(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 4 516 149 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
**05.03.2025 Bulletin 2025/10**

(21) Application number: **24176639.3**

(22) Date of filing: **17.05.2024**

(51) International Patent Classification (IPC):
***A43C 11/12*** *(2006.01)* ***A43C 13/00*** *(2006.01)*

(52) Cooperative Patent Classification (CPC):
**A43C 11/12; A43C 13/00**

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

(30) Priority: **29.08.2023 IT 202300017754**

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# (54) BOOT, IN PARTICULAR FOR MOTORCYCLISTS, AND METHOD FOR REPLACING A ZIPPER OF A BOOT, IN PARTICULAR FOR MOTORCYCLISTS

(57) A boot (1), in particular for motorcyclists, comprising an upper (3) adapted to at least partly receive a user's foot and a shaft (4) connected to said upper (3) and configured to at least partly receive a user's leg. The boot (1) further comprises a zipper (5) sewn to said shaft (4) for a first length (51) and free for a second length (53) corresponding to an end portion (6) of the zipper (5). Furthermore, the boot (1) comprises a retaining means (7) configured to secure the end portion (6) at least on a connecting surface (8) between the upper (3) and the shaft (4). In particular, the retaining means (7) is switchable between a retaining configuration, in which it constrains the end portion (6) to the connecting surface (8), and a release configuration, in which it allows the end portion (6) to be disengaged from the connecting surface (8).

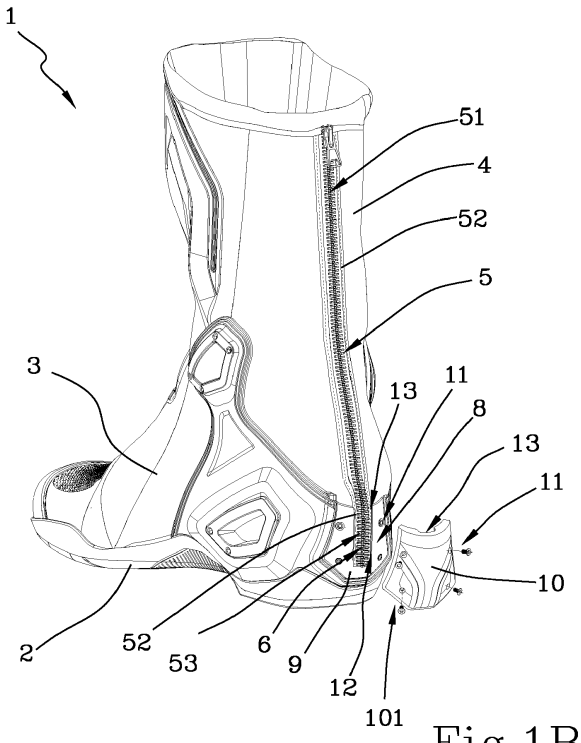


Fig.1B

EP 4 516 149 A1

## Description

### TECHNICAL FIELD

**[0001]** The present invention relates to a boot and a method for replacing a zipper of a boot.

**[0002]** The invention has particular and effective application in the sector of motorcycle clothing, especially sportswear.

### PRIOR ART

**[0003]** In the motorcycling technical sector, boots must ensure a complete protection of the user's foot and leg, as well as high adherence and optimal comfort when riding a motorcycle. In particular, the boots must protect the motorcyclist's foot and leg against impacts, twisting, and laceration. To this end, motorcycle boots can comprise reinforced portions adapted to protect the foot, ankle and leg against impacts and collisions.

**[0004]** It is well known that the shaft of a boot for the practice of sports must be provided with intuitive fastening, which is easy to close, and offers homogeneous tightening. Zipper closures meet these needs and are thus particularly effective for fastening the shafts of motorcycle boots.

**[0005]** In this context, zippers that enable a boot to be opened and closed undergo considerable mechanical stresses, for example due to falls and/or structural loads that are generated during use on the motorcycle, especially in sports competitions. Therefore, over time, the zipper can undergo breakage.

**[0006]** There thus arises a need to remove the damaged zipper from the boot to replace it with a new zipper, in order to render the boot efficient again. The operations of removing a broken zipper from a boot and replacing it with a new zipper pose multiple difficulties, even if carried out by specialised personnel.

**[0007]** In fact, a motorcycle boot is usually made up of various layers of fabric, synthetic material, shields, sliders, or impact-resistant inserts made of plastic, all solidly sewn or glued to each other. The zipper is in turn fixed to the boot upper by sewing and/or gluing in an integrated manner to the reinforcement layers.

**[0008]** Disadvantageously, therefore, it is very complicated and laborious to remove and replace a zipper, without irreparably damaging the upper. Hence, it often happens that the user is forced to change the boot.

### OBJECTS OF THE INVENTION

**[0009]** In this context, the technical task at the basis of the present invention is to propose a boot and a method for replacing a zipper of a boot, in particular for motorcyclists, which overcomes the aforementioned drawbacks of the prior art.

**[0010]** In particular, it is an object of the present invention to provide a boot and a method for replacing a zipper of a boot, in particular for motorcyclists, which is capable of simplifying the replacement of a damaged zipper.

**[0011]** A further object of the present invention is to provide a boot and a method for replacing a zipper of a boot, in particular for motorcyclists, capable of speeding up the replacement of the zipper.

**[0012]** The stated technical task and the specified objects are substantially achieved by a boot and a method for replacing a zipper of a boot, in particular for motorcyclists, comprising the technical features disclosed in one or more of the appended claims.

**[0013]** The dependent claims correspond to possible embodiments of the invention.

### BRIEF DESCRIPTION OF THE DRAWINGS

**[0014]** Additional features and advantages of the present invention will emerge more clearly from the approximate and thus non-limiting description of preferred but non-exclusive embodiments of a boot and a method for replacing a zipper of a boot, in particular for motorcyclists, as illustrated in the appended drawings, in which:

- figures 1A-1B illustrate perspective views of two respective operating configurations of a boot, in particular for motorcyclists, in accordance with one embodiment of the present invention;
- figure 2 illustrates an enlarged view of a portion of a boot, in accordance with a further embodiment of the present invention;
- figure 3 illustrates a detailed view of the boot portion in figure 2.

### DETAILED DESCRIPTION

**[0015]** With reference to the appended figures, the reference number 1 denotes in its entirety a boot, in particular for motorcyclists, which hereinafter will be referred to as the boot 1.

**[0016]** The boot 1 comprises a sole 2, adapted to support a user's foot, and an upper 3, adapted to at least partly receive the user's foot and connected to the sole 2.

**[0017]** Furthermore, the boot 1 comprises a shaft 4 connected to the upper 3 and configured to at least partly receive a user's leg.

**[0018]** The boot 1 comprises a zipper 5 adapted to allow the opening and closing of the boot to facilitate the donning thereof by the user.

**[0019]** In particular, the zipper 5 is sewn to the shaft 4 for a first length 51. The first length 51 extends, for example, from an upper edge of the shaft 4 towards the user's foot.

**[0020]** Preferably, the zipper 5 has along the first length 51 a tape 52 sewn to the shaft 4.

**[0021]** In accordance with one aspect of the invention, the zipper 5 is free for a second length 53 corresponding to an end portion 6 of the zipper itself. In other words, the end portion 6 is neither sewn nor glued to the upper 3 or to

the shaft 4.

**[0022]** Also present is a retaining means 7 configured to secure the end portion 6 of the zipper at least on a connecting surface 8 between the upper 3 and the shaft 4. In particular, the retaining means 7 is switchable between a retaining configuration, in which it constrains the end portion 6 to the connecting surface 8, and a release configuration, in which it allows the end portion 6 to be disengaged from the connecting surface 8.

**[0023]** In this manner, the present invention provides a boot 1 that overcomes the need to sew and/or glue the zipper 5 to the upper 3, without compromising the functionality of the boot. At the same time, the end portion 6 free of stitches and/or gluing greatly facilitates the operations of replacing the zipper.

**[0024]** With reference to the connecting surface 8, it preferably defines a portion of the boot 1 proximal to the zone enclosing the user's heel, when the boot 1 is in use. Furthermore, depending on the extent thereof, the connecting surface 8 can define (also only partly) a portion of the upper and/or a portion of the shaft.

**[0025]** Purely by way of non-limiting example, the zipper can have a length comprised between 20 centimetres and 35 centimetres and the end portion 6 can have a length comprised between 1.5 centimetres and 5 centimetres, preferably 3.5 centimetres.

**[0026]** In accordance with a possible embodiment illustrated in the figures, the retaining means 7 comprises a fixed body 9, solidly associated with the upper 3 and/or the shaft 4, and a movable body 10, reversibly connectable to the fixed body 9. In particular, the movable body 10 can be alternatively connected to and removed from the fixed body 9, in particular to define the release configuration, thereby ensuring, for example during the operation of replacing the zipper 5, convenient access to the end portion 6. Preferably, the fixed body 9 can be made in one piece with the upper 3 and/or the shaft 4.

**[0027]** In accordance with one aspect of the invention, the boot 1 comprises a fastening means 11 for reversibly switching the fixed body 9 and the movable body 10 between the retaining configuration and the release configuration.

**[0028]** Purely by way of non-limiting example, the fastening means 11 can comprise threaded couplings and/or shape couplings and/or couplings of the bayonet type and/or the like.

**[0029]** In accordance with a possible embodiment and as illustrated in figures 1A-1B, the fastening means 11 can comprise threaded couplings 101.

**[0030]** According to further possible embodiments and as illustrated in figures 2-3, the fastening means 11 can comprise at least one anchorage element 102, for example disposed on the movable body 10 and adapted to be inserted into a respective seat 103, for example obtained on the fixed body 9, in order to achieve a fastening between the fixed body 9 and the movable body 10.

**[0031]** In accordance with further possible embodiments, not illustrated, the movable body 10 can be connected to the fixed body 9 by means of strips and/or fasteners and/or laces and/or glues having adhesive properties such as to enable an easy detachment without the inventive concept at the basis of the present invention being altered.

**[0032]** In accordance with a particularly advantageous aspect of the present invention, the movable body 10, during the fastening configuration, at least partly, preferably entirely, covers the end portion 6 of the zipper 5.

**[0033]** In this manner, the movable body 10 provides protection to the end portion 6 of the zipper 5, shielding it from accidental impacts and extending the operating life of the entire zipper 5.

**[0034]** In accordance with a possible embodiment of the present invention and as illustrated in the appended figures, the retaining means 7 defines a housing 12 adapted to at least partly house the end portion 6 of the zipper 5 during the retaining configuration.

**[0035]** For example, the housing can be defined by a groove 13 fashioned on the fixed body 9 and/or the movable body 10.

**[0036]** Preferably, the fixed body 9 and the movable body 10 have respective grooves 13 facing each other during the retaining configuration so as to define the housing 12.

**[0037]** In this manner, the retaining means 7 makes it possible to achieve a retainment of the end portion 6 without determining the occurrence of compressions or excessive mechanical stresses.

**[0038]** Purely by way of non-limiting example, the housing 12 can extend along a substantially vertical direction.

**[0039]** According to a further advantageous aspect, the fixed body 9 and/or the movable body 10 can be made of metal, plastic and/or the like, thus imparting optimal protection to the zipper 5 and the user's foot.

**[0040]** With particular reference to the examples illustrated in figures 1A-1B, the zipper 5 can be disposed in a rear portion of the shaft and extend along a substantially vertical direction, so that the end portion 6 is disposed on the connecting surface 8, when the latter is configured to enclose the user's heel while the boot is in use.

**[0041]** According to further embodiments, not illustrated, the zipper 5 can extend along an oblique direction, for example at least partly wrapping the user's leg and/or foot, and/or the end portion 6 can be disposed in other zones of the boot, for example in proximity to the neck of the user's foot or malleolus, without the inventive concept at the basis of the present invention being altered.

**[0042]** The present invention further relates to a method for replacing a zipper of a boot 1, in particular for motorcyclists, in accordance with what was previously described.

**[0043]** The method comprises a step of switching the retaining means 7 from the retaining configuration to the release configuration and a step of unsewing the first length 51 of the zipper 5 from the shaft 4.

**[0044]** Furthermore, the method comprises a step of sewing a first length 51 of a replacement zipper 5 on the shaft 4 and a step of disposing a second length 53 of the replacement zipper 5 on the connecting surface 8 between the upper 3 and the shaft 4.

**[0045]** The method comprises a step of switching the retaining means 7 from the release configuration to the retaining configuration so as to constrain the end portion 6 of the replacement zipper 5 on the connecting surface 8. Preferably, the unsewing step comprises a sub-step of unsewing the tape 52 of the first length 51 of the zipper 5 from the shaft 4.

**[0046]** Furthermore, the step of switching the retaining means 7 from the retaining configuration to the release configuration and/or the step of switching the retaining means from the release configuration to the retaining configuration can comprise, respectively, a step of connecting and/or disconnecting the movable body 10 and the fixed body 9, the latter being solidly connected to the upper 3 and/or the shaft 4.

**[0047]** It may be observed, therefore, that the present invention achieves the proposed objects by providing a boot, in particular for motorcyclists, and a method for replacing a zipper of a boot, which are capable of simplifying the replacement of the zipper thanks to the presence of a retaining means switchable between a retaining configuration, in which it constrains the end portion on the connecting surface, and a release configuration, in which it allows the end portion to be released from the connecting surface. Advantageously, the present invention, by simplifying the sewing and unsewing operations, makes it possible to speed up the replacement of the zipper.

## Claims

**1.** A boot (1), in particular for motorcyclists, comprising:

- an upper (3) adapted to at least partly receive a user's foot;
- a shaft (4) connected to said upper (3) and configured to at least partly receive a user's leg;
- a zipper (5) sewn to said shaft (4) for a first length (51) and free for a second length (53) corresponding to an end portion (6) of said zipper (5);
- a retaining means (7) configured to secure said end portion (6) at least on a connecting surface (8) between said upper (3) and said shaft (4), said retaining means (7) being switchable between a retaining configuration, in which it constrains said end portion (6) to the connecting surface (8), and a release configuration, in which it allows said end portion (6) to be disengaged from said connecting surface (8).

**2.** The boot in accordance with claim 1, wherein said connecting surface (8) at least partly defines a portion of said upper (3).

**3.** The boot in accordance with claim 1 or 2, wherein said connecting surface (8) at least partly defines a portion of said shaft (4).

**4.** The boot in accordance with any one of the preceding claims, wherein said retaining means (7) comprises a fixed body (9), connected to said upper (3) and/or said shaft (4), and a movable body (10), reversibly associable with said fixed body (9) so as to bring about said retaining configuration.

**5.** The boot in accordance with claim 4, wherein said fixed body (9) is made in one piece with said upper (3) and/or said shaft (4).

**6.** The boot in accordance with claim 4 or 5, comprising a fastening means (11) active on said retaining means (7) so as to reversibly switch said fixed body (9) and said movable body (10) between the retaining configuration and the release configuration; said fastening means (11) preferably comprising threaded couplings (101) and/or shape couplings and/or couplings of the bayonet type and/or the like.

**7.** The boot in accordance with one or more of claims 4-6, wherein said movable body (10), during the fastening configuration, at least partly, preferably entirely, covers said end portion (6) of the zipper (5).

**8.** The boot in accordance with one or more of the preceding claims, wherein said retaining means (7) defines a housing (12) adapted to at least partly house the end portion (6) of the zipper (5), at least during the retaining configuration.

**9.** The boot in accordance with claim 8 when it depends on any one of claims 4-7, wherein said housing (12) is at least partly defined by a groove (13) fashioned on said fixed body (9) and/or said movable body (10).

**10.** The boot in accordance with any one of the preceding claims, wherein said end portion (6) has a length comprised between 1.5 centimetres and 5 centimetres, preferably 3.5 centimetres.

**11.** The boot in accordance with any one of the preceding claims, wherein said retaining means (7) is disposed in a portion of the upper (3) and/or shaft (4) adapted to at least partly accommodate a user's heel.

**12.** The boot in accordance with any one of the preceding claims, wherein said end portion (6) is not sewn or glued to said upper (3) and/or said shaft (4).

**13.** A method for replacing a zipper (5) of a boot made in accordance with one or more of the preceding claims, comprising the steps of:

- switching said retaining means (7) from said retaining configuration to said release configuration;
- unsewing said first length (51) of the zipper (5) from said shaft (4);
- sewing a first length (51) of a replacement zipper (5) onto said shaft (4);
- disposing a second length (53) of the replacement zipper (5) on a connecting surface (8) between said upper (3) and said shaft (4);
- switching said retaining means (7) from said release configuration to said retaining configuration so as to constrain an end portion (6) of the replacement zipper (5) corresponding to said second length (53) of the replacement zipper (5) on said connecting surface (8).

**14.** The method in accordance with claim 13, wherein said step of switching said retaining means (7) from said retaining configuration to said release configuration and/or said step of switching said retaining means (7) from said release configuration to said retaining configuration respectively comprise a step of associating and/or dissociating a movable body (10) and a fixed body (9), connected to the upper (3) and/or to the shaft (4).

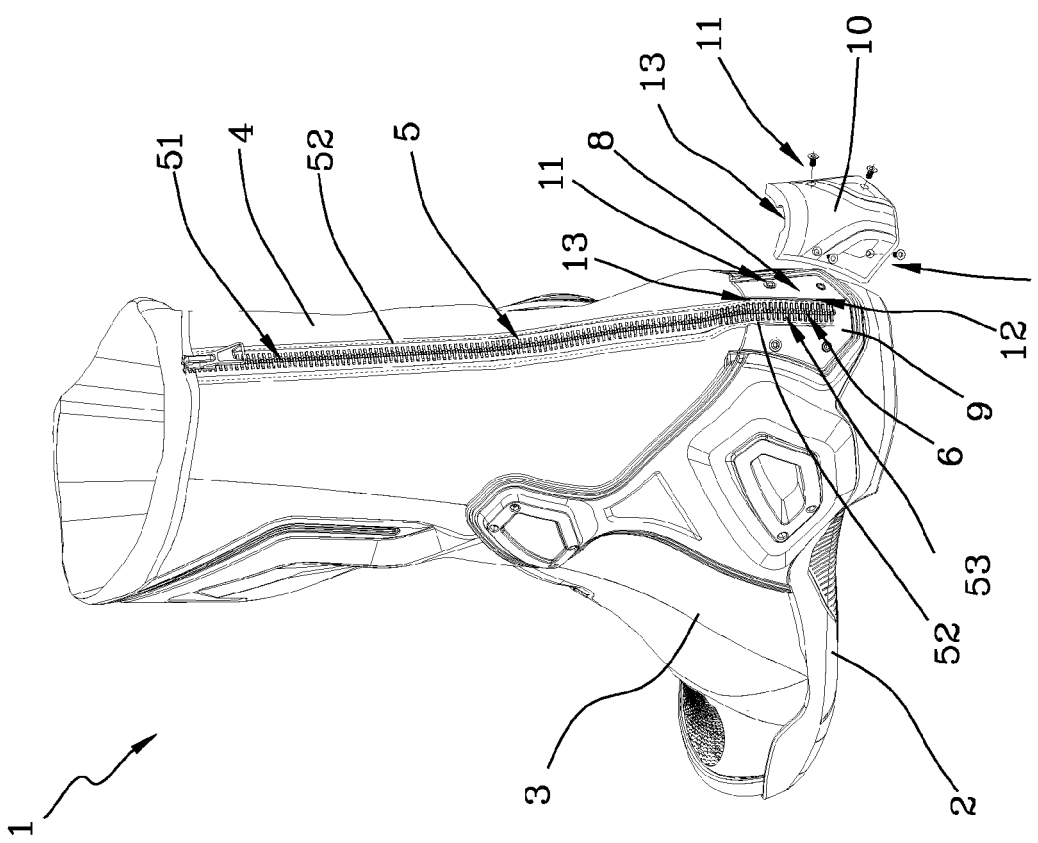
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Fig.1B

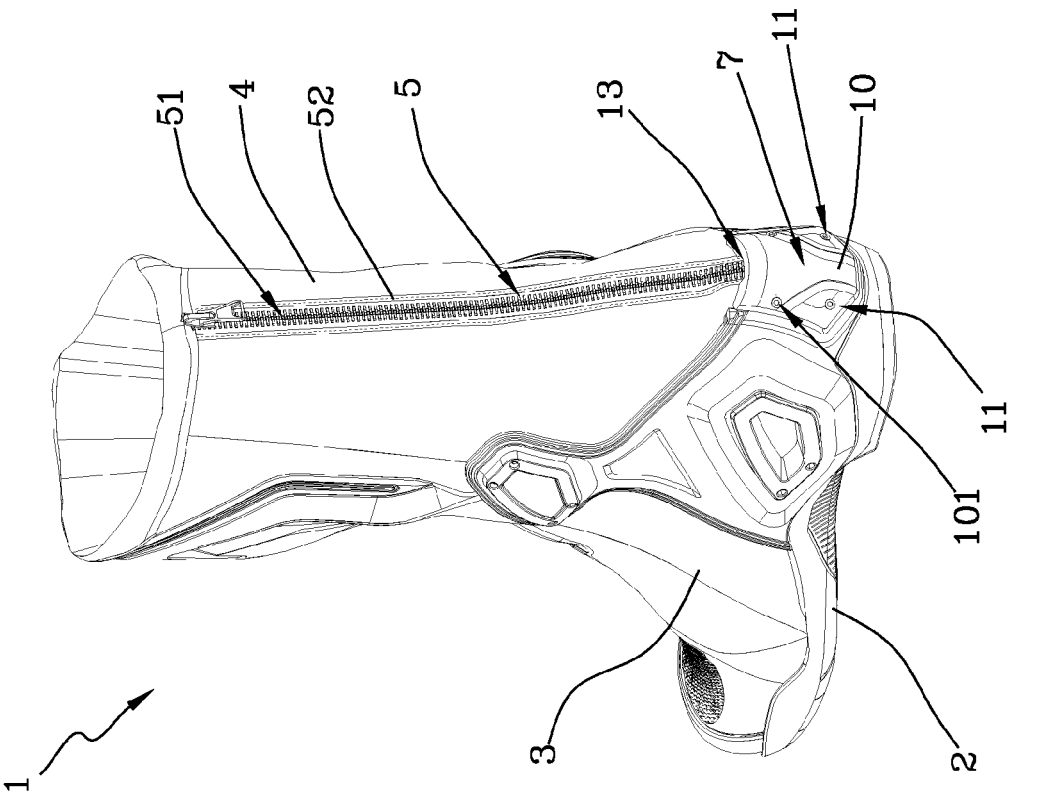
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Fig.1A

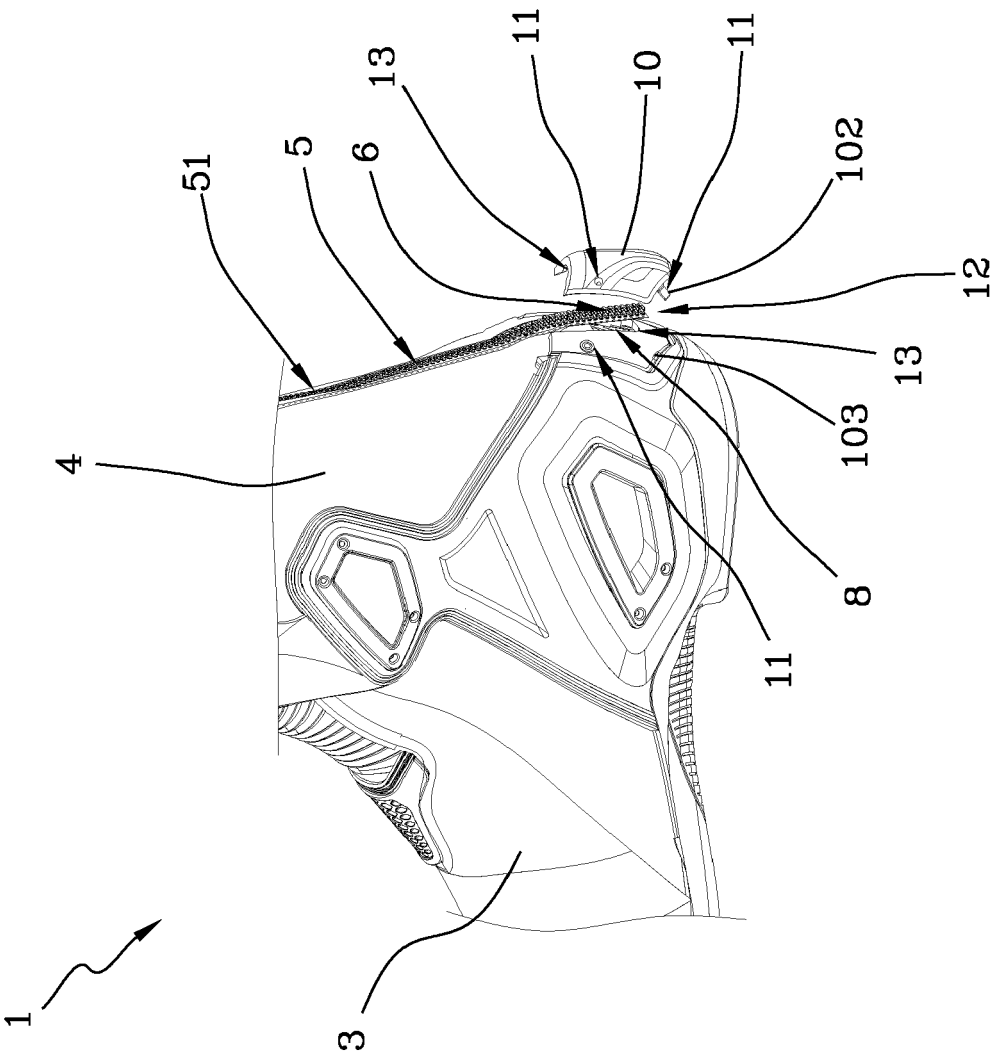


Fig.2

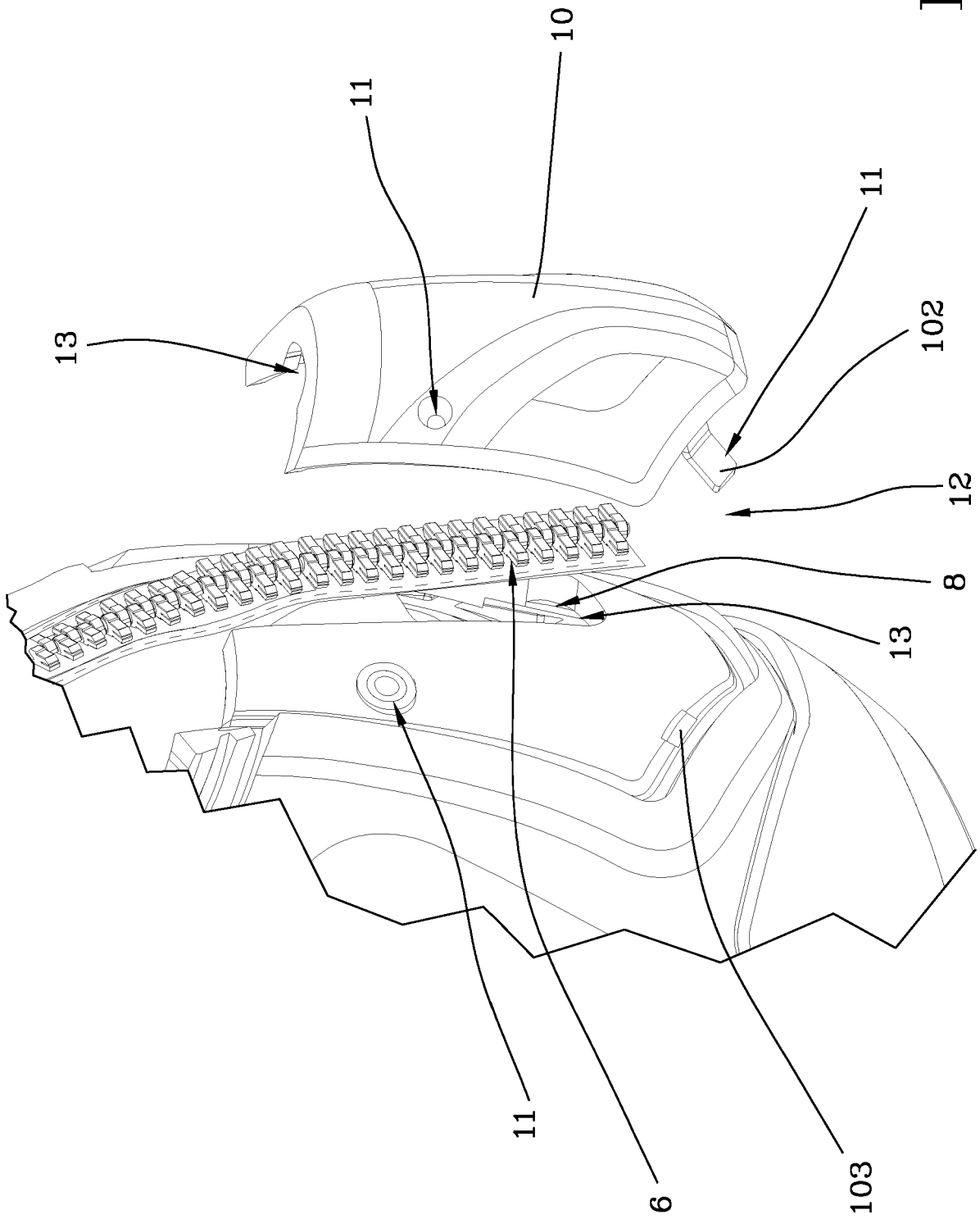


Fig.3

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# EUROPEAN SEARCH REPORT

Application Number
EP 24 17 6639

## DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (IPC) |
|---|---|---|---|
| X | EP 0 569 012 A1 (HAIX SCHUHE PRODUKTIONS UND VE [DE]) 10 November 1993 (1993-11-10) * column 3, line 30 - line 58; figures 1,2 * | 1-14 | INV. A43C11/12 A43C13/00 |
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TECHNICAL FIELDS SEARCHED (IPC)

A43C

The present search report has been drawn up for all claims

| Place of search | Date of completion of the search | Examiner |
|---|---|---|
| The Hague | 1 October 2024 | Baysal, Kudret |

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# ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 24 17 6639

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82