole.

5. Sandal according to any one of claims 1 - 4, wherein at least one end portion is dimensioned such that in a first position the end portion can pass through the opening from the top side to the bottom side and in a second position cannot pass through said opening, which end portion has a length direction extending substantially parallel to the bottom of the sole when in the second position.

6. Sandal according to claim 5, wherein the end portion has a cross section perpendicular to the length direction and the opening has a length and a width in the top surface, such that the end portion can be moved between a first position in which it can pass relatively easy through the opening, the length directions being positioned substantially parallel to each other, and a second position in which the length direction extends at an angle to the length direction of the opening, such that the end portion cannot pass through the opening.

7. Sandal according to any one of the previous claims, wherein the end portion and/or the coupling element is or are provided with at least one and preferably several friction elements for increasing friction between the end portion and/or the coupling element and the indentation in which it extends.

8. Sandal according to any one of the pervious claims, wherein the sandal is a thong sandal, slipper or flip flop.

9. Sandal according to any one of the previous claims, wherein the end portion can be inserted into and/or over the coupling element.

10. Sandal according to any one of the previous claims, wherein the at least one strip or thong together with the end portion or portions is exchangeable for another strip or thong having such end portion or portions.

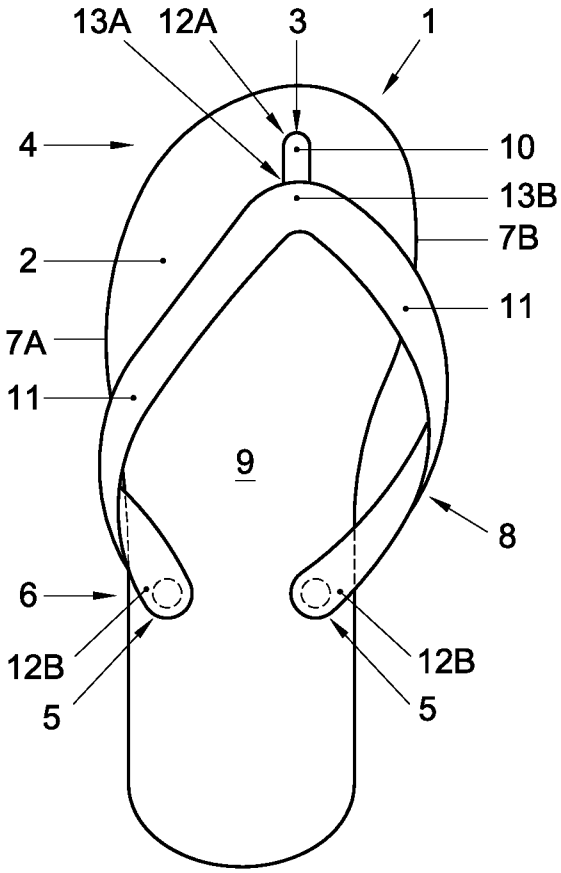
11. Sandal according to claim 10, wherein the sandal has at least four openings in the sole, wherein at least one strip or thong is provided with three end portions and at least one strip is provided with at least four end portions.

12. Set of a sandal, especially according to any one of the previous claims, and at least one strip, one or more ends of the at least one strip provided with an end portion insertable through an opening in a sole of the sandal, and a coupling element for fitting onto, into and/or around the end portion for preventing the end portion from being removed from the opening, the coupling between the end portion and the coupling element being reversible or with an end portion insertable through the opening in a first position, wherein a part of the end portion can be brought into a second position in which the end portion cannot be removed through the opening.

13. Set according to claim 12, wherein a series of strips is provided, at least two of the strips in the series being different from each other.

14. Method for forming a sandal, wherein at least one end portion of a strip is inserted into and/or through an opening in a sole of the sandal and a coupling element is reversibly connected to the end portion.

15. Method for forming a sandal, wherein at least one end portion of a strip is inserted into and through an opening in the sole of the sandal, where after the end portion is tilted or rotated at least partly into a position in which it is prevented from being retracted through the opening.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13B
7B
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7A
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12B
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12B
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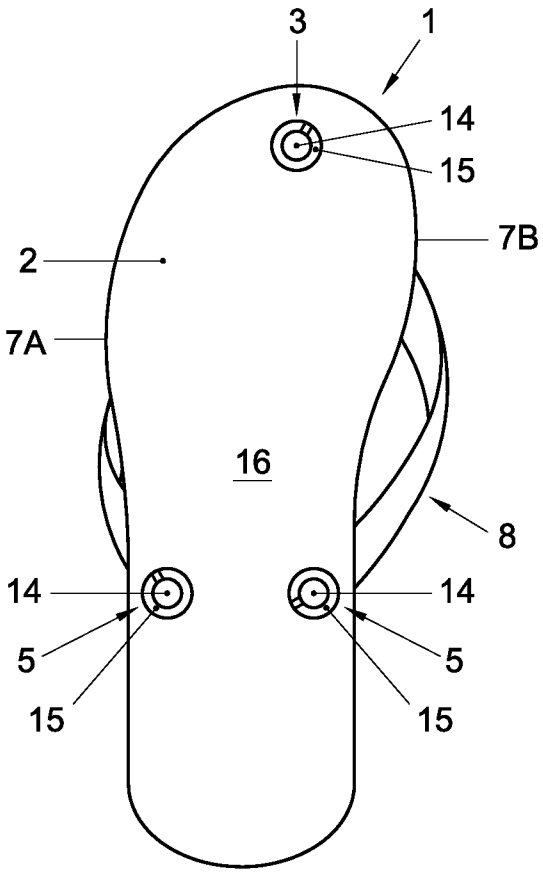
Fig. 1A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7B
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7A
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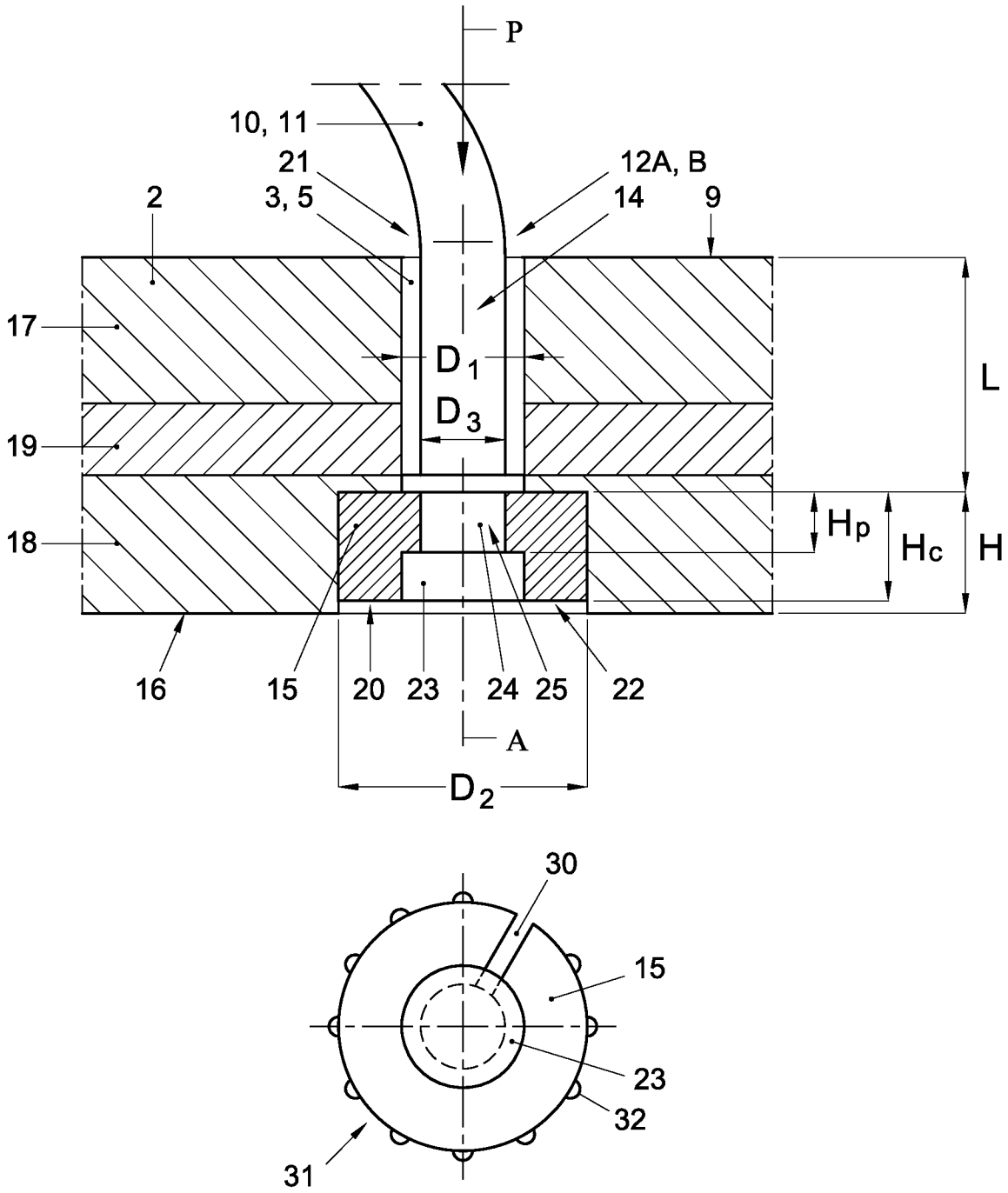
Fig. 1B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10, 11
21
3, 5
12A, B
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9
2
17
19
18
D1
D3
L
Hp
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16
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22
A
D2
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32
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Fig. 2

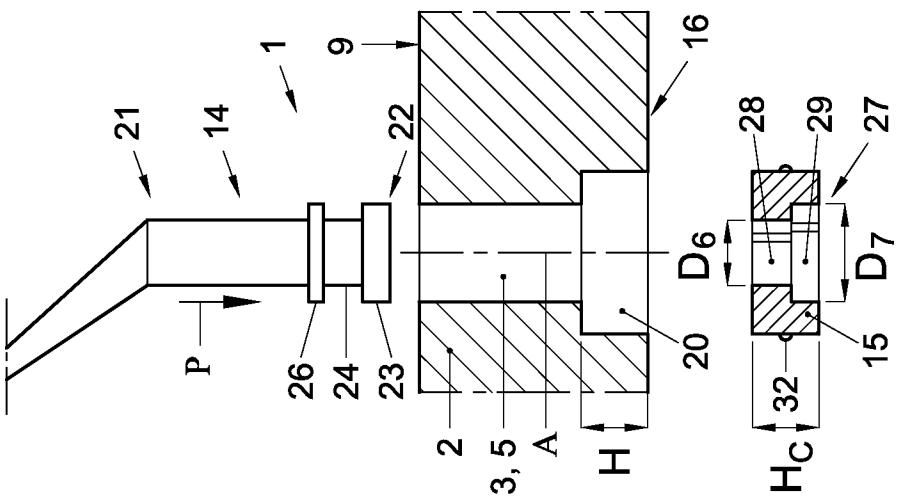
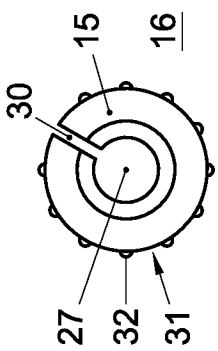


Fig. 3A



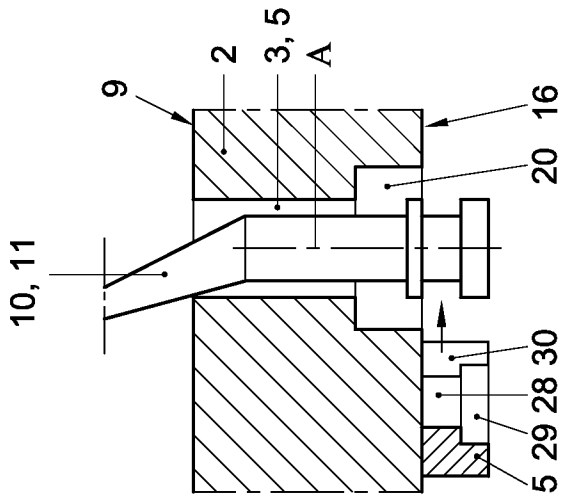
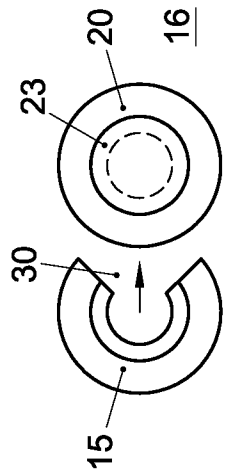


Fig. 3B



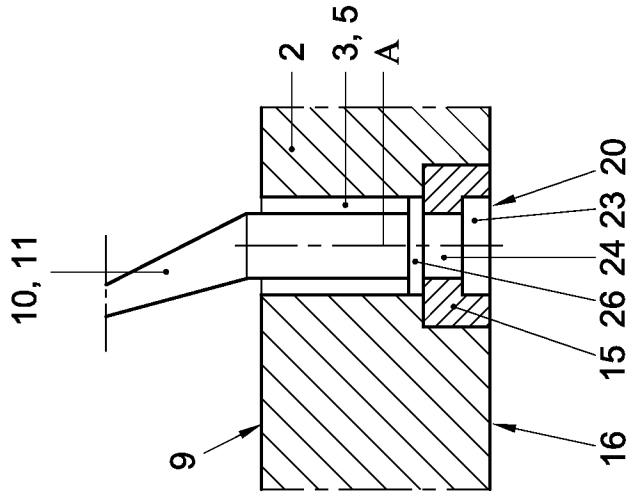
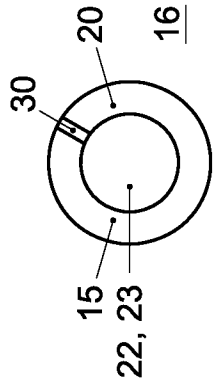


Fig. 3C



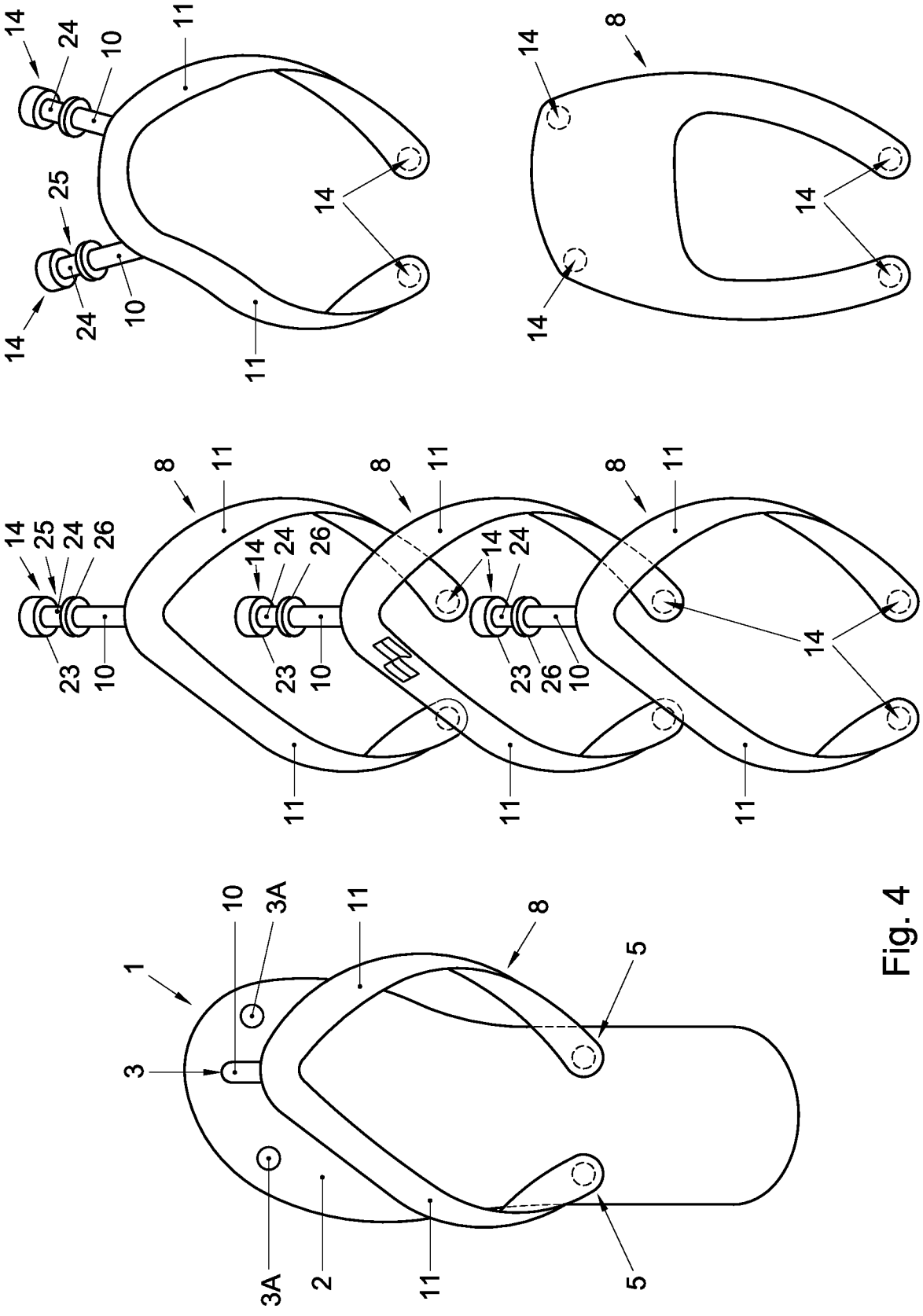

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Fig. 4

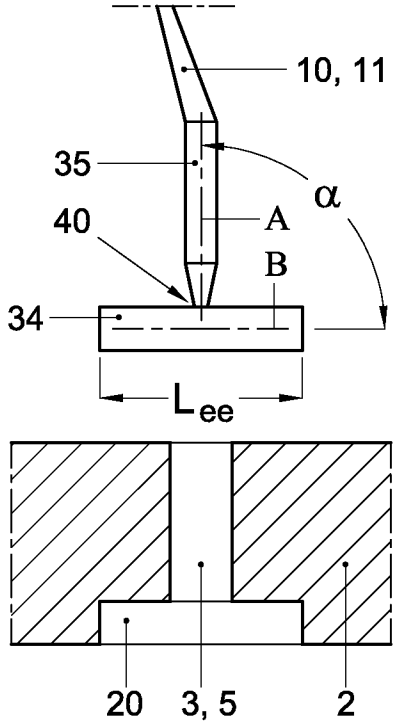

Fig. 5A

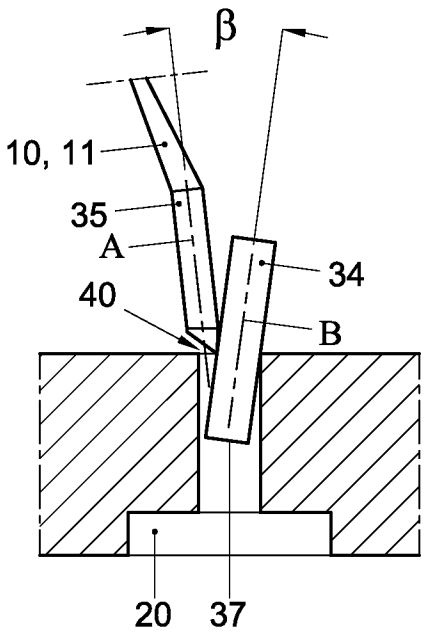

Fig. 5B

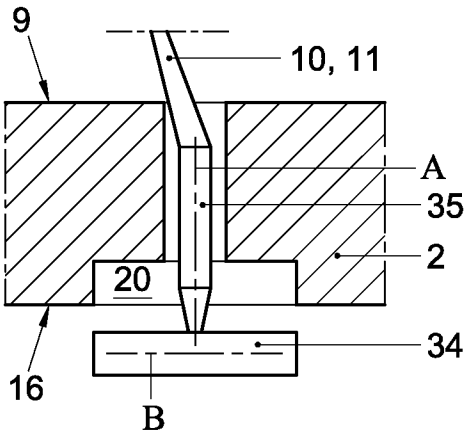

Fig. 5C

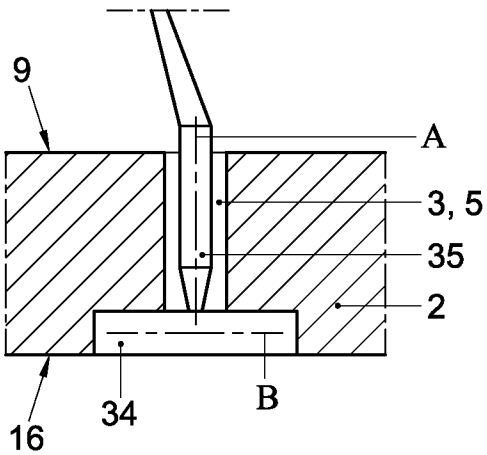

Fig. 5D

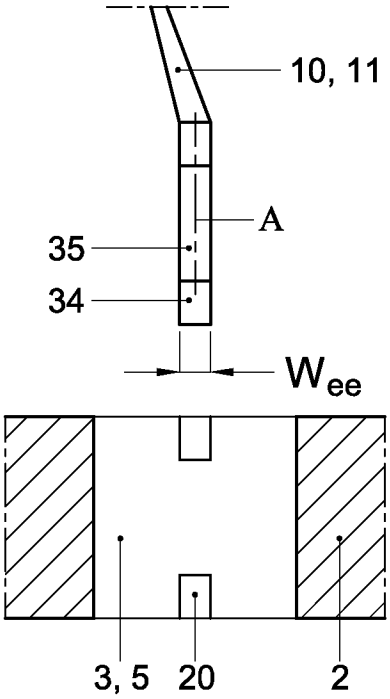

Fig. 5E

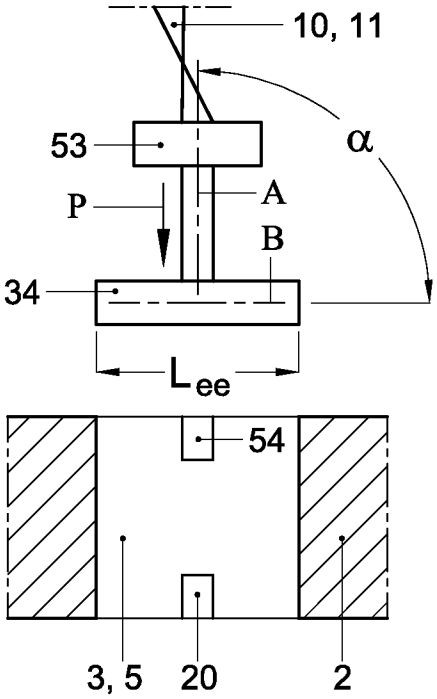

Fig. 5F

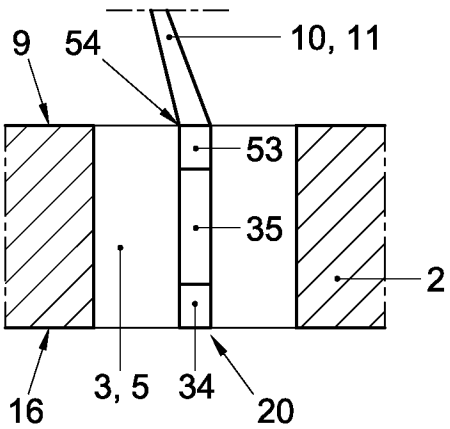

Fig. 5G

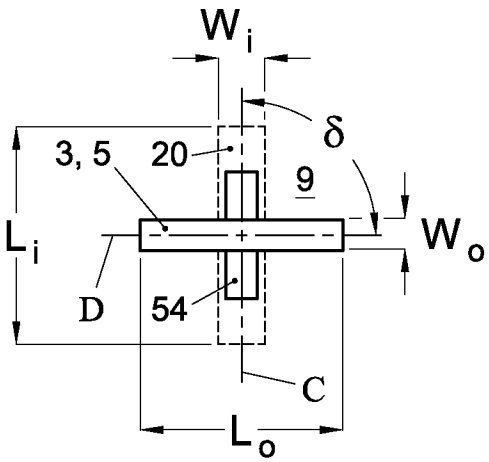

Fig. 5H

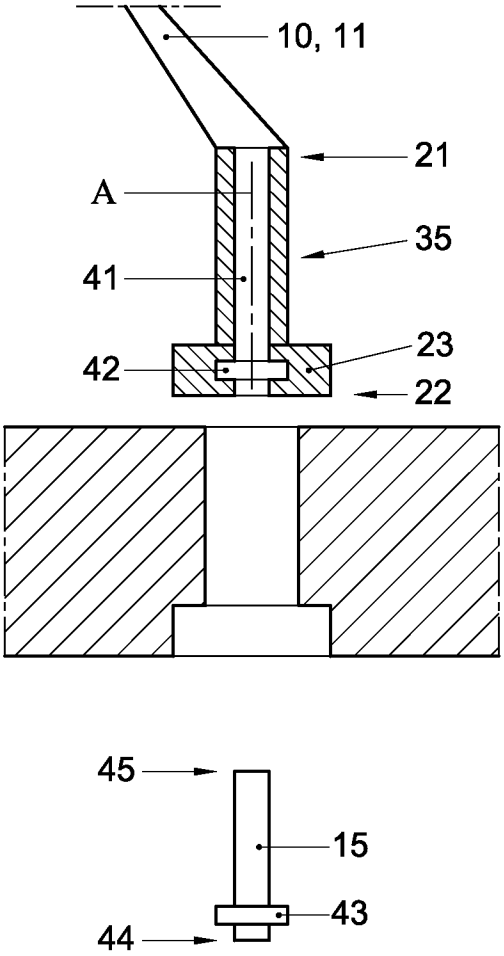

Fig. 6A

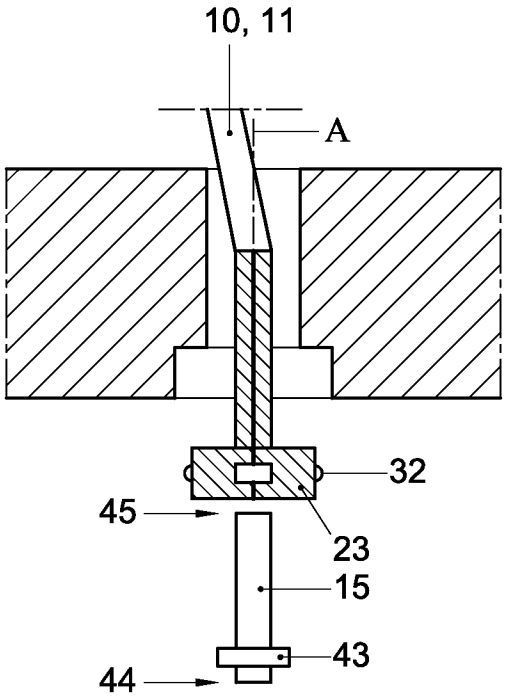

Fig. 6B

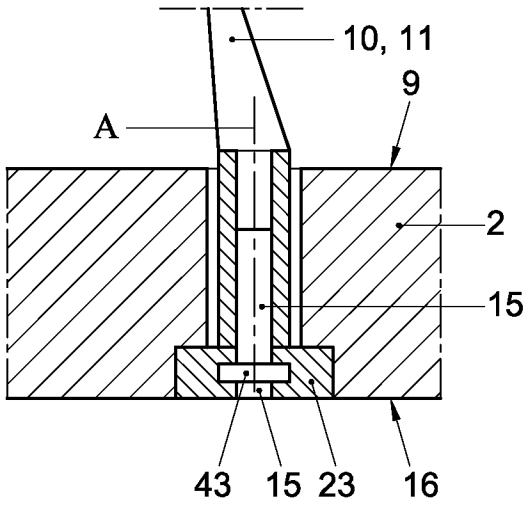

Fig. 6C

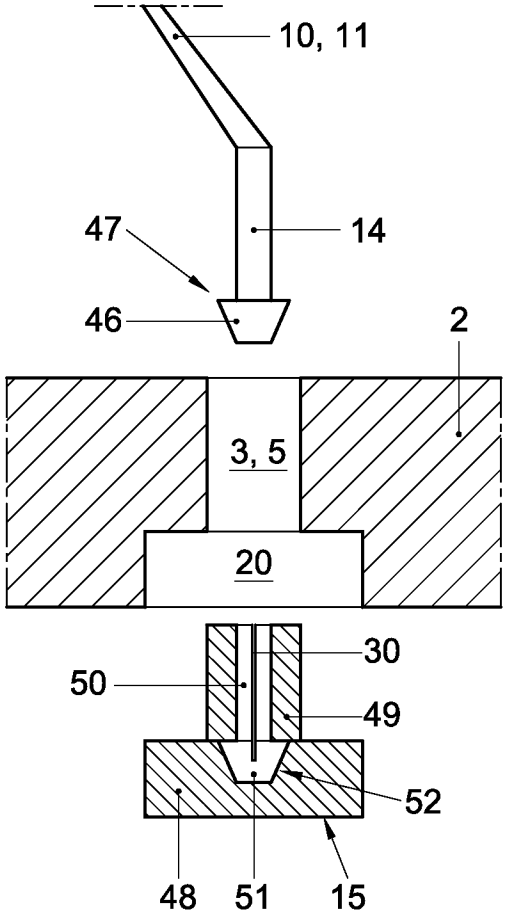

Fig. 7A

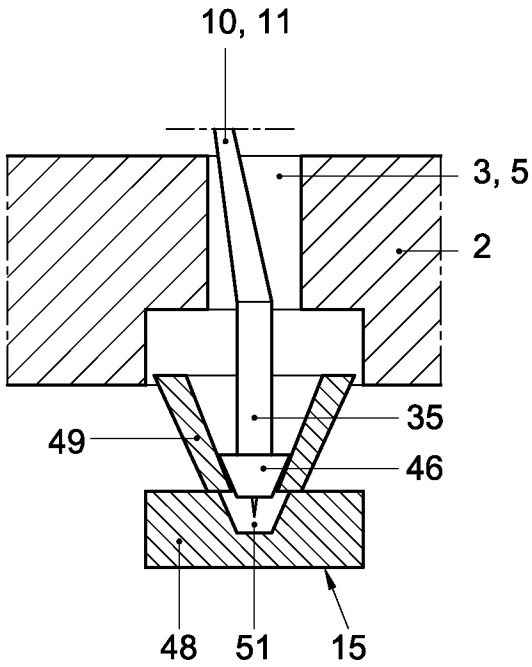

Fig. 7B

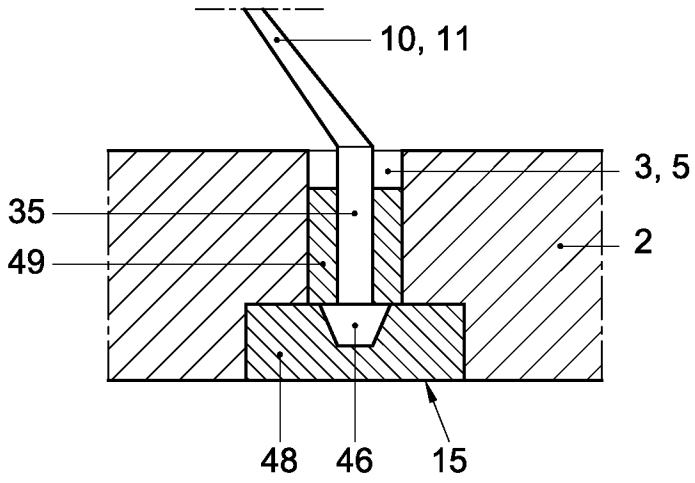

Fig. 7C

INTERNATIONAL SEARCH REPORT

International application No
PCT/NL2012/050358

A. CLASSIFICATION OF SUBJECT MATTER
INV. A43B3/10 A43B3/24
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

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 2007/245597 A1 (KRUTILEK PAMELA K [US] ET AL) 25 October 2007 (2007-10-25) paragraphs [0006] - [0007]; figures	1-4,7-14
X	US 2010/212184 A1 (RUDD JR WALTER [US] ET AL) 26 August 2010 (2010-08-26) paragraphs [0029] - [0034]; figures	1,2,4, 7-14
X	US 2011/099840 A1 (AVENI MICHAEL A [US]) 5 May 2011 (2011-05-05) figures	1,5-10, 12,13,15
X	US 2009/044423 A1 (AMSTERDAM JOHN [US]) 19 February 2009 (2009-02-19) figures	1,5-10, 12,13,15

-/--

[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

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"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

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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
9 August 2012	21/08/2012

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Vesin, Stéphane

INTERNATIONAL SEARCH REPORT

International application No
PCT/NL2012/050358

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/84973 A1 (GIANNELLI ROBERTO [IT]) 15 November 2001 (2001-11-15) the whole document -----	1,5-10, 12,13,15
X	FR 1 123 783 A (PLEE, RAYMONDE) 27 September 1956 (1956-09-27) figures -----	1,5-10, 12,13,15
X,P	WO 2011/134032 A1 (SAO PAULO ALPARGATAS [BR]; PANARIELLO JUNIOR JULIO CESAR [BR]) 3 November 2011 (2011-11-03) figures -----	1-4, 7-10, 12-14

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/NL2012/050358

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