



(11)

EP 4 140 763 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:
01.03.2023 Bulletin 2023/09

(51) International Patent Classification (IPC):
B43K 23/008 ^(2006.01) **B43K 23/012** ^(2006.01)
B43L 15/00 ^(2006.01)

(21) Application number: **21193447.6**

(52) Cooperative Patent Classification (CPC):
B43K 23/008; B43K 23/012; B43L 15/00

(22) Date of filing: **27.08.2021**

(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 MK MT NL NO
PL PT RO RS SE SI SK SM TR**
Designated Extension States:
BA ME
Designated Validation States:
KH MA MD TN

• **Société BIC**
92110 Clichy (FR)

(72) Inventors:
• **PETRATOU, Eirini**
92110 Clichy (FR)
• **CHATZIGRIGORIOU, Nikolaos**
14569 Anoixi (GR)

(71) Applicants:
• **BIC Violex Single Member S.A.**
14569 Anoixi (GR)

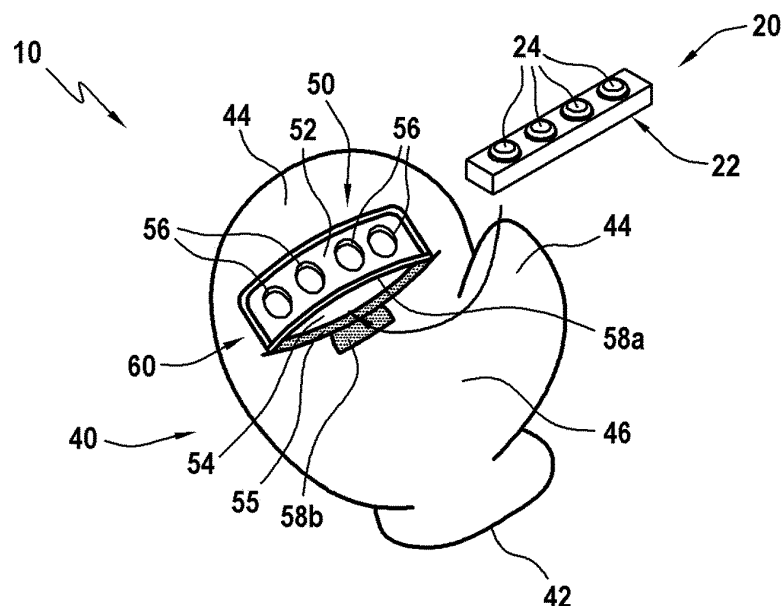
(74) Representative: **Cabinet Beau de Loménie**
158, rue de l'Université
75340 Paris Cedex 07 (FR)

(54) **A WRITING INSTRUMENT AND METHOD THEREOF**

(57) A writing instrument (10) configured to be worn on a hand of a user, the writing instrument comprising a removable writing element (20) being configured to transfer a writing medium (26) to a surface (100), a holding member (40) being configured to at least partially surround at least a portion of the hand of the user so as to be supported by at least the portion of the hand of the user, the holding member including a retainer (50) being

configured to engage the removable writing element (20), and wherein the holding member at least partially surrounding at least the portion of the hand of the user and engagement of the writing element (20) by the retainer (50) of the holding member (40) allows the user to use the writing instrument (10) without grasping the writing instrument.

[Fig. 1]



Description

FIELD

[0001] The present disclosure relates generally to the field of writing instruments. More specifically, the present disclosure relates to a writing instrument configured to be worn on a hand of a user.

BACKGROUND

[0002] A traditional writing instrument may include a tubular housing, a cartridge configured to store a fluid-based writing medium, such as ink, and a writing tip configured to transfer the writing medium to a surface. To use a traditional writing instrument, a user must typically grasp the housing and/or the writing tip of the traditional writing instrument with their hand in order to sufficiently control the traditional writing instrument. Particularly, to use a traditional writing instrument, the user must typically grasp the housing and/or the writing tip of the traditional writing instrument between at least two fingers of the hand in order to sufficiently control the traditional writing instrument.

[0003] Grasping a traditional writing instrument requires a use of gross motor skills (e.g. being able to sit upright and move an arm independently of the body) and fine motor skills (e.g. being able to isolate and/or move fingers of the hand independent of a palm of the hand) by the user. As such, use of a traditional writing instrument may be particularly difficult for an infant, a person having certain disabilities, and/or the like. Accordingly, not being able to grasp a traditional writing instrument may preclude a person from sensorimotor development, strength development, creative expression, fun and enjoyment, color awareness, and/or the like.

[0004] Currently available alternatives to using a traditional writing instrument may include finger painting, sponge painting, limited use devices which attach writing elements to fingertips of a user, and/or the like. However, these currently available alternatives are typically messy and/or do not allow for reuse and replacement of the device and/or the writing element.

[0005] It is desirable to provide a writing instrument configured to be worn on a hand of a user, which includes structures and/or relationships configured to allow the user to use the writing instrument without having to grasp the writing instrument, in a manner that improves reuse of the writing instrument in a hassle-free and convenient manner.

SUMMARY

[0006] According to aspects of the present disclosure, a writing instrument configured to be worn on a hand of a user is provided. The writing instrument comprises a removable writing element being configured to transfer a writing medium to a surface, a holding member being

configured to at least partially surround at least a portion of the hand of the user so as to be supported by at least the portion of the hand of the user, the holding member including a retainer being configured to engage the removable writing element, and wherein the holding member at least partially surrounding at least the portion of the hand of the user and engagement of the writing element by the retainer of the holding member allows the user to use the writing instrument without grasping the writing instrument.

[0007] According to aspects of the present disclosure, the retainer of the holding member defines a cavity, and the cavity is configured to receive the writing element.

[0008] According to aspects of the present disclosure, the retainer of the holding member defines one or more aperture in communication with the cavity of the retainer, and the one or more aperture is configured to allow at least a portion of the writing element to project out of the retainer.

[0009] According to aspects of the present disclosure, the retainer of the holding member includes a flap configured to extend over the writing element.

[0010] According to aspects of the present disclosure, the retainer of the holding member includes a fastening element configured to secure the writing element within the retainer.

[0011] According to aspects of the present disclosure, the holding member includes a writing section configured to project away from an underside of the hand of the user when the writing instrument is worn on the hand of the user.

[0012] According to aspects of the present disclosure, the retainer of the holding member is aligned with the writing section of the holding member.

[0013] According to aspects of the present disclosure, the holding member is configured to engage a lid, and the lid is configured to protect the writing element.

[0014] According to aspects of the present disclosure, the writing element includes a base and a writing tip extending from the base.

[0015] According to aspects of the present disclosure, the writing element includes a reservoir configured to store and supply the writing medium to the writing tip.

[0016] According to aspects of the present disclosure, the base of the writing element defines a compartment configured to secure the reservoir and the writing tip.

[0017] According to aspects of the present disclosure, a plurality of writing tips extend from the base of the writing element.

[0018] According to aspects of the present disclosure, the holding member is in the form of a glove configured to be worn on the hand of the user.

[0019] According to aspects of the present disclosure, a method of using a writing instrument comprises providing the writing instrument according to any aspect disclosed herein and at least partially inserting at least a portion of a hand of a user into the holding member of the writing instrument.

[0020] According to aspects of the present disclosure, the method comprises pressing an underside of the hand of the user against a writing surface.

[0021] In the manner described and according to aspects illustrated herein, the writing instrument and the method of using a writing instrument allow the user to use the writing instrument without having to grasp the writing instrument, in a manner that improves reuse of the writing instrument in a hassle-free and convenient manner.

BRIEF DESCRIPTION OF THE DRAWINGS

[0022] Aspects of an embodiment will be described in reference to the drawings, where like numerals reflect like elements:

Figure 1 is an exploded perspective view of the writing instrument according to aspects of the present disclosure;

Figure 2 is a perspective view of the writing instrument according to Figure 1;

Figure 3 is a bottom cross-sectional view of the writing instrument according to Figure 1, taken along line III of Figure 2;

Figure 4 is a perspective view of the writing instrument according to Figure 1, depicting the writing instrument in use, according to aspects of the present disclosure;

Figure 5 is a exploded perspective view of an alternative configuration of the writing instrument according to Figure 1, according to aspects of the present disclosure;

Figure 6 is a perspective view of the writing instrument according to Figure 5;

Figure 7 is a perspective view of an alternative configuration of the writing instrument according to Figure 1, according to aspects of the present disclosure;

Figure 8 is an exploded perspective view of the writing instrument according to Figure 1, depicting an alternative fastening element of the writing instrument, according to aspects of the present disclosure;

Figure 9 is a perspective view of the writing instrument according to Figure 1, depicting use of a lid, according to aspects of the present disclosure;

Figure 10 is a perspective view of an alternative arrangement of the lid according to Figure 9, with a container according to aspects of the present disclosure, and a writing element of the writing instrument according to Figure 1, according to aspects of the present disclosure;

Figure 11 is a perspective view of an alternative configuration of the writing instrument according to Figure 1, according to aspects of the present disclosure;

Figure 12 is a perspective view of the writing instrument according to Figure 11, depicting the writing instrument in use, according to aspects of the present disclosure;

Figure 13 is an enlarged perspective view of a writing tip of the writing instrument according to Figure 12; and

Figure 14 is a perspective view of an alternative configuration of the writing instrument according to Figure 11, according to aspects of the present disclosure.

DETAILED DESCRIPTION

[0023] An embodiment of a writing instrument and a method of using the writing instrument according to aspects of the disclosure will now be described with reference to Figures 1-14. Like numerals represent like parts, and the writing instrument will generally be referred to by the reference numeral 10. Although the writing instrument 10 is described with reference to specific examples, it should be understood that modifications and changes may be made to these examples without going beyond the general scope as defined by the claims. In particular, individual characteristics of the various embodiments shown and/or mentioned herein may be combined in additional embodiments. Consequently, the description and the drawings should be considered in a sense that is illustrative rather than restrictive. The Figures, which are not necessarily to scale, depict illustrative aspects and are not intended to limit the scope of the disclosure. The illustrative aspects depicted are intended only as exemplary.

[0024] The term "exemplary" is used in the sense of "example," rather than "ideal." While aspects of the disclosure are amenable to various modifications and alternative forms, specifics thereof have been shown by way of example in the drawings and will be described in detail. It should be understood, however, that the intention is not to limit aspects of the disclosure to the particular embodiment(s) described. On the contrary, the intention of this disclosure is to cover all modifications, equivalents, and alternatives falling within the scope of the disclosure.

[0025] Various materials, methods of construction and methods of fastening will be discussed in the context of the disclosed embodiment(s). Those skilled in the art will recognize known substitutes for the materials, construction methods, and fastening methods, all of which are contemplated as compatible with the disclosed embodiment(s) and are intended to be encompassed by the appended claims.

[0026] As used in this disclosure and the appended claims, the singular forms "a," "an," and "the" include plural referents unless the content clearly dictates otherwise. As used in this disclosure and the appended claims, the term "or" is generally employed in its sense including "and/or" unless the content clearly dictates otherwise.

[0027] Throughout the description, including the claims, the terms "comprising a," "including a," and "having a" should be understood as being synonymous with "comprising one or more," "including one or more," and "having one or more" unless otherwise stated. In addition,

any range set forth in the description, including the claims should be understood as including its end value(s) unless otherwise stated. Specific values for described elements should be understood to be within accepted manufacturing or industry tolerances known to one of skill in the art, and any use of the terms "substantially," "approximately," and "generally" should be understood to mean falling within such accepted tolerances.

[0028] When an element or feature is referred to herein as being "on," "engaged to," "connected to," or "coupled to" another element or feature, it may be directly on, engaged, connected, or coupled to the other element or feature, or intervening elements or features may be present. In contrast, when an element or feature is referred to as being "directly on," "directly engaged to," "directly connected to," or "directly coupled to" another element or feature, there may be no intervening elements or features present. Other words used to describe the relationship between elements or features should be interpreted in a like fashion (e.g., "between" versus "directly between," "adjacent" versus "directly adjacent," etc.).

[0029] Spatially relative terms, such as "top," "bottom," "middle," "inner," "outer," "beneath," "below," "lower," "above," "upper," and the like, may be used herein for ease of description to describe one element or feature's relationship to another element(s) or feature(s) as illustrated in the drawings. Spatially relative terms may be intended to encompass different orientations of a device in use or operation in addition to the orientation depicted in the drawings. For example, if the device in the drawings is turned over, elements described as "below" or "beneath" other elements or features would then be oriented "above" the other elements or features. Thus, the example term "below" can encompass both an orientation of above and below. The device may be otherwise oriented (rotated 90 degrees or at other orientations) and the spatially relative descriptors used herein interpreted accordingly.

[0030] Although the terms "first," "second," etc. may be used herein to describe various elements, components, regions, layers, sections, and/or parameters, these elements, components, regions, layers, sections, and/or parameters should not be limited by these terms. These terms are only used to distinguish one element, component, region, layer, or section from another region, layer, or section. Thus, a first element, component, region, layer, or section discussed herein could be termed a second element, component, region, layer, or section without departing from the teachings of the present disclosure.

[0031] As shown in Figures 1-2, 4-7, 11-12, and 14 the writing instrument 10 is configured to be worn on a hand of a user. Additionally, as shown in Figures 4 and 12, the writing instrument 10 is configured to produce writing and/or drawing, e.g. figures, characters, lines, forms, and/or the like, upon a writing and/or drawing surface (hereafter referred to as "the surface") 100. To this end, referring to Figures 1, 3, 5, and 11, the writing instrument

10 includes a writing element 20 configured to produce the writing and/or drawing upon the surface 100. In the disclosed embodiment, the writing element 20 includes a base 22 configured to provide support to the writing element 20 and a writing tip 24 extending from the base 22 and configured to transfer a writing medium 26 to the surface 100. It is contemplated that the term "writing medium" may be understood a fluid-based solution including at least one colorant and capable of bonding to the surface to leave a mark, such as ink, paint, and/or the like. Accordingly, as shown in Figure 3, the writing element 20 may include a reservoir (also may be referred to herein as a "filler") 28 configured to store the writing medium 26 and to supply the writing medium to the writing tip 24. The writing tip 24 may include any structure suitable for absorbing and/or transferring the writing medium 26, such as a fibrous bundle or nib, a capillarity duct, a felt duct, and/or the like.

[0032] As shown in Figures 1, 3, 5, and 11, the writing element 20 may include one or more writing tips 24. Additionally, the writing element 20 may include one or more reservoirs 28. For example, as shown in Figures 1 and 11, the writing instrument 10 may be configured to include an individual writing element 20 corresponding to the entire hand of the user. In this example, the writing instrument 10 includes one writing element 20. Additionally, in this example, the writing element 20 may include a plurality of writing tips 24 and a plurality of reservoirs 28. Further, in this example, the writing element 20 may include writing tips 24 within a range of one to eight writing tips 24 and reservoirs 28 within a range of one to eight reservoirs 28, but particularly the writing element 20 may include four writing tips 24 and four reservoirs 28. Including an individual writing element 20 corresponding to the entire hand of the user allows the user to write and/or draw without having to grasp the writing instrument 10. It is contemplated that the phrase "to write and/or draw [use the writing instrument 10] without having to grasp the writing instrument 10" may otherwise be understood as the user being capable of bringing the writing instrument 10 into contact with the surface 100 without having to actively hold the writing instrument 10. Moreover, including an individual writing element 20 corresponding to the entire hand of the user allows the user to have improved control when writing and/or drawing, in a scenario in which the user does not have sufficient dexterity to isolate and/or move each finger of the hand of the user independent of a palm of the hand of the user. Alternatively, as shown in Figure 5, the writing instrument 10 may be configured to include an individual writing element 20 corresponding to a finger on the hand of the user. In this example, each individual writing element 20 may include one writing tip 24 and one reservoir 28. Additionally, in this example, the writing instrument 10 may include writing elements 20 within a range of four to five writing elements 20 corresponding to four to five fingers on the hand of the user, but particularly the writing instrument 10 may include four writing elements 20 corre-

sponding to four fingers on the hand of the user. Including an individual writing element 20 corresponding to a finger on the hand of the user allows the user to write and/or draw without having to grasp the writing instrument 10. Moreover, including an individual writing element 20 corresponding to a finger on the hand of the user allows the user to have more versatility when writing and/or drawing.

[0033] As shown in Figures 1, 3, 5, and 10, the base 22 includes a rigid structure in order to adequately support the writing tip 24 and the reservoir 28. As such, the base 22 may be made of a polymeric material, such as polypropylene, polyethylene, polystyrene, polycarbonate, acrylonitrile butadiene styrene (ABS), polyethylene terephthalate (PET), silicone, and/or the like. Referring to Figure 3, the base 22 may include one or more compartment 30 configured to receive and/or accommodate a corresponding writing tip 24 and reservoir 28. For example, referring to Figures 1 and 3, in the example in which the writing instrument 10 is configured to include an individual writing element 20 corresponding to the entire hand of the user, the base 22 of the writing element 20 may include a plurality of compartments 30 each configured to accommodate a corresponding writing tip 24 and a corresponding reservoir 28. In this example, the base 22 may include one to eight compartments 30, but particularly the base 22 may include four compartments 30. Alternatively, as shown in Figure 5, in the example in which the writing instrument 10 is configured to include an individual writing element 20 corresponding to a finger on the hand of the user, each base 22 of each writing element 20 may include one compartment 30 configured to accommodate a corresponding writing tip 24 and a corresponding reservoir 28. As shown in Figure 3, the compartment 30 may be configured to secure the writing tip 24 and the reservoir 28. Accordingly, the base 22 includes a shoulder 32 that projects inwardly within each compartment 30 to engage at least a portion of the reservoir 28, such that the writing tip 24 and the reservoir 28 are secured within the compartment 30. Additionally, it is contemplated that the writing element 20 may be configured to be refillable. Accordingly, the writing tip 24 and the reservoir 28 may be configured to be removable from the compartment 30 of the base 22 and insertable into the compartment 30 of the base 22, so as to be replaceable.

[0034] As shown in Figure 3, in the example in which the writing instrument 10 is configured to include an individual writing element 20 corresponding to the entire hand of the user, the base 22 may define a plurality of spaces 34 configured to allow for flexure and/or bending of the base 22. Each space 34 may extend between a surface 36 of the base 22 and a corresponding compartment 30 of the base 22. In particular, each space 34 may extend to the corresponding compartment 30 from a surface 36 that comes into contact with a body 40 of the writing instrument 10 (discussed below) when the writing element 20 is in use. Including the plurality of spaces 34 configured to allow for flexure and/or bending of the base

22 allows for improved ergonomics of the writing instrument 10.

[0035] As shown in Figures 1-2, 4-7, 11-12, and 14, the writing instrument 10 is configured for use on the hand of the user. Particularly, the writing instrument 10 is configured to be worn on the hand of the user. To this end, the writing instrument 10 includes a body (also referred to herein as a "holding member") 40 configured to at least partially engage and/or surround at least a portion of the hand of the user so as to be supported by at least the portion of the hand of the user. Referring to Figures 1, 5, and 11, the body 40 may be in the form of and/or shaped as a glove configured to be worn on the hand of the user. As such, the body 40 may include an opening 42 configured to receive the hand of the user and one or more sheath 44 configured to receive fingers of the hand of the user once the hand of the user has been received by the opening 42 of the body 40. Particularly, as shown in Figures 1 and 11, it is contemplated that the body 40 may be in the form of and/or shaped as a mitten, in that the body 40 may include either one sheath 44 configured to receive the entire hand of the user or a first sheath 44 configured to receive a thumb of the hand of the user and a second sheath 44 configured to receive a remaining four fingers of the hand of the user. In this example, the writing instrument 10 is configured to include an individual writing element 20 corresponding to the entire hand of the user, as previously described. Alternatively, as shown in Figure 5, it is contemplated that the body 40 may be in the form of and/or shaped as a traditional glove, in that the body 40 may include five separate sheaths 44, and each of the five separate sheaths 44 are configured for receiving a corresponding finger of the hand of the user. In this example, the writing instrument 10 is configured to include an individual writing element 20 corresponding to a finger on the hand of the user, as previously described. Alternatively, as shown in Figures 7 and 14, it is contemplated that the body 40 may be in the form of and/or shaped as a band. In this example, the body 40 is configured to at least partially surround at least a portion of the hand of the user. In this example, the body 40 may be made of an elastically deformable material, such as rubber, silicone, and/or the like, so that the body 40 may be configured to fit hands of users of any size. Including the body 40 in the form of and/or shaped as a glove or a band allows for easy application of the writing instrument 10 to the hand of the user, comfort and ergonomics during use, reusability, and a reduction of mess and/or easy clean up after use of the writing instrument 10. Additionally, including the body 40 in the form of and/or shaped as a glove or a band simplifies and/or enhances utilization of the writing instrument 10 for a user that may not be able to sufficiently grasp the writing instrument 10.

[0036] As shown in Figures 1-3, 5-6, and 11, the writing element 20 and the body 40 of the writing instrument 10 are configured to be coupled together. Particularly, the body 40 is configured to engage the writing element 20.

To this end, referring to Figures 1-7, the body 40 includes a retainer 50 configured to engage the writing element 20. In the disclosed embodiment, the retainer 50 is included on an outer surface 46 of the body 40. It is contemplated that the term "outer" refers to a location forming or extending from an exterior surface of the body 40 and that the term "inner" refers to a location forming or extending from an interior surface of the body 40. For example, the writing instrument 10 is configured to be worn on the hand of the user such that the hand of the user is received within an inner portion of the body 40. As shown in Figures 1-8, the retainer 50 includes a flap (also may be referred to herein as a "layer") 52 extending from the outer surface 46 of the body 40. The flap 52 is configured to extend over the writing element 20 to engage the writing element 20. It is contemplated that the flap 52, and thus the retainer 50, may be integrally formed, sewn, glued, and/or the like to the outer surface 46 of the body 40.

[0037] The retainer 50 may be configured such that the writing element 20 is replaceable and/or removable from the body 40. Configuring the retainer 50 such that the writing element 20 is replaceable improves the reusability of the writing instrument 10. As shown in Figures 1, 3, 5, and 7-8, the flap 52 extends from the body 40 to define a cavity 54 configured to receive the writing element 20. Accordingly, the writing element 20 is configured to be inserted into and removed from the cavity 54. To this end, the flap 52 extends from the body 40 to define an opening 55 in communication with the cavity 54 and the opening 55 is configured for the writing element 20 to be inserted into and removed from the cavity 54. The retainer 50 further includes an aperture 56 in communication with the cavity 54. In particular, the aperture 56 is defined by the flap 52 of the retainer 50. The aperture 56 is configured to allow the writing tip 24 of the writing element 20 to project out of the retainer 50 when the writing element 20 is received by the retainer 50. As shown in Figures 1-3, in the example in which the writing instrument 10 is configured to include an individual writing element 20 corresponding to the entire hand of the user, a plurality of apertures 56 are defined by the flap 52 to accommodate the plurality of writing tips 24 that may be included by the writing element 20. Alternatively, as shown in Figures 5-6, in the example in which the writing instrument 10 is configured to include an individual writing element 20 corresponding to a finger on the hand of the user, the retainer 50 is included on a sheath 44 corresponding to a finger of the hand of the user, and thus one aperture is defined by each flap 52 of each retainer 50 to accommodate one writing tip 24.

[0038] As shown in Figures 1 and 7-8, the retainer 50 of the body 40 of the writing instrument 10 may include a fastening element 58a configured to secure the writing element 20 within the retainer 50 when the writing element 20 is received within the cavity 54 of the retainer 50. To this end, the fastening element 58a is configured to close the flap 52 against the body 40. Accordingly, the

fastening element 58a is included on the flap 52 of the retainer 50. Additionally, a complimentary fastening element 58b is included on the body 40 and configured to engage the fastening element 58a on the flap 52 of the retainer 50. The fastening element 58a of the retainer 50 and the complimentary fastening element 58b of the body 40 may be hook-and-loop fasteners. However, it is contemplated that other fasteners may be compatible with the writing instrument 10, such as magnetic fastening elements (see Figure 8), snap-fit fastening elements (not shown), and the like.

[0039] In use, the writing element 20 is configured to project away from an underside of the hand of the user. Accordingly, the writing tip 24 is configured to project away from the underside of the hand of the user. It is contemplated that the term "underside" as used herein may be understood to be a side of the hand of the user including the palm of the hand of the user and fingertips of the hand of the user. As such, referring to Figures 1, 5, 7, 11, and 14, the body 40 includes a writing section 60 configured to project away from the hand of the user when the writing instrument 10 is worn on the hand of the user. Particularly, the writing section 60 is configured to project away from the underside of the hand of the user when the writing instrument 10 is worn on the hand of the user. Additionally, the retainer 50 of the body 40 may be oriented in and/or aligned with the writing section 60 of the body 40. Accordingly, the writing element 20 may be engaged by the body 40 in the writing section 60 of the body 40.

[0040] As shown in Figures 1, 7, 11, and 14, in the example in which the writing instrument 10 is configured to include an individual writing element 20 corresponding to the entire hand of the user, the writing section 60 may be oriented across the palm of the hand of the user and/or across at least two fingers of the hand of the user. Including the writing section 60 and/or the writing element 20 to be oriented across the palm of the hand of the user and/or across at least two fingers of the hand of the user allows the user to write and/or draw without having to grasp the writing instrument 10. Moreover, including the writing section 60 and/or the writing element 20 to be oriented across the palm of the hand of the user and/or across at least two fingers of the hand of the user allows the user to have improved control when writing and/or drawing, in a scenario in which the user does not have sufficient dexterity to isolate and/or each finger of the hand of the user independent of the palm of the hand of the user. Alternatively, as shown in Figure 5, in the example in which the writing instrument 10 is configured to include an individual writing element 20 corresponding to a finger on the hand of the user, a writing section 60 is oriented across one or more finger and/or fingertip of the hand of the user. Including the writing section 60 and/or the writing element 20 to be oriented across one or more finger and/or fingertip on the hand of the user allows the user to write and/or draw without having to grasp the writing instrument 10. Moreover, including the

writing section 60 and/or the writing element 20 to be oriented across one or more finger and/or fingertip on the hand of the user allows the user to have more versatility when writing and/or drawing.

[0041] As shown in Figure 9, the body 40 of the writing instrument 10 may be configured to engage a lid 62. In this example, the lid 62 is configured to protect the writing tip 24 of the writing element 20 when the writing instrument 10 is not in use. Additionally or alternatively, the writing element 20 may be removed from the retainer 50 of the body 40 of the writing instrument 10 when the writing instrument 10 is not in use. Accordingly, as shown in Figure 10, the writing element 20 may be stored in a container 64 including the lid 62.

[0042] As shown in Figures 11-14, the writing tip 24 may be in the form of and/or shaped as a breakable cell extending from the base 22. In this example, the writing medium 26 may be stored directly within the breakable cell. In this example, referring to Figures 12-13, pressure exerted by the user on the writing tip 24 against the surface 100 causes the writing tip 24 to rupture and release the writing medium 26 onto the surface 100. To this end, in this example, the writing tip 24 includes a thin membrane configured to rupture and release the writing medium 26 due to pressure exerted by the user against the surface 100. Additionally, in this example, the base 22 may be in the form of and/or shaped as a sheet. As such, the base 22 may be configured to couple directly to the body 40 of the writing instrument 10, without inclusion of the retainer 50. Accordingly, the base 22 may include a fastening element 58a configured to couple the base 22 to the body 40. Additionally or alternatively, the body 40 may include the fastening element 58b configured to couple the base 22 to the body 40. In this example, the fastening element 58a, 58b may be a hook-and-loop fastener, an adhesive, and/or the like.

[0043] As shown in Figures 1, 5, and 8, for use of the writing instrument 10, the writing element 20 is inserted into the retainer 50 of the body 40. The flap 52 of the retainer is closed over the writing element 20 such that the one or more writing tip 24 of the writing element 20 protrudes through the one or more aperture 56 of the flap 52. The fastening element 58a of the retainer 50 is fastened to the complimentary fastening element 58b of the body 40 to secure the writing element 20 within the retainer 50. Alternatively, as shown in Figure 11, the base 22 of the writing element 20 may be fastened directly to the body 40 of the writing instrument 10. Once the writing element 20 is coupled to the body of the writing instrument 10, at least a portion of the hand of the user is then at least partially inserted into the body 40, and thus the writing instrument 10, such that the writing instrument 10 is supported by at least the portion of the hand of the user. Once the writing instrument 10 is supported by the hand of the user, the user may proceed to use the writing instrument to produce writing and/or drawing on the surface 100. To this end, as shown in Figures 4 and 12, the hand of the user is positioned such that the writing section

60, and thus the one or more writing tip 24 is facing the surface 100. The hand of the user is then placed flat against the surface 100 such that the one or more writing tip 24 is pressed against the surface 100. As the hand of the user is moved across the surface 100, the one or more writing tip 24 is also moved across and against the surface 100, transferring the writing medium 26 to the surface 100 and producing writing and/or drawing on the surface 100. In this manner, the writing instrument 10 is capable of allowing the user to write and/or draw without having to grasp the writing instrument 10, in a manner that improves reuse of the writing instrument 10 in a hassle-free and convenient manner.

[0044] Although the present disclosure herein has been described with reference to particular embodiments, it is to be understood that these embodiments are merely illustrative of the principles and applications of the present disclosure.

[0045] It is intended that the specification and examples be considered as exemplary only, with a true scope of the disclosure being indicated by the following claims.

[0046] Additionally, all of the disclosed features of an apparatus may be transposed, alone or in combination, to a method and vice versa.

Claims

1. A writing instrument (10) configured to be worn on a hand of a user, the writing instrument comprising:
 - a removable writing element (20) being configured to transfer a writing medium (26) to a surface (100);
 - a holding member (40) being configured to at least partially surround at least a portion of the hand of the user so as to be supported by at least the portion of the hand of the user, the holding member (40) including a retainer (50) being configured to engage the removable writing element (20); and
 - wherein the holding member (40) at least partially surrounding at least the portion of the hand of the user and engagement of the writing element (20) by the retainer (50) of the holding member (40) allows the user to use the writing instrument (10) without grasping the writing instrument.
2. The writing instrument (10) according to claim 1, wherein the retainer (50) of the holding member (40) defines a cavity (54), and the cavity (54) is configured to receive the writing element (20).
3. The writing instrument (10) according to claim 2, wherein the retainer (50) of the holding member (40) defines one or more aperture (56) in communication with the cavity (54) of the retainer (50), and the one

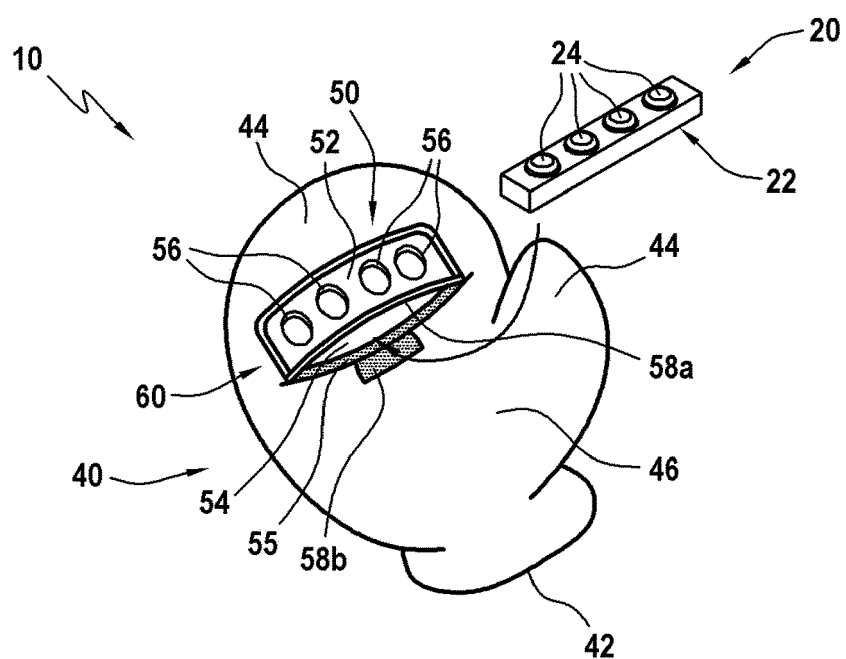
or more aperture (56) is configured to allow at least a portion of the writing element (20) to project out of the retainer (50).

4. The writing instrument (10) according to any of claims 1-3, wherein the retainer (50) of the holding member (40) includes a flap (52) configured to extend over the writing element (20). 5
5. The writing instrument (10) according to any of claims 1-4, wherein the retainer (50) of the holding member (40) includes a fastening element (58a) configured to secure the writing element (20) within the retainer (50). 10
6. The writing instrument (10) according to any of claims 1-5, wherein the holding member (40) includes a writing section (60) configured to project away from an underside of the hand of the user when the writing instrument (10) is worn on the hand of the user. 15 20
7. The writing instrument (10) according to claim 6, wherein the retainer (50) of the holding member (40) is aligned with the writing section (60) of the holding member (40). 25
8. The writing instrument (10) according to any of claims 1-7, wherein the holding member (40) is configured to engage a lid (62), and the lid (62) is configured to protect the writing element (20). 30
9. The writing instrument (10) according to any of claims 1-8, wherein the writing element (20) includes a base (22) and a writing tip (24) extending from the base (22). 35
10. The writing instrument (10) according to claim 9, wherein the writing element (20) includes a reservoir (28) configured to store and supply the writing medium (26) to the writing tip (24). 40
11. The writing instrument (10) according to claim 10, wherein the base (22) of the writing element (20) defines a compartment (30) configured to secure the reservoir (28) and the writing tip (24). 45
12. The writing instrument (10) according to any of claims 9-11, wherein a plurality of writing tips (24) extend from the base (22) of the writing element (20). 50
13. The writing instrument (10) according to any of claims 1-12, wherein the holding member (40) is in the form of a glove configured to be worn on the hand of the user. 55
14. A method of using a writing instrument comprising:

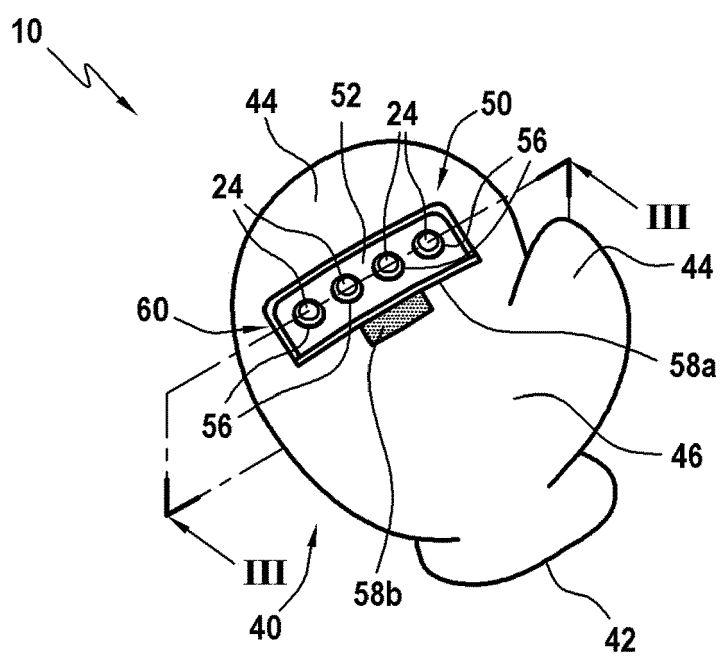
providing the writing instrument (10) according to any of claims 1-13; and
at least partially inserting at least a portion of a hand of a user into the holding member (40) of the writing instrument (10).

15. The method according to claim 14, comprising pressing an underside of the hand of the user against a writing surface (100).

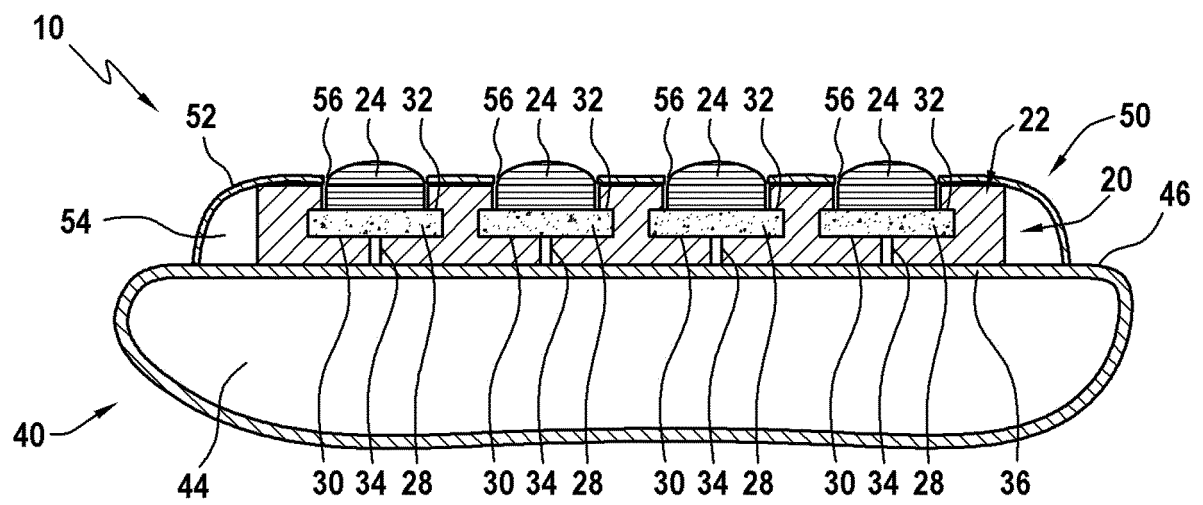
[Fig. 1]



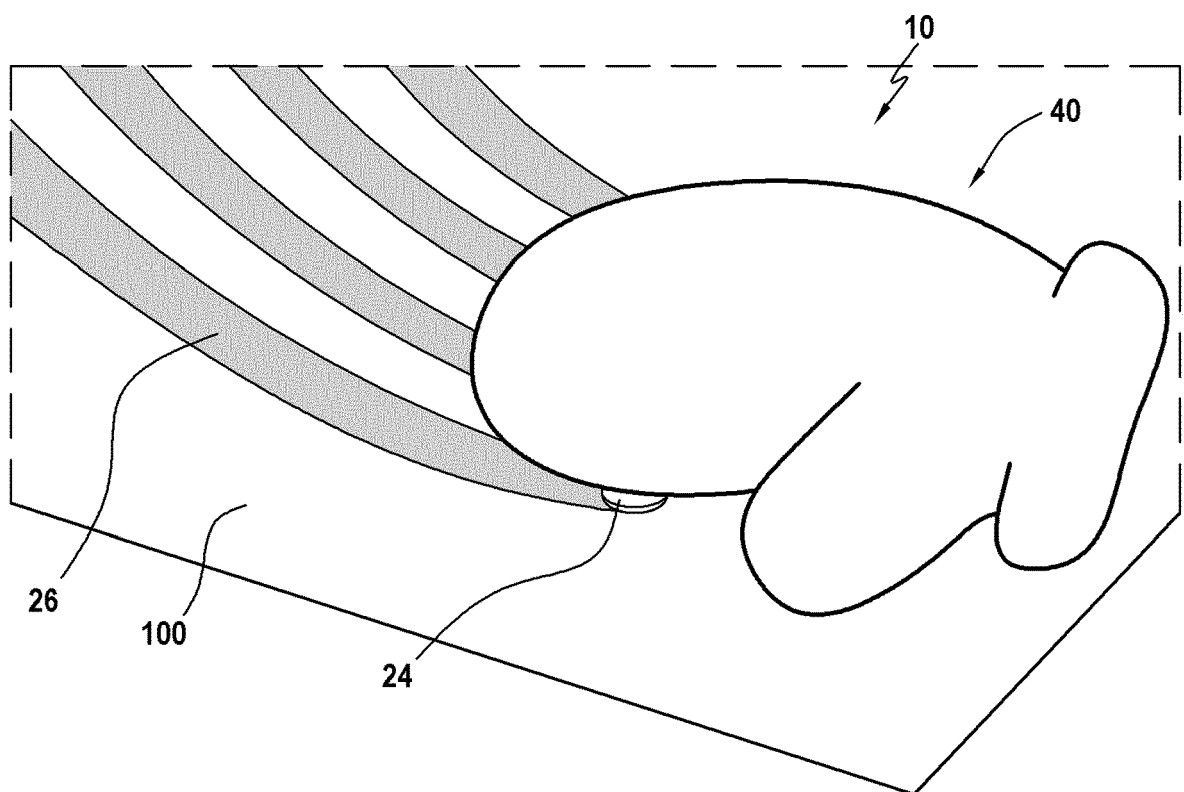
[Fig. 2]



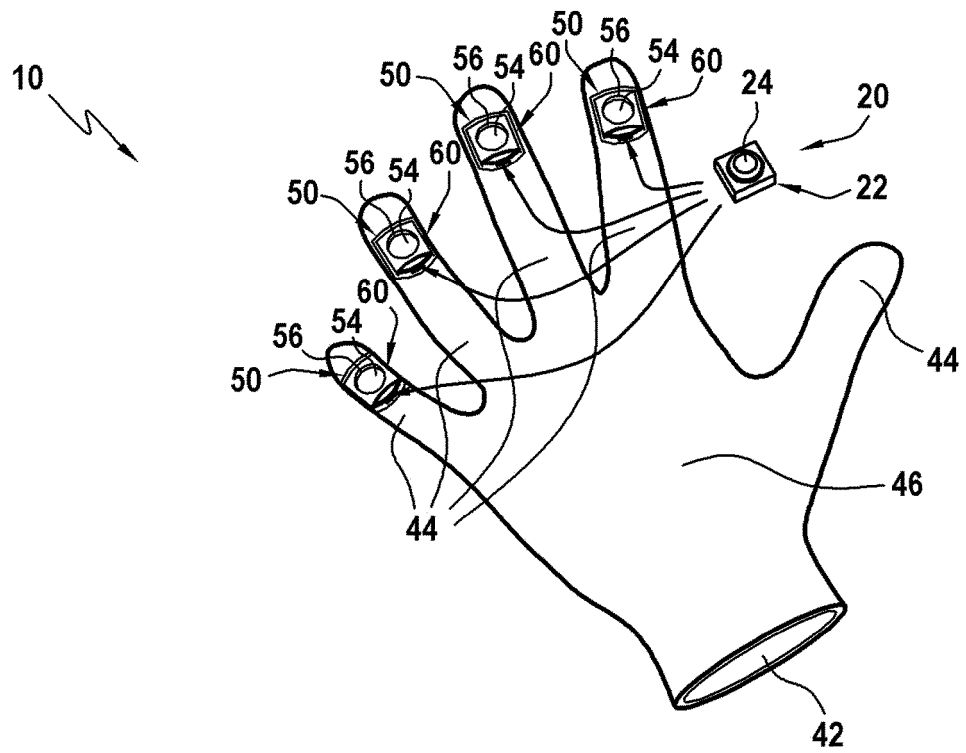
[Fig. 3]



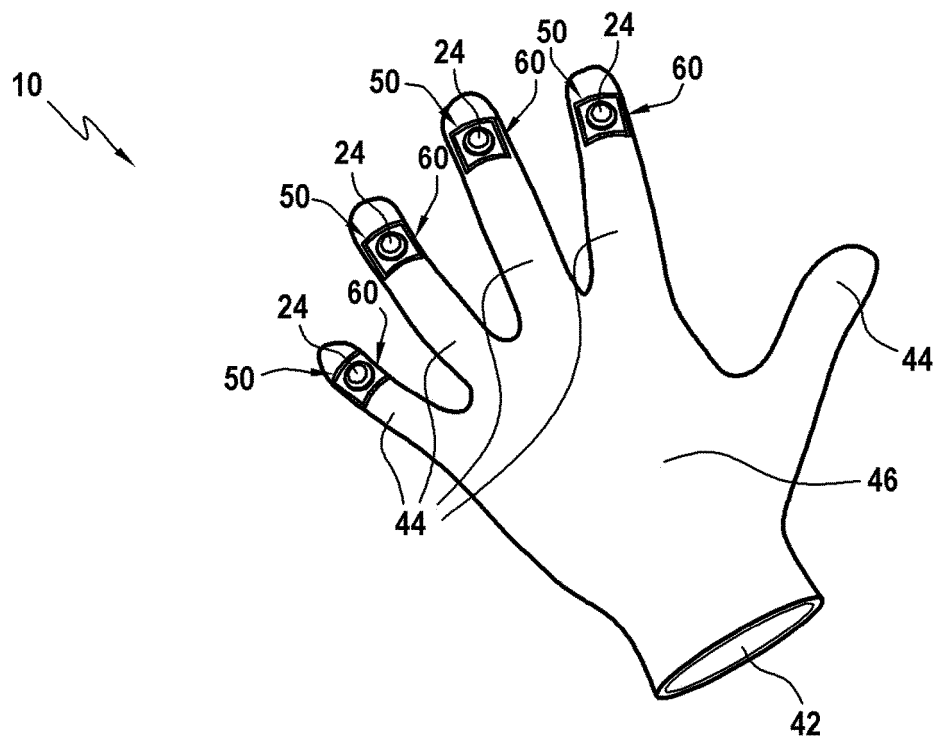
[Fig. 4]



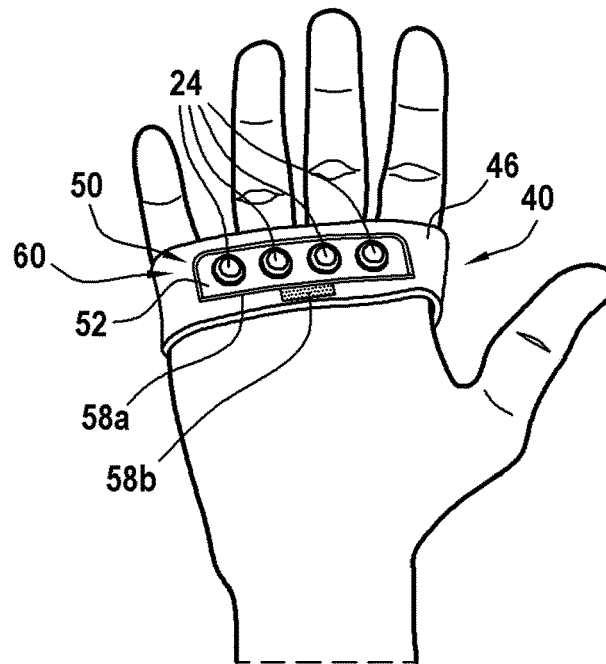
[Fig. 5]



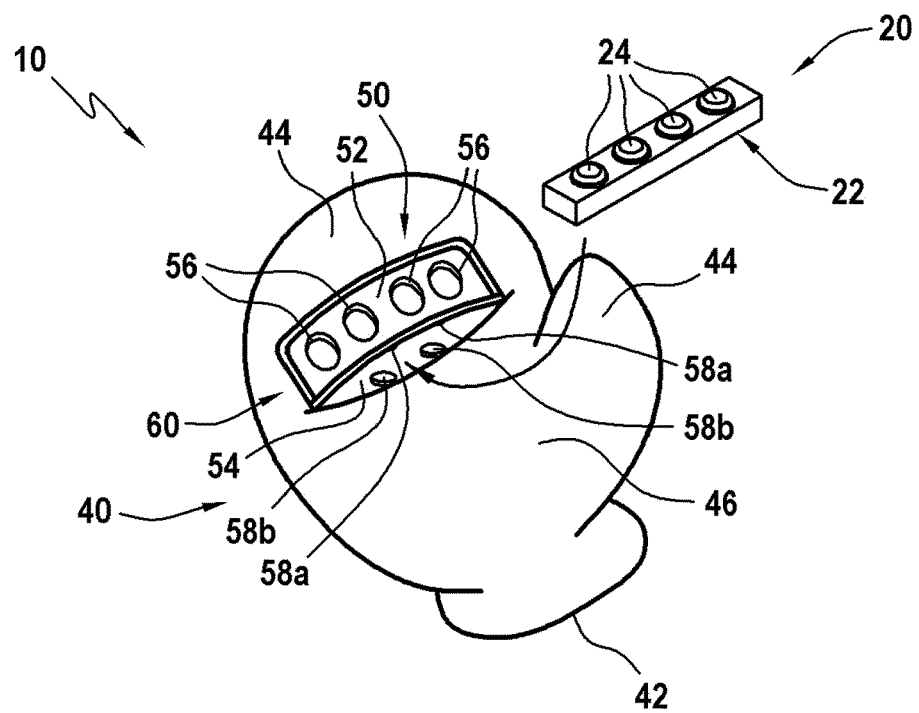
[Fig. 6]



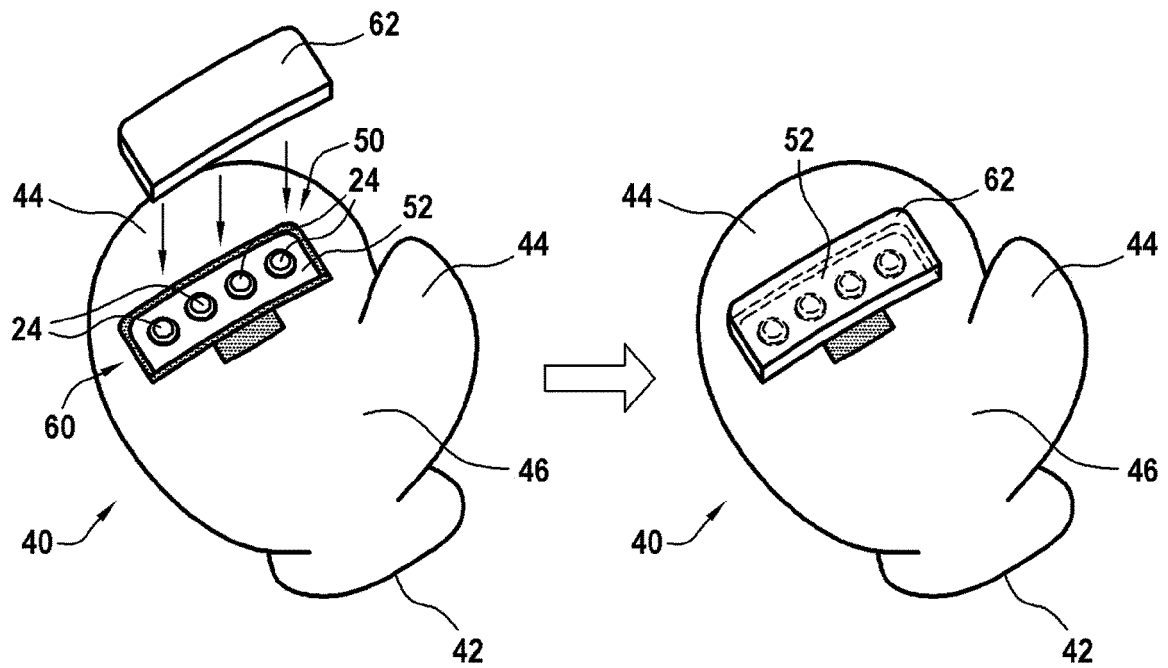
[Fig. 7]



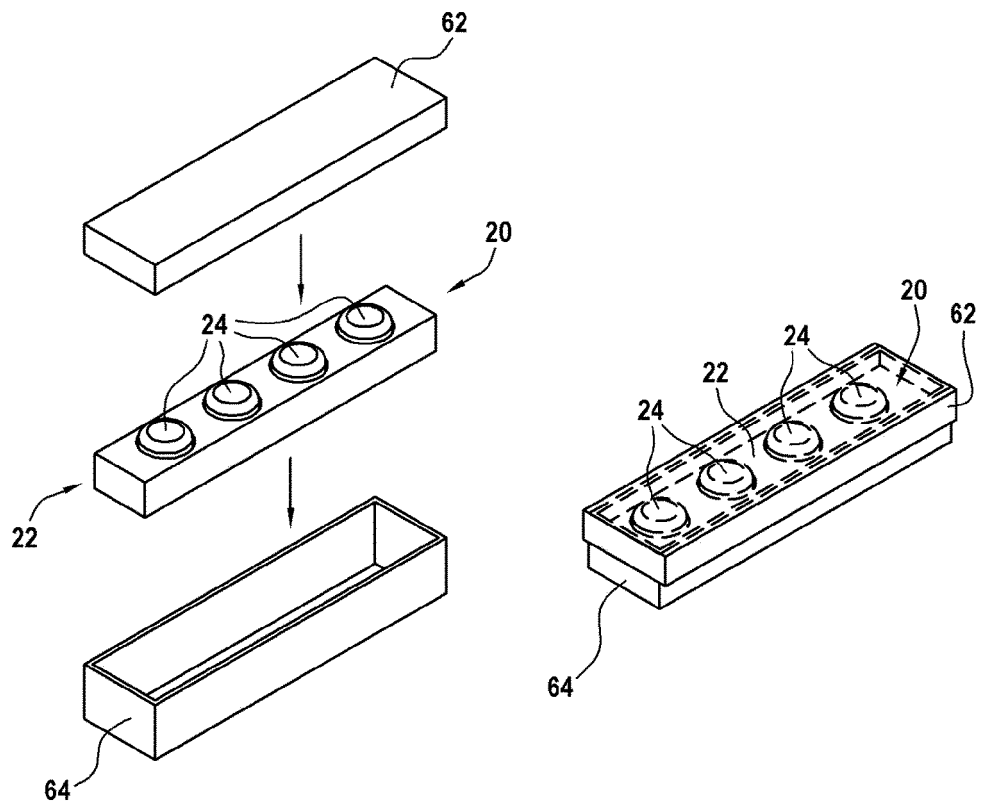
[Fig. 8]



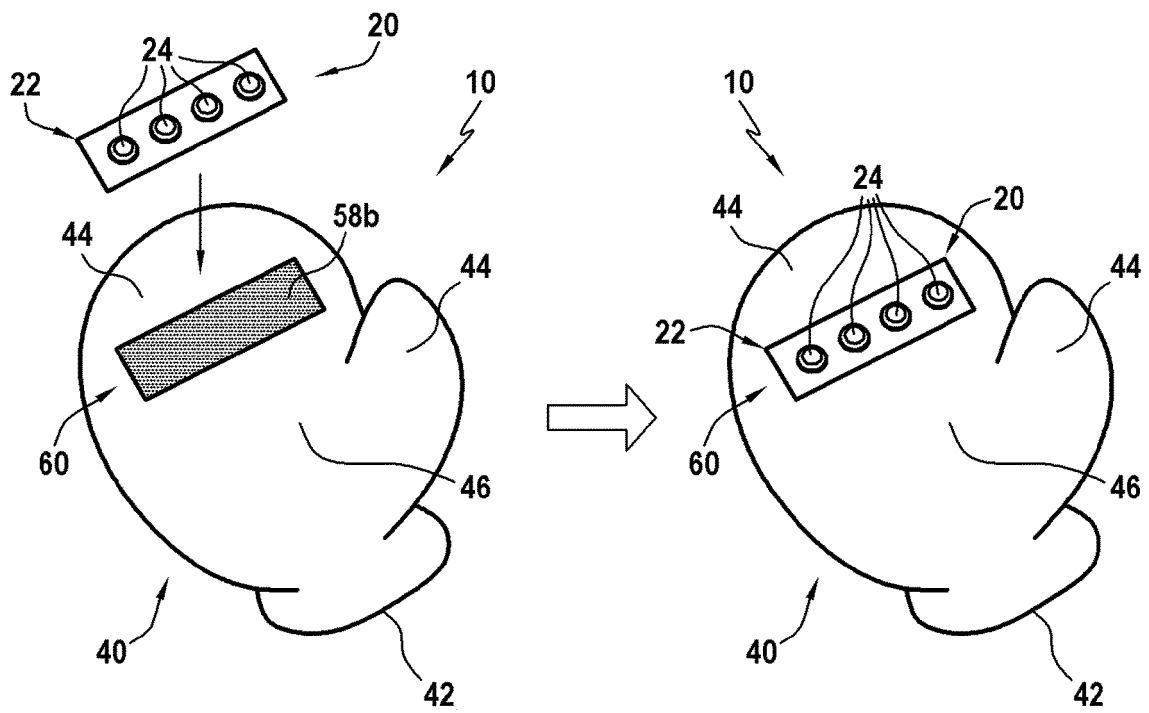
[Fig. 9]



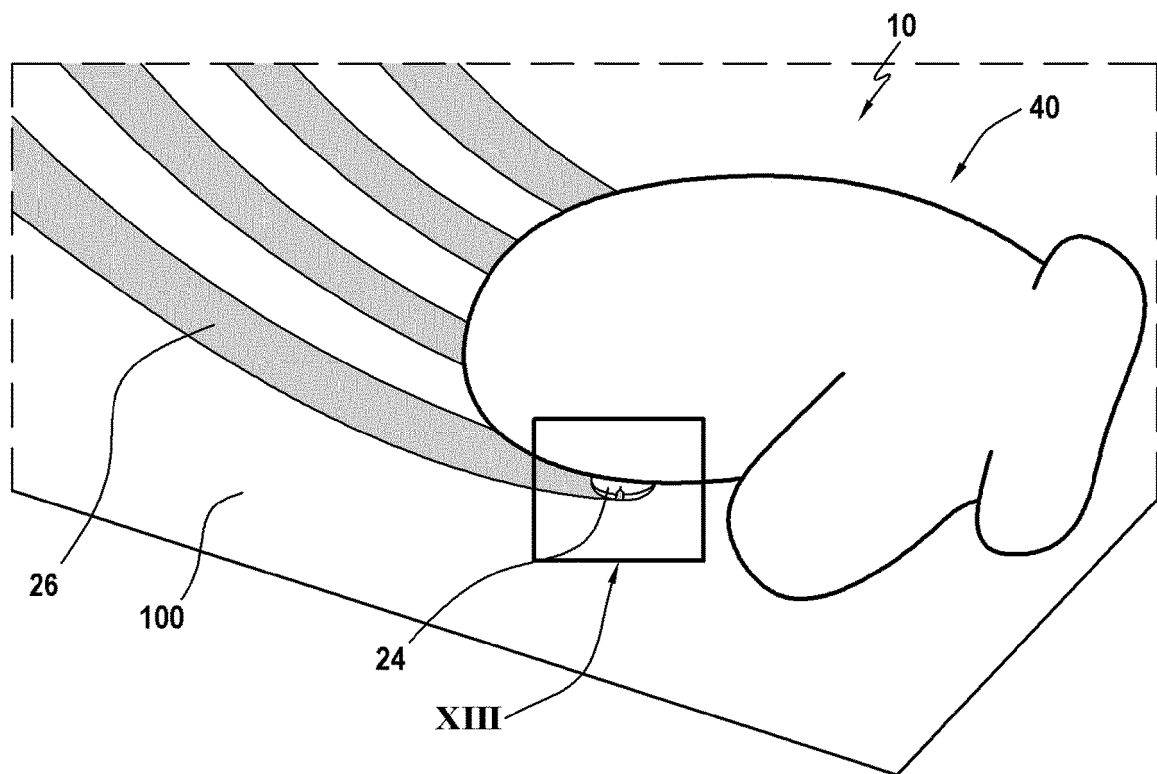
[Fig. 10]



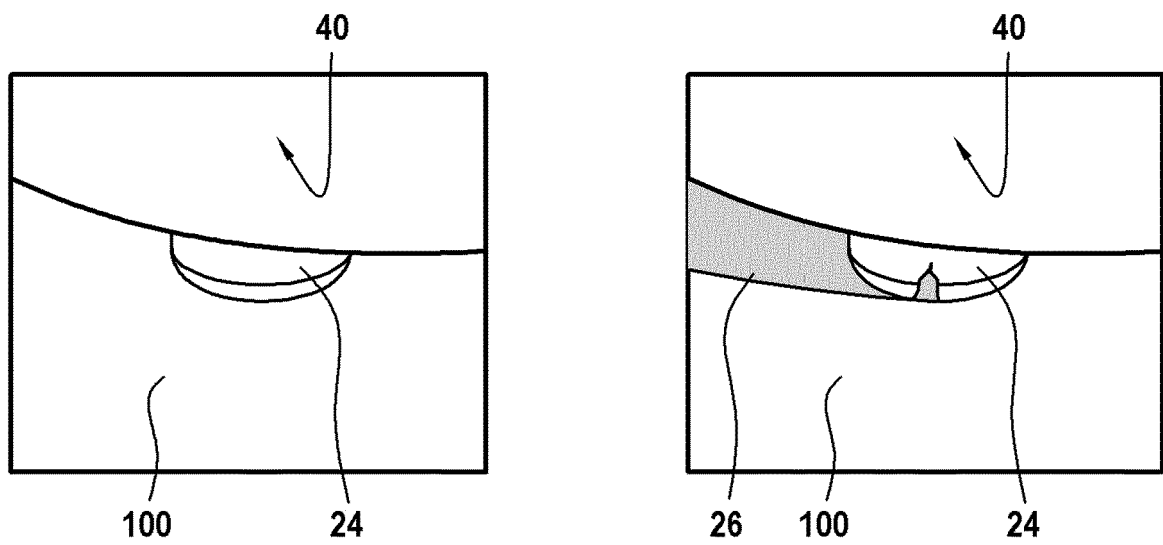
[Fig. 11]



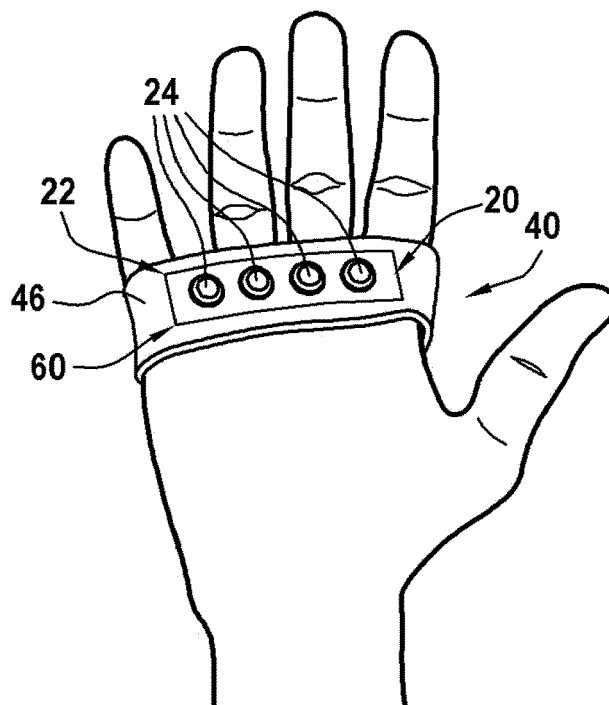
[Fig. 12]



[Fig. 13]



[Fig. 14]





EUROPEAN SEARCH REPORT

Application Number

EP 21 19 3447

5

10

15

20

25

30

35

40

45

50

55

1

EPO FORM 1503 03.82 (P04C01)

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	US 3 596 964 A (ZAZZARA JOSEPH R) 3 August 1971 (1971-08-03) * the whole document * -----	1-15	INV. B43K23/008 B43K23/012 B43L15/00
X	WO 01/98089 A1 (HADDAD GABY MILAD EL KHOURY [AE]) 27 December 2001 (2001-12-27) * page 2, line 9 - page 3, line 24; figures 1-3 * -----	1-15	
X	KR 2012 0002781 U (UNKNOWN) 24 April 2012 (2012-04-24) * the whole document * -----	1-15	
			TECHNICAL FIELDS SEARCHED (IPC)
			B43K B43L
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 24 January 2022	Examiner Kelliher, Cormac
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 21 19 3447

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

24-01-2022

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 3596964 A	03-08-1971	NONE	
WO 0198089 A1	27-12-2001	AU 6624901 A	02-01-2002
		WO 0198089 A1	27-12-2001
KR 20120002781 U	24-04-2012	NONE	