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(71) Applicant: **Markovitch, Gadi BenMark**
New York, NY 10023 (US)

(72) Inventor: **Markovitch, Gadi BenMark**
New York, NY 10023 (US)

(74) Representative: **Becker Kurig Straus**
Patentanwälte
Bavariastrasse 7
80336 München (DE)

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(54) **TISSUE DISPENSER FOR ENABLING TISSUE DISPENSION FOR PERSONS WITH RESTRICTED HAND MOVEMENT**

(57) The present invention provides a tissue dispensing system for dispensing a tissue with restricted hand movement, the system including a tissue holding element for storage of a tissue stack, an opening on a lower end of the tissue holding element through which one end of the tissue stack is disposed and an attachment element

for attaching the tissue holding element to a garment, wherein the one end of the tissue stack is adapted to be pulled from with the restricted hand movement from the tissue holding element to release a portion of the tissue stack.

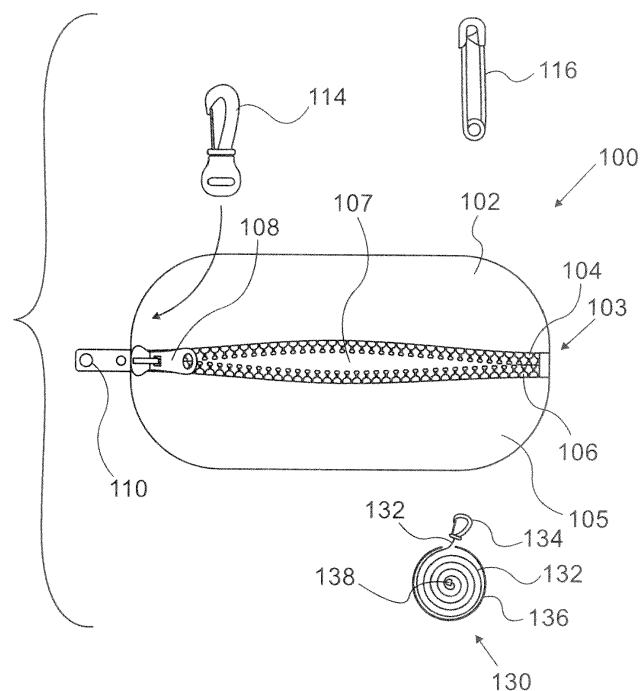


Fig. 1A

Description

FIELD OF THE INVENTION

[0001] The present invention relates generally to tissue dispensers and methods, and more specifically to methods and apparatus for tissue dispensing for persons with restricted hand movement.

BACKGROUND OF THE INVENTION

[0002] There are many situations in which a person has a runny nose or sneezes suddenly, in which his/her hand function is restricted or hand(s) are active in another function, such as driving, skiing, snowboarding, tool operating, holding a dog leash, holding a baby or holding shopping. In some cases, a person has limited hand function due to injury, disability, malformation or amputation.

[0003] In all the aforementioned situations, the person does not have two hands free to open a packet of tissues and/or to retrieve tissues therefrom. In these and other cases, a person may be wearing gloves or other protective clothing, which reduce or prevent fine finger movement.

[0004] Thus, there are many such situations, in which a person requires one or more tissues, but does not have freedom of movement of one or both hands. Additionally or alternatively, the person may be outdoors in extreme weather conditions, which require thick gloves and outdoor clothing.

[0005] There is thus a need for tissue dispensers to overcome these limitations. Some patent publications in the field include US4805242, which describes a pocket combination for holding a packet of dispensable paper tissue and for incorporation in a leather ski-glove or other like article of clothing, including a packet-receiving opening in the outer layer of the article, the edges of the opening holding the sides of the packet and an inner layer of material for supporting the bottom, major surface of the packet.

[0006] US5924136 discloses a hand mounted pocket for placement on a back of a hand. The hand mounted pocket comprises: a wrist band, at least one finger band, and a pocket panel. The wrist band is annular and is sized to engage a person's wrist. at least one finger band is annular and is sized to engage at least one finger of a person's hand. The wrist band and at least one finger band are joined by the pocket panel, wherein an upper portion of the pocket panel is attached to at least one finger band, and a lower portion of the pocket panel is attached to the wrist band. The pocket panel is sized to extend across a back portion of a hand, the pocket panel has at least one pocket therein.

[0007] US7735682 discloses a wipes dispenser that includes a generally tubular transparent housing adapted to be worn about a person's wrist with a plurality of wipes contained within the housing. The housing also has an opening through which the wipes are dispensed. In a

second embodiment, the opening may be covered with a hinged re-sealable cap that may cover or uncover the opening as needed.

[0008] There thus remains an unmet need to provide a tissue dispenser for use with limited hand or finger mobility.

SUMMARY OF THE INVENTION

[0009] It is an object of some aspects of the present invention to provide a tissue dispenser for use with restricted hand or finger movement.

[0010] In some embodiments of the present invention, improved methods and apparatus are provided for dispensing tissues for use by a thickly gloved hand.

[0011] In other embodiments of the present invention, a method and system is described for providing tissues in a dispenser for extreme weather conditions.

[0012] The present invention provides a tissue dispensing system for dispensing a tissue with restricted hand movement, the system including a tissue holding element for storage of a tissue stack, an opening on a lower end of the tissue holding element through which one end of the tissue stack is disposed and an attachment element for attaching the tissue holding element to a garment, wherein the one end of the tissue stack is adapted to be pulled from with the restricted hand movement from the tissue holding element to release a portion of the tissue stack.

[0013] When suddenly exposed to the cold, such as on leaving an indoor environment to the outdoors, people often have runny noses. The present invention provides a tissue dispenser for such situations. Moreover, the present invention provides a tissue dispenser for use when skiing. Wiping one's nose with a tissue is virtually impossible with ski gloves on. A person must remove his gloves, to extract a tissue from a packet, held inside a pocket, pouch or the like, sometimes while holding skis, which is both time consuming and cold. Some ski resorts offer wipe dispensers situated by the ski lifts, which helps when you are there, but not while riding a ski lift, or while skiing down a slope.

[0014] More generally, the present invention provides a portable paper tissue dispenser, which is easily handled while having thick gloves on. This is for use, for example, when skiing, snowboarding, snowshoeing. Additionally or alternatively, this is for use for a construction worker or a utility repairman, working outside in cold climate.

[0015] The present invention provides a zippered pouch, from which tissues can be removed by a thickly gloved hand. Alternatively, a pouch with a cap - either screwed on cap, or fit-on cap is provided.

[0016] The pouch is attached to a coat or jacket by means of an attaching element, such as a plastic hook or clip, safety pin or other similar attachment means. The pouch comprises a large orifice at a lower side thereof, through which paper tissue is easily retrieved. Tissue pa-

per, wipes or the like, are folded in a snake-like formation and stacked vertically to fit within the pouch, with one end of it reaching out through the hole or slit, and the other end pushing against the opposite end of the pouch.

[0017] The paper may either be perforated or unperforated. Handling with ski gloves on is pretty rough. The user is able to pull on the end of the paper tissue, pull out as much as they like, and just rip it off, leaving the loose end to hang out through the hole, or be tacked under a loop/hook, ready for its next use. When the tissue paper runs out, it is replaced with another stack of tissue paper

[0018] The plastic hook may also come with a retractable zip line, so that people could pull the pouches closer in front of them when they want to use them, or put them in their pockets when they are skiing. It is easy to move a pouch around with gloves on.

[0019] Additionally, according to an embodiment of the present invention, the tissue dispensing system further includes an attachment receiving element for attaching the attachment element to the tissue dispensing system.

[0020] Moreover, according to an embodiment of the present invention, the tissue holding element is a pouch.

[0021] Furthermore, according to an embodiment of the present invention, the pouch includes a zippered opening on an upper face thereof for introducing the tissue stack thereto.

[0022] Further, according to an embodiment of the present invention, the attachment element is selected from the group consisting of a hook, a safety pin, a spring coiled extender element, a clasp and combinations thereof.

[0023] Yet further, according to an embodiment of the present invention, the tissue dispensing system further includes a zipper protection flap.

[0024] Importantly, according to an embodiment of the present invention, the tissue dispensing system is adapted to hold 5-200 tissues.

[0025] Additionally, according to an embodiment of the present invention, the tissue dispensing system is adapted to hold 30-80 tissues.

[0026] In some cases, according to an embodiment of the present invention, the tissue dispensing system is adapted to hold 40-60 tissues.

[0027] Furthermore, according to an embodiment of the present invention, the tissue dispensing system is adapted to hold 5-200 wipes.

[0028] Further, according to an embodiment of the present invention, the tissue dispensing system is adapted to hold 30-80 wipes.

[0029] Yet further, according to an embodiment of the present invention, the tissue dispensing system is adapted to hold 40-60 wipes.

[0030] Additionally, according to an embodiment of the present invention, the tissue holding element is 8 to 30 cm long and 2-20 cm wide.

[0031] Moreover, according to an embodiment of the present invention, the restricted hand movement is due

to the hand being is a thick glove.

[0032] Importantly, according to an embodiment of the present invention, the system is suitable for use in extreme weather conditions.

5 [0033] Further importantly, according to an embodiment of the present invention, the system is suitable for use by a disabled person.

[0034] Additionally, according to an embodiment of the present invention, the system is suitable for use by a one-handed person.

10 [0035] Moreover, according to an embodiment of the present invention, the tissue holding element is constructed out of a fabric, a material, leather, suede, a plastic material, a polymeric material or combinations thereof.

15 [0036] Furthermore, according to an embodiment of the present invention, the garment is selected from a jacket, a coat, pants, an overall, a ski garment, a protective garment and combinations thereof.

20 [0037] Additionally, according to an embodiment of the present invention, the system is adapted to be introduced into a pocket of the garment.

25 [0038] The present invention will be more fully understood from the following detailed description of the preferred embodiments thereof, taken together with the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

30 [0039] The invention will now be described in connection with certain preferred embodiments with reference to the following illustrative figures so that it may be more fully understood.

35 [0040] With specific reference now to the figures in detail, it is stressed that the particulars shown are by way of example and for purposes of illustrative discussion of the preferred embodiments of the present invention only and are presented in the cause of providing what is believed to be the most useful and readily understood description of the principles and conceptual aspects of the invention. In this regard, no attempt is made to show structural details of the invention in more detail than is necessary for a fundamental understanding of the invention, the description taken with the drawings making apparent to those skilled in the art how the several forms of the invention may be embodied in practice.

45 [0041] In the drawings:

50 Fig. 1A is a simplified pictorial illustration showing a tissue dispensing system, in accordance with a preferred embodiment of the present invention;

Fig. 1 B is another simplified pictorial illustration showing a tissue dispensing system, in accordance with an embodiment of the present invention;

55 Fig. 2A is a simplified pictorial illustration showing a closed tissue dispensing system, in accordance with an embodiment of the present invention;

Fig. 2B is a simplified pictorial illustration showing an open tissue dispensing system, in accordance with an embodiment of the present invention;

Fig. 3A is a simplified expanded pictorial illustration showing an open tissue dispensing system, in accordance with an embodiment of the present invention; and

Fig. 3B is a simplified pictorial illustration showing a closed tissue dispensing system, in accordance with an embodiment of the present invention.

[0042] In all the figures similar reference numerals identify similar parts.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[0043] In the detailed description, numerous specific details are set forth in order to provide a thorough understanding of the invention. However, it will be understood by those skilled in the art that these are specific embodiments and that the present invention may be practiced also in different ways that embody the characterizing features of the invention as described and claimed herein.

[0044] The present invention provides a system and method for handling paper tissue with thick gloves on.

[0045] Reference is now made to Fig. 1A, which is a simplified pictorial illustration showing a tissue dispensing system 100 (also termed "dispenser" herein), in accordance with an embodiment of the present invention.

[0046] Tissue dispensing system 100 comprises a tissue holding element 102, such as a pouch, which has an upper face 105 and a lower face 107, on the upper face is a zipper 103, comprising two teathed sides 104, 106 and a pulling element 108 (other standard zipper elements not shown for the sake of simplicity). System 100 further comprises an attachment receiving element 110, to which an attachment element 114, such as a clasped hook 114, a safety pin 116, a spring coiled extender element 130 is received. The coiled (reeled) extender element comprises an attachment element 134, such as a hook or ring, an outer case 136, a spring mechanism 138, and a thread or wire 132 wound spirally around the spring mechanism. The coiled extender element is useful for attaching the tissue dispensing system, to enable pulling the dispenser from a pocket to outside a coat or jacket, or pulling it towards a user's face.

[0047] Reference is now made to Fig. 1B, which is another simplified pictorial illustration showing a tissue dispensing system (dispenser) 150, in accordance with an embodiment of the present invention. Dispenser 150 is constructed and configured to hold a tissue stack 120, with optional perforations 122 separating between tissues. The dispenser comprises an opening 112, typically on a lower end 152 (opposite to the hook on an upper end 154) through which a tissue stack (also called pack

herein) end 124 is disposed and dispensed.

[0048] Reference is now made to Fig. 2A, which is a simplified pictorial illustration showing a closed tissue dispensing system 200 (closed dispenser), in accordance with an embodiment of the present invention. The closed dispenser may have a zipper protection flap 204, which covers zipper 103. The closed dispenser may comprise a key-ring holder 214 or any other suitable attachment means, known in the art.

[0049] Turning to Fig. 2B, there is seen a simplified pictorial illustration showing an open tissue dispensing system 250, in accordance with an embodiment of the present invention. As can be seen in the figure, a person can introduce a finger 226 of a hand 220 into opening 112 (Fig. 1B). The dispenser comprises an inner hollow space 224 for containing the tissue pack or stack 120. Reference is now made to Fig. 2C, which is a simplified pictorial illustration showing a closed tissue dispensing system, in accordance with an embodiment of the present invention.

[0050] The dispensers of the present invention enable use for people, typically wearing thick gloves, having runny noses, when engaged in cold weather outdoor activities.

[0051] The dispensers of the present invention further enable tissue use, even when the person has limited fine finger movement.

[0052] The tissue dispensers of the present invention are constructed and configured to be attached and detached from to a piece of clothing, such as, but not limited to a jacket or pants, without forming an integral part of that piece of clothing.

[0053] The tissue dispensers of the present invention are constructed and configured to easily be refilled with new paper tissue. They are not placed on a hand garment and do not interfere with freedom of hand movement.

[0054] The tissue dispensers of the present invention enables a "tail end" of the paper tissue to be pulled through the opening, then torn, while the person has thick gloves on (not shown) the tail end of the tissue protrudes from the opening of the dispenser, so that it can conveniently be pulled on by a hand, even when that hand is covered with a thick glove.

[0055] Tissue holding element 102 (Fig. 1A), such as a pouch, may be constructed out of a fabric, a material, leather, suede, a plastic material, a polymeric material or combinations thereof. The pouch may be water-proofed. The pouch may be designed in various shapes, such as, but not limited to, oval, round, square, rectangular, oblong, cubic and the like.

[0056] The pouch may be provided in various sizes, colors, designs for different environments and users. There may be child and teenage smaller versions. According to some embodiments, the pouch length is 8-30 cm, 8-20 cm, 10-15 cm or 10-12 cm. The pouch width is 2-20 cm, 4-16 cm, 5-14 cm or 6-12 cm. The pouch is constructed to hold 5-200 tissues, 20-100 tissues, 30-80 tissues, or 40-60 tissues.

[0057] Additionally or alternatively, the pouch is constructed to hold 5-200 wipes, 20-100 wipes, 30-80 wipes, or 40-60 wipes.

[0058] The pouch may be designed for retrieval of wipes on one side and tissues on another side with two openings (not shown). These can be disposed conveniently on the pouch at opposite ends.

[0059] Reference is now made to Fig. 3A, which is a simplified expanded pictorial illustration showing an open tissue dispensing system 300, in accordance with an embodiment of the present invention. System 300 comprises an upper durable waterproof casing 302 and a lower durable waterproof casing 304. The casings may be constructed of plastic, rubber, leather, material or any other suitable material and combinations thereof. For example, the casing may be a fluorescent-colored plastic.

[0060] Fig. 3B shows a closed tissue dispensing system 350, in accordance with an embodiment of the present invention. Upper durable waterproof casing 302 comprises a large opening 308, through which one end 123 of tissue pack 122 is passed (see Fig. 3B). Casing 302 comprises a closing element 306, such as a screw thread or groove, which mates another closing element 310 on the lower casing. For example, closing element 306 may be a male screw thread and closing element 310 a female screw thread, or vice versa. Additionally or alternatively closing elements 306, 310 may be adapted to click-fit, snap-fit or close by some other method, known in the art.

[0061] Tissue pack 122 is introduced into Upper durable waterproof casing 302 and end 123 is brought through opening 308. Lower casing 304 is attached to the upper casing using the closing elements such that the tissue pack is protected from external elements, such as rain and snow.

[0062] Closed system 350 is inverted and is already connected via a connecting element 311 on the lower casing to attachment element 114. The attachment element is used to attach the closed system to a garment, such as a coat or onto a bag or backpack.

[0063] The references cited herein teach many principles that are applicable to the present invention. Therefore the full contents of these publications are incorporated by reference herein where appropriate for teachings of additional or alternative details, features and/or technical background.

[0064] It is to be understood that the invention is not limited in its application to the details set forth in the description contained herein or illustrated in the drawings. The invention is capable of other embodiments and of being practiced and carried out in various ways. Those skilled in the art will readily appreciate that various modifications and changes can be applied to the embodiments of the invention as hereinbefore described without departing from its scope, defined in and by the appended claims.

Claims

1. A tissue dispensing system for dispensing a tissue with restricted hand movement, the system comprising:
 - a. a tissue holding element for storage of a tissue stack;
 - b. an opening on a lower end of the tissue holding element through which one end of said tissue stack is disposed; and
 - c. an attachment element for attaching the tissue holding element to a garment,
 wherein said one end of said tissue stack is adapted to be pulled with the restricted hand movement from said tissue holding element to release a portion of said tissue stack.
2. A tissue dispensing system according to claim 1, further comprising an attachment receiving element for attaching said attachment element to said tissue dispensing system.
3. A tissue dispensing system according to claim 1, wherein said tissue holding element is a pouch.
4. A tissue dispensing system according to claim 1, wherein said pouch comprises a zippered opening on an upper face thereof for introducing said tissue stack thereto.
5. A tissue dispensing system according to claim 1, wherein said attachment element is selected from the group consisting of a hook, a safety pin, a spring coiled extender element, a clasp and combinations thereof.
6. A tissue dispensing system according to claim 1, further comprising a zipper protection flap.
7. A tissue dispensing system according to claim 1, adapted to hold 5-200 tissues.
8. A tissue dispensing system according to claim 1, adapted to hold 5-200 wipes.
9. A tissue dispensing system according to claim 1, wherein said tissue holding element is 8 to 30 cm long and 2-20 cm wide.
10. A tissue dispensing system according to claim 1, wherein said restricted hand movement is due to said hand being in a thick glove.
11. A tissue dispensing system according to claim 1, wherein said system is suitable for use in extreme weather conditions.

12. A tissue dispensing system according to claim 1,
wherein said system is suitable for use by a disabled
person.
13. A tissue dispensing system according to claim 1, 5
wherein said system is suitable for use by a one-
handed person.
14. A tissue dispensing system according to claim 1,
wherein said tissue holding element is constructed 10
out of a fabric, a material, leather, suede, a plastic
material, a polymeric material or combinations there-
of.
15. A tissue dispensing system according to claim 1, 15
wherein said garment is selected from a jacket, a
coat, pants, an overall, a ski garment, a protective
garment and combinations thereof.

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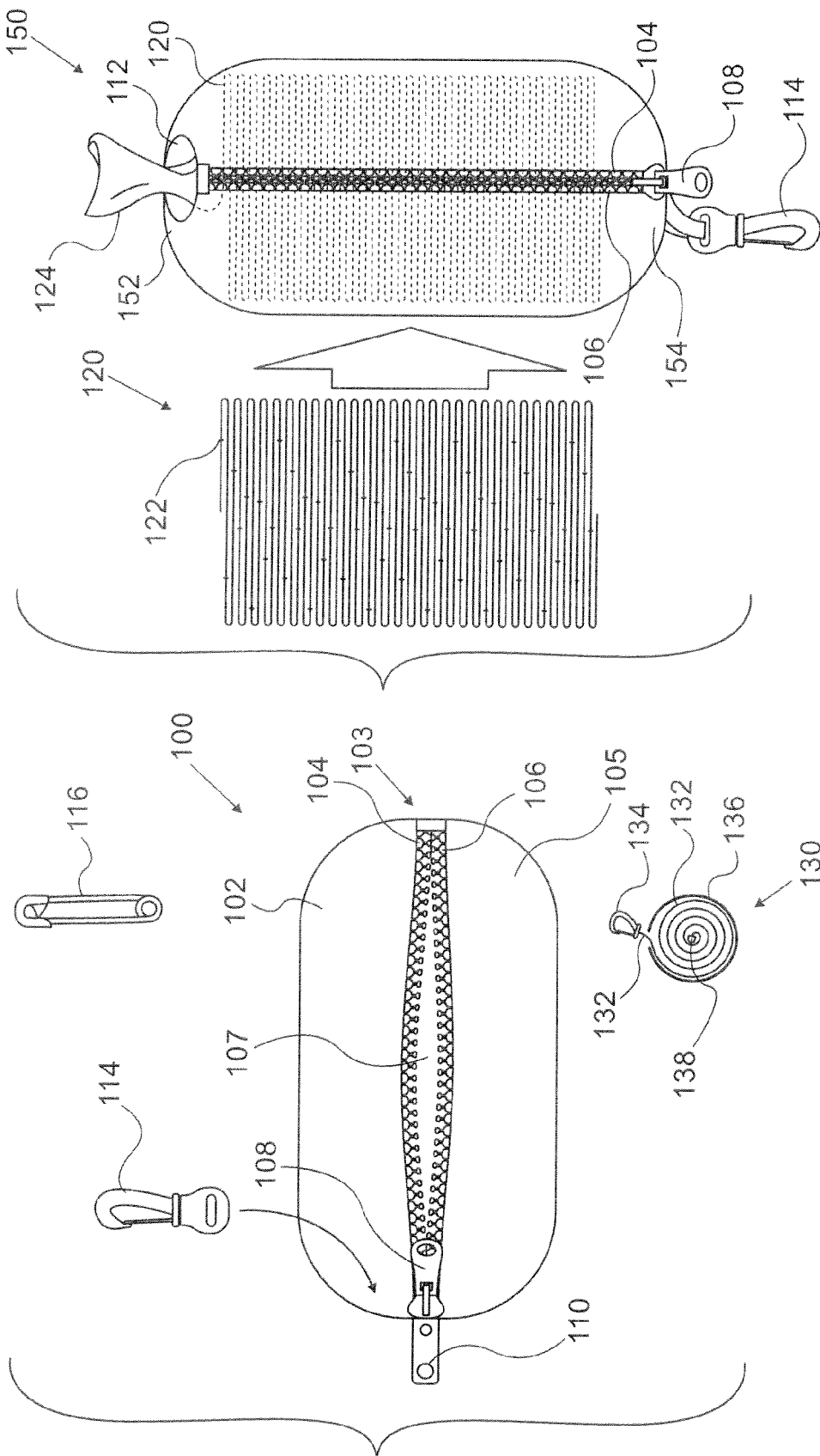
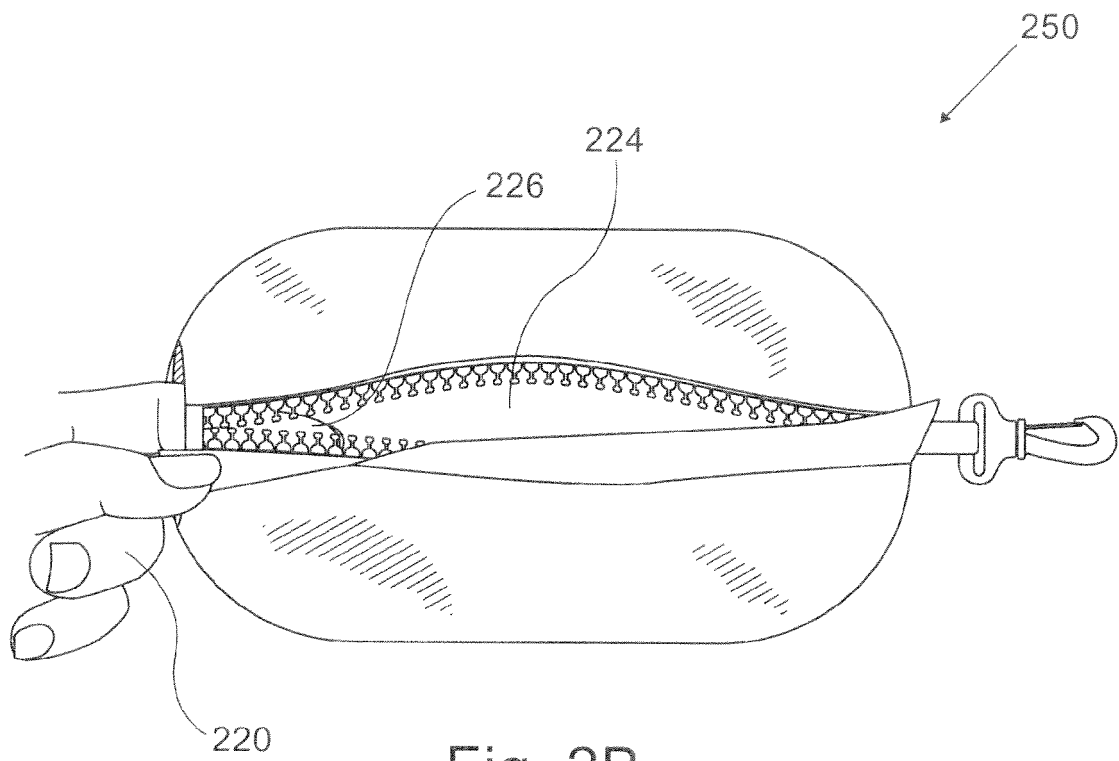
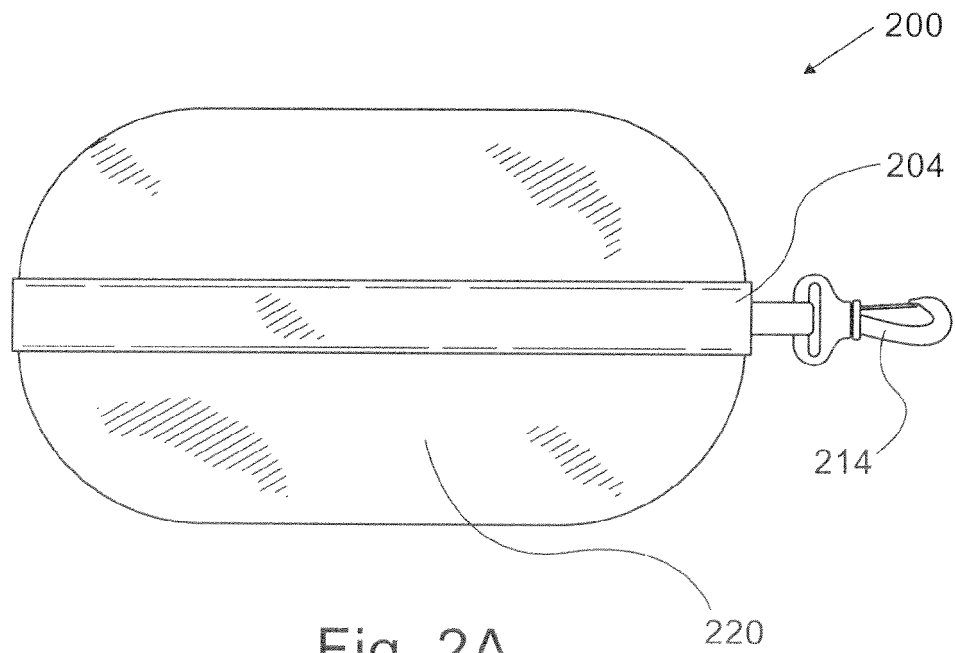
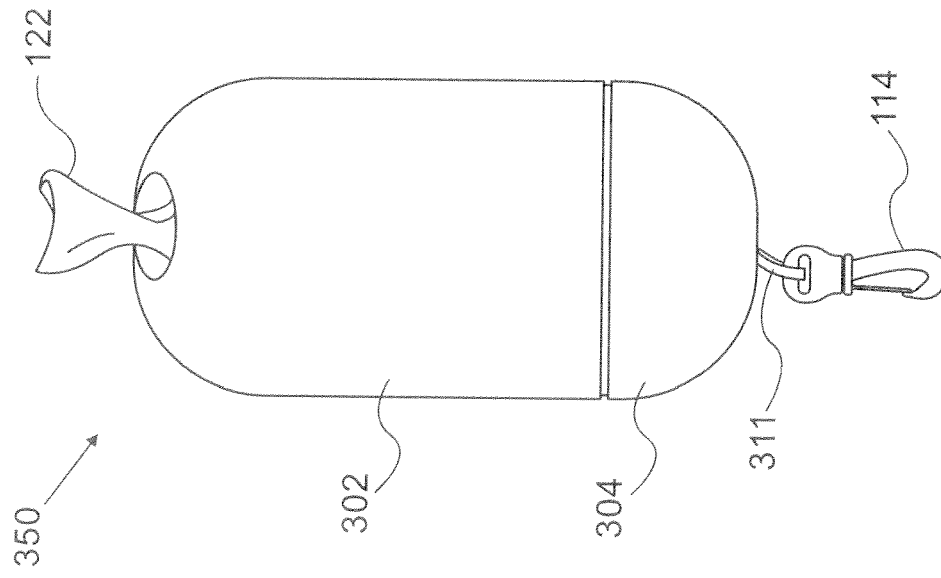
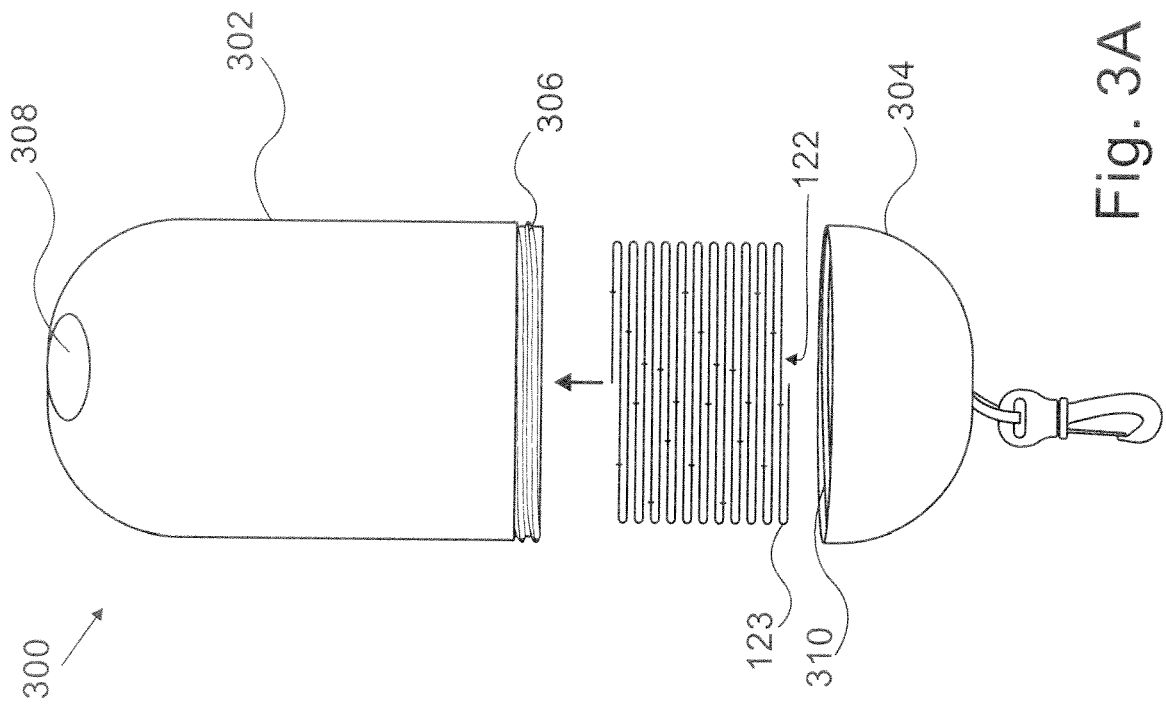


Fig. 1A

Fig. 1B







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 Application Number
 EP 15 18 4444

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| 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 | |

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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