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(54) **FOLDABLE, SELF-OPENING BAG**

FALTBARER, SELBSTÖFFNENDER BEUTEL

SAC PLIABLE À OUVERTURE AUTOMATIQUE

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(73) Proprietor: **Kloboucek, Jan**

**415 01 Teplice (CZ)**

(72) Inventor: **Kloboucek, Jan**

**415 01 Teplice (CZ)**

(74) Representative: **btb IP Bungartz Baltzer**

**Partnerschaft mbB**

**Patentanwälte**

**Im Mediapark 6A**

**50670 Köln (DE)**

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**EP-A2- 2 062 494 FR-A1- 2 936 687**

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## Description

**[0001]** The present invention relates generally to a foldable, self-opening bag, having an outer pocket and at least one first, pocket-like storage compartment which is arranged in the outer pocket and which is enclosed at least at the bottom and also in a lateral direction by a foldable and collapsible sheathing and which has an upper filling opening.

**[0002]** Foldable self-opening bags as mentioned above are commonly known to the skilled persons. The well-known foldable shopping bags have a bag body which can be folded in crosswise and lengthwise direction by multiple folds. One such shopping bag is known from the KR 20 150 058 765 A. Although the shopping bag can be easily folded like a classical paper or plastic bag, it has the disadvantage that it is not visually attractive, and that the sheathing, which is intended to hold the goods, is not protected when folded.

**[0003]** CN 204 682 796 U describes a foldable storage box with several compartments that open automatically when the box is folded. This storage box is complex to install and is not ideal for spontaneous transport purposes, e.g. for stowing and carrying purchases in the supermarket.

**[0004]** From the JP 2020 048 717 A2, in turn, a foldable bag is known, which is automatically opened by spring force after releasing a retention lock. However, this bag has the disadvantage that the cover, which provides the storage compartment for the goods after folding the bag, is not protected in an inner pocket when folded.

**[0005]** FR 2 936 687 A1 discloses a backpack which has two openings which are provided with a self-opening function via a resilient ring folded into an "8". After a fastening means is released, the spring flips open together with a wall portion of the backpack connected to it. This causes the backpack to straighten up.

**[0006]** A disadvantage of this 8-shaped folded spring is that the known bag will open automatically, but cannot change the volume significantly and cannot stand upright. A further drawback is the unstable spring, which hardly allows a defined shape of the erected bag with a stable edge.

**[0007]** EP 2 062 494 A2 discloses a bag with spring stands provided in the wall of the bag, which hold the bag in the unfolded position. With this solution, the folded bag must be set up manually by the user. To do this, the user grasps the holding loops in the folded bag, with which the bag is carried during use, and pulls the upper edge upwards relative to the bottom or presses the bottom downwards, causing the side wall to rise. This bag has the disadvantage that it must be unfolded manually. It is an object of the present invention to provide a foldable, self-opening bag, which, when folded, protects the storage compartments for the goods as well as possible, is optically attractive and can be easily folded in opening and closing direction. A further object of the invention is to create a foldable bag which has additional functions;

in particular, if the functional variety is as large as possible, it has additional compartments for receiving different goods.

**[0008]** According to the invention this object is achieved by a bag as disclosed in claim 1.

**[0009]** The outer pocket comprises at least two partial pocket parts which can be folded apart in an opening direction and folded towards each other in a closing direction and which are firmly or detachably connected to each other, wherein erecting means are provided, which are arranged and set up in such a way that when the two partial pocket parts of the outer pocket are folded apart in the opening direction, the first storage compartment is self-acting moved from a collapsed position into a ready-to-receive set-up position by raising the collapsible sheathing.

**[0010]** The bag provides a visually attractive bag that is particularly easy to store when folded and can be easily transformed into a position in which it can be used to hold goods. To transfer the folded bag into the position for the transport of goods, the outer pocket is opened, whereby the opening of the outer pocket releases the erecting means, which then automatically erect the first storage compartment, so that goods can be placed and transported in it. The outer pocket can be designed in such a way that, when folded, all internal parts of the bag are accommodated in the outer pocket and are thus protected against dirt, bacteria and moisture.

**[0011]** The material of the outer pocket may have further advantageous properties; in particular it may be water-repellent or waterproof. Padding may also be provided so that, if desired, the bag can also be used as a seat cushion when folded. If the bag is in the use position and especially fragile goods are transported in the bag, a padded outer pocket, which forms the bottom of the bag after unfolding, can prevent damage to the goods when the bag is placed on a hard surface by cushioning over the padding.

**[0012]** The bag is preferably designed in such a way that when folded, the outer pocket encapsulates all other areas of the bag. This can be achieved a outer pocket having two partial pocket parts and by folding over the two partial pocket parts, which are connected to each other by an elastic or hinged section. By folding the partial pockets all other functional components of the bag which are permanently or detachably connected to the inside of the partial pocket parts will be enclosed by the outer shell provided by the outer pocket. In this way all functional parts of the bag are effectively stowed and protected inside the shell.

**[0013]** The outer pocket consists of two partial pocket parts which have an identical shape and are joined flexible together in a hinge-like manner. The partial pocket parts can be made of foil, fabric or of a similar material. In this case they can also be made of a flat sheet of film or fabric without the need for an explicit side wall. The pocket parts folded on top of each other and can then be connected to each other by a zipper, especially a circum-

ferential zipper, one or more Velcro fasteners or also by means of a holding strap with knobs or other fastening means located on the side opposite the hinged sections. If the pocket parts are made of flat material, it is possible to make both pocket parts from a common cut of the film or fabric, for example in a shape like the digit "8", so that the connection area from one partial pocket part to the other partial pocket part can then form the hinge-like connection of the two pocket parts.

**[0014]** Alternatively, the pocket parts can also be made of a harder, dimensionally stable material. In this case, a cup-like design of the pocket parts is appropriate, which can then be connected to each other via separate joints. Alternatively, the partial pocket parts can also be made of plastic and manufactured together as an injection-moulded part wherein the partial pocket parts are connected to each other by a film hinge. The advantage of this design may be that the pocket parts, which form the bottom after the pocket has been opened, can offer comparatively high protection against impacts from below. The material used for these partial pocket parts may have the necessary elasticity to protect the goods from impact and, on the other hand, to prevent the partial pocket parts from breaking under impact.

**[0015]** To protect the contents of the bag against damage from shocks, even if the outer pocket is made of fabric or foil, the area of the partial pockets can be provided with an appropriate coating or reinforcement. In this case, elastic baffle plates that are glued or otherwise connected to the material of the outer pocket are a suitable solution.

**[0016]** The storage compartment is limited by a sheathing establishing an elastic wall, which is connected to the inside of the outer pocket in the lower area. The sheathing can be circular, oval or square. Once the outer pocket has been opened and the sheathing has been erected, this sheathing forms the first storage compartment into which goods can be inserted. The erecting means are arranged and designed in such a way that after opening of the outer pocket, when the pocket parts are unfolded, the wrapping of the first storage compartment is erected automatically.

**[0017]** The automatic erection of the wrapping is realized by means of erecting means in the form of spring means. For example, one or more helical coil springs can be incorporated into the material of the sheathing or attached to its inner side or to its outside. However, it is also possible to use small tunnels in the material of the casing, which run in the erecting direction, in which the spring means are then placed. Depending on the design and size of the sheathing, the spring means can also be formed by elastic wall sections, i.e. by the sheathing itself.

**[0018]** The bottom of the first storage compartment may be formed by the inner side of the outer pocket, in particular by the inner side of one of the two partial pockets. In this case the lower edge of the sheathing is firmly or detachably connected to the inner side. Alternatively, the first storage compartment may also have its own bot-

tom, so that it forms a separate pocket in its own right. In this case, the bottom of the first storage compartment may be releasably or permanently bonded to the inside of the outer pocket.

**[0019]** A detachable connection of the bottom of the first storage compartment with the outer pocket has the advantage that the first storage compartment can be removed as an independent pocket. Such a detachable connection can be made, among many other possibilities, for example by means of a Velcro fastening or a zipper. A firm connection can be realized by a seam. Of course, the first storage compartment can also be part of the outer pocket, i.e. be made in one piece with the outer pocket, for example by means of a weaving process.

**[0020]** In addition to the first storage compartment the bag according to the invention comprises a second storage compartment. This is identical in form and function to the first storage compartment. The first storage compartment is attached to one of the two partial pocket parts, while the second storage compartment is then arranged on the other partial pocket part. If the outer pocket is now opened in this configuration, both storage compartments will automatically lift up, as both are provided with their own erecting means.

**[0021]** Alternatively, of course, an active storage compartment and a passive storage compartment may also be provided, whereby the active storage compartment then is provided with an erecting means, while the passive storage compartment is connected with its upper edge to the upper edge of the active storage compartment via a mechanical connection. This will then cause the active storage compartment to pull up the passive storage compartment.

**[0022]** Of course, as an alternative to the embodiment described above, a configuration can be realized in which the erecting means is implemented as an independent component so that both the first storage compartment and the second storage compartment can be designed as passive storage compartment in the meaning as mentioned above. In this case they may be connected to the erecting means via the said connecting means.

**[0023]** Finally, the storage compartments, regardless of whether they are designed as passive or active storage compartments in the above-mentioned sense, can also be connected to one another centrally. This can be particularly advantageous if an additional side wall is attached to the sheathing of both storage compartments. This additional side wall can be fixed or detachably connected to the outer surface of the sheathings of the storage compartments. In the lower area, it can either have its own bottom segment, which in turn can be connected to the outer pocket, or it can be directly connected to the outer pocket via Velcro fastenings or zippers.

**[0024]** The embodiment with the side walls illustrated above allows a third storage compartment and a fourth storage compartment to be created with few resources. In particular in the case of cylindrical sheathing of the

first storage compartment and the second storage compartment, an essentially straight side wall which is laterally adjacent to the first storage compartment can define additional storage compartments between the sheathings and the inner side of the side walls on both sides of the bag, whereby the underside of these additional storage compartments should then of course be closed by the bottom as described above or by a connection of the side walls with the outer pocket. The side walls can also be used as advertising space if the bag according to the invention is to be given to customers as a promotional item.

**[0025]** In order that the bag according to the invention can be easily and conveniently carried, carrying sleeves can be provided which are connected to the bag. These may, for example, be two straps running from the upper edge of the sheathing of the first storage compartment to the upper edge of the sheathing of the second storage compartment, which can be gripped with a hand in the manner of a loop. In this case, the carrying loops are attached adjacent to the upper edge, so that the bag may be carried hanging down from the user's hand. Alternatively, or additionally, straps can of course be attached to the top and bottom of the bag in the manner of a backpack. In all cases, the retaining straps can be detachably connected to the respective components.

**[0026]** Furthermore, it can be advantageous if at least one of the above-mentioned straps also protrudes from the folded outer pocket in the form of a loop, so that the folded bag can be hold with this loop.

**[0027]** The drawings described herein are for illustration purposes only and are not intended to limit the scope of the present disclosure in any way.

**[0028]** Specific embodiments of the invention will now be described by way of example and with reference to the accompanying drawings, in which:

- Fig. 1 is a first embodiment of the invention in the folded position;
- Fig. 2 is a schematic view of the embodiment shown in Fig. 1 after unfolding;
- Fig. 3 is a schematic top view of the embodiment shown in Fig. 2;
- Fig. 4 is a single-part depiction of the first storage compartment of the embodiment as shown in Figure 2; and the
- Figures 5a to 5f show the embodiment depicted in Figures 1 to 3 in a side view during unfolding and the
- Figures 6a to 6f show the embodiment depicted in Figures 1 to 3 in a view from above in each case in a comparison with states as shown in Figures 5a to 5f.

**[0029]** Fig. 1 depicts a bag in the folded, closed state according to the invention. The outer pocket 1 consists here of two partial pocket parts which are folded over each other and are connected to each other in the lower

section via a fastener as fastening means 3. The pocket parts are here part of a common piece, which consists of an elastic fabric or a similar material. In the upper area, this fabric is folded over to form the two pocket parts lying on top of each other, so that an interior space is created in the manner of a shell, in which the other functional components of the bag according to the invention are located.

**[0030]** Two carrying loops protrude laterally from the closed outer pocket, through which the bag according to the invention can also be held in the closed state or hung on a hook.

**[0031]** In order to prepare the bag for later use, the user first loosens the fastening means 3, which are shown here as a snap fastener. Of course, all other types of fasteners, especially zippers or Velcro fasteners can also be considered. After the user has released the fastening means 3, the bag automatically straightens up, whereby the final state of this straightening or erection is shown in Figure 2 in a three-dimensional depiction.

**[0032]** In Figure 2 the opened outer pocket 1 is located at the lower area of the unfolded bag. The outer pocket 1 now serves as a bottom of the bag. The two partial parts of the outer pocket - still lying on top of each other in Figure 1 - are now next to each other, with a first storage compartment 4 and a second storage compartment 5 extending upwards from each of the two partial pocket parts. On the inner side of the right partial pocket part the first storage compartment 4 is arranged, which here has a bottom part at its lower edge (not visible in Figure 2). In the same way, the left partial pocket part is provided with the second storage compartment 5.

**[0033]** The first storage compartment 4 and the second storage compartment 5 are shown here in the form of cylindrical containers, whereby of course a more bag-like compartment will actually be present due to the textile or flexible nature of the sheathing material. In the material of the sheathing of the first storage compartment 4 and the second storage compartment 5, a helical spring is provided as an erecting means 6, winding around the inner volume of the first storage compartment 4 and the second storage compartment 5. The function of this spring is that after loosening the closure means 3 and opening the outer pocket 1 (see Fig. 1) the sheathings of the first storage compartment 4 and the second storage compartment 5 are automatically lifted. The exact function of this automatic setting up will be described in detail in connection with the Figures 5a to 5f and Figures 6a to 6f below.

**[0034]** The two sheathings of the first storage compartment 4 and the second storage compartment 5 each have a wall section in the middle, extending towards each other and connected to each other by a fixed or detachable connection. Side walls 9 are attached to the cylindrical sheathings in the front and rear sections. The side walls 9 define a closed chamber between the sheathings, which is closed in the lower area either by the outer pocket or by a connection of the side walls with the sheathings

or the outer pocket. The wall areas in the middle between the covers divide this chamber again into two additional storage compartments 7, 8. As can be best seen in Figure 3, an additional, third storage compartment 7 is thereby provided in the central front area, while a fourth storage compartment 8 is provided in the rear area of the bag of the invention.

**[0035]** The individual components, particularly those shown in Figures 2 and 3, may be connected to each other by means of fixed or detachable joints. In particular, the side walls 9 may be sewn to the envelopes of the first storage compartment 4 and the second storage compartment 5, so that a firm structure of the bag according to the invention is obtained. If, on the other hand, greater flexibility is required, the connections can also be detachable. This makes it possible, for example, to completely take a storage first storage compartment 4 or the second storage compartment 5 away from the bag in order to use it as a separate means of transport or storage. Such a removed, independent container is shown schematically in Figure 4.

**[0036]** As shown in Figure 2, the side walls 9 can only cover the front and rear areas of the bag. Of course, these side walls can also be designed as a circumferential wall so that they wrap around the complete pick-up areas 4, 5. In the first storage compartment 4 and the second storage compartment 5, in turn, further subdivision possibilities can be provided, which are either firmly sewn or can be created using detachable connections if necessary.

**[0037]** In Figures 5a to 5f and Figures 6a to 6f, the unfolding and erecting of the bag according to the invention is shown in detail and in individual steps. Figures 5a to 5f show the bag in a side view (schematized), while Figures 6a to 6f show the respective positions from Figures 5a to 5f in a top view. It can be seen that when folded, the outer pocket 1 forms a closed shell which is held together by the fastening means 3. In this closed shell the sheathings, which will later form the first storage compartment 4 and the second storage compartment 5, are stored together. The fastening means are solved in Figure 5b/6b. Then, driven by the spring force of the erecting means 6, the shell swings open in an opening direction R, whereby here only the second storage compartment 5 is shown in Figure 5c for better illustration of the function.

**[0038]** In the further course of the opening of the outer pocket 1, the opening means now push the covers further upwards in the erecting direction A, as shown in Figures 5d/6d and 5e/6e. Figures 5f/6f then show the final state in which the two sheathings were completely erected by the erecting means 6 in form of helical coil springs, so that the first storage compartment 4 and the second storage compartment 5 were built up. Not shown in the sequences of Figures 5 and 6 are the additional storage compartments formed by the third storage compartment 7 and the fourth storage compartment 8 and the carrying loop 2 for holding the bag of the invention.

#### Reference Numbers:

#### **[0039]**

- |    |   |                               |
|----|---|-------------------------------|
| 5  | 1 | Outer Pocket                  |
|    | 2 | Carrying loop                 |
|    | 3 | Fastening means               |
|    | 4 | First storage compartment     |
|    | 5 | Second storage compartment    |
| 10 | 6 | Erecting means                |
|    | 7 | Additional compartment        |
|    | 8 | Second additional compartment |
|    | 9 | Side wall                     |
| 15 | R | Opening direction             |
|    | A | Erecting direction            |

#### **Claims**

- 20
1. A foldable self-opening bag, having an outer pocket (1) and at least one first, pocket-like storage compartment (4) which is arranged in the outer pocket (1) and which is enclosed at least at the bottom and also laterally by a foldable and collapsible sheathing and which has an upper filling opening, wherein the outer pocket (1) comprises at least two partial pocket parts which can be folded apart in an opening direction (R) and folded towards each other in a closing direction and which are firmly or detachably connected to each other, wherein erecting means (6) are provided, which are arranged and set up in such a way that when the two partial pocket parts of the outer pocket (1) are folded apart in the opening direction (R), the first storage compartment (4) is self-acting moved from a collapsed position into a ready-to-receive set-up position by raising the collapsible sheathing, wherein the ends of at least one, preferably two, carrying loops (2) are arranged on the sides or the upper edges of the collapsible sheathing of the storage compartments (4 and/or 5), wherein the erecting means (6) are established by spring means, in particular spring means which are incorporated in the material of the collapsible sheathing or connected to the collapsible sheathing at least at the upper edge and supported with a lower end on the outer pocket (1), **characterized in that** at least one second, pocket-like receiving region (5) is provided in the outer pocket (1), which storage compartment (5) is moved automatically from a folded position into a ready-to-receive set-up position by setting up a collapsible sheathing of the second storage compartment (5) and a shape of the second storage compartment (5) is identical to the shape of the first storage compartment (4) and the first storage compartment (4) is attached to one of the two partial pocket parts, while the second storage compartment (5) is then arranged on the other partial pocket part.
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2. A foldable self-opening bag according to claim 1, wherein the first storage compartment (4) is established by the collapsible sheathing in the form of a round, oval or polygonal side wall connected to an inner side of the outer pocket (1) in the lower edge region. 5
3. A foldable self-opening bag according to claim 1 or 2, wherein the second storage compartment (5) is formed by a collapsible sheathing in form of a round, oval or polygonal side wall connected to an inner side of the outer pocket (1) in the lower edge area. 10
4. A foldable self-opening bag according to the preceding claim, wherein the collapsible sheathing of the first storage compartment (4) and/or of the second storage compartment (5) can be fixed in a folded position of the wrapping by fastening means on the inner wall of the outer pocket (1). 15
5. A foldable self-opening bag according to one of the preceding claims, wherein an additional side wall (9) is fastened on one side of the bag to the collapsible sheathing of the storage compartment (4) and to the collapsible sheathing of the storage compartment of the second storage compartment (5) to form an additional compartment, which side wall (9) is 20
- detachable or firmly attached to the inner wall of the outer pocket (1) or
  - or provided with a bottom adjacent to its lower edge, and wherein
- the side wall (9) is connected to the collapsible sheathing and/or to the outer pocket (1) in such a way that the side wall (9) forms with the collapsible sheathing and the bottom or the inner side of the outer pocket (1) the additional compartment. 25
6. A foldable self-opening bag according to claim 5, wherein on both sides of the first storage compartment (4) and the second storage compartment (5) side walls (9) are provided to form the additional compartment on a first side and a second additional compartment on the opposing side. 30
7. A foldable self-opening bag according to claim 5 or according to claim 6, wherein the side wall (9) is detachably connected to the envelope and/or the outer pocket (1), in particular by means of a zip fastener or a Velcro connection. 35
8. A foldable self-opening bag according to one of the preceding claims, wherein the collapsible sheathing of the first storage compartment (4) and the second storage compartment (5) has a bottom to form partial bags closed at the sides and at the bottom, wherein the first storage compartment (4) and the second 40

storage compartment (5) are loosely inserted into storage compartments of the outer pocket (1) or are detachably connected to the inner side or the edge of the outer pocket (1).

9. A foldable self-opening bag according to one of the preceding claims, wherein the spring means are formed by a coil spring wound around at least one of the first storage compartment (4) or the second storage compartment (5). 45
10. A foldable self-opening bag according to one of the preceding claims, wherein in the folded position of the outer pocket (1) in which the collapsed sheathing is located between on the opposing inner sides of the outer pocket (1), the folded outer pocket (1) is closable by means of a closure formed in particular by a snap fastener, a Velcro fastener, a closure tab which can be attached to the opposite part of the outer bag, or by a zip fastener. 50
11. A foldable self-opening bag according to claim 10, wherein a carrying loop (2) is arranged on both collapsible sheathings of the first storage compartment (4) and the second storage compartment (5), which are arranged and designed in such a way that, when the outer pocket (1) is unfolded, they can be placed one on top of the other to form a handle which can be gripped with at least one hand of a user. 55
12. A foldable self-opening bag according to one of the preceding claims, wherein the outer pocket (1) and the collapsible sheathings are made of a water-repellent or waterproof material, in particular fabric or plastic and/or wherein the collapsible sheathings of the first storage compartment (4) and the second storage compartment (5) or the side walls (9) are made of a thermally insulating material.

#### Patentansprüche

1. Faltbarer, selbstöffnender Beutel mit einer Außentasche (1) und mindestens einem in der Außentasche (1) angeordneten ersten, taschenartigen Staufach (4), das zumindest bodenseitig sowie seitlich von einer falt- und klappbaren Hülle umschlossen ist und das eine obere Einfüllöffnung aufweist, wobei die Außentasche (1) mindestens zwei in einer Öffnungsrichtung (R) auseinander- und in einer Schließrichtung gegeneinander faltbare Teiltaschenteile aufweist, die fest oder lösbar miteinander verbunden sind, wobei Aufrichtmittel (6) vorgesehen sind, die so angeordnet und eingerichtet sind, dass beim Auseinanderfallen der beiden Teiltaschenteile der Außentasche (1) in Öffnungsrichtung (R) das erste Staufach (4) durch Aufrichten der faltbaren Hülle selbsttätig aus einer zusammengefalteten Stel-

- lung in eine aufnahmebereite Aufstellposition bewegt wird, wobei die Enden von mindestens einer, vorzugsweise zwei, Trageschlaufen (2) an den Seiten oder den oberen Rändern der faltbaren Hülle der Staufächer (4 und/oder 5) angeordnet sind, wobei die Aufrichtmittel (6) durch Federmittel, insbesondere Federmittel, die in das Material der faltbaren Hülle integriert sind oder zumindest am oberen Rand mit der faltbaren Hülle verbunden sind und sich mit einem unteren Ende an der Außentasche (1) abstützen, festgelegt sind, **dadurch gekennzeichnet, dass** in der Außentasche (1) mindestens ein zweiter, taschenartiger Aufnahmebereich (5) vorgesehen ist, welches Staufach (5) durch Aufstellen einer faltbaren Hülle des zweiten Staufaches (5) automatisch aus einer gefalteten Position in eine aufnahmebereite Aufstellposition bewegt wird und eine Form des zweiten Staufaches (5) mit der Form des ersten Staufaches (4) identisch ist und das erste Staufach (4) an einem der beiden Teiltaschenteile befestigt ist, während das zweite Staufach (5) dann am anderen Teiltaschenteil angeordnet ist.
2. Faltbarer, selbstöffnender Beutel nach Anspruch 1, wobei das erste Staufach (4) durch die faltbare Hülle in Form einer runden, ovalen oder mehreckigen Seitenwand gebildet wird, die mit einer Innenseite der Außentasche (1) im unteren Randbereich verbunden ist.
  3. Faltbarer selbstöffnender Beutel nach Anspruch 1 oder 2, bei dem das zweite Staufach (5) durch eine faltbare Hülle in Form einer runden, ovalen oder mehreckigen Seitenwand gebildet wird, die mit einer Innenseite der Außentasche (1) im unteren Randbereich verbunden ist.
  4. Faltbarer selbstöffnender Beutel nach dem vorhergehenden Anspruch, wobei die faltbare Umhüllung des ersten Staufachs (4) und/oder des zweiten Staufachs (5) in einer gefalteten Position der Umhüllung durch Befestigungsmittel an der Innenwand der Außentasche (1) fixiert werden kann.
  5. Faltbarer selbstöffnender Beutel nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** an einer Seite des Beutels an der faltbaren Hülle des Staufachs (4) und an der faltbaren Hülle des Staufachs des zweiten Staufachs (5) eine zusätzliche Seitenwand (9) zur Bildung eines zusätzlichen Fachs befestigt ist, welche Seitenwand (9)
    - abnehmbar oder fest mit der Innenwand der Außentasche (1) verbunden ist oder
    - abnehmbar oder fest mit der Innenwand der Außentasche (1) verbunden oder mit einem an ihre Unterkante angrenzenden Boden versehen
- ist, und wobei
- die Seitenwand (9) mit der faltbaren Hülle und/oder mit der Außentasche (1) derart verbunden ist, dass die Seitenwand (9) mit der faltbaren Hülle und dem Boden oder der Innenseite der Außentasche (1) das zusätzliche Fach bildet.
  6. Faltbarer selbstöffnender Beutel nach Anspruch 5, wobei zur Bildung des zusätzlichen Fachs auf einer ersten Seite und eines zweiten zusätzlichen Fachs auf der gegenüberliegenden Seite auf beiden Seiten des ersten Staufachs (4) und des zweiten Staufachs (5) Seitenwände (9) vorgesehen sind.
  7. Faltbarer selbstöffnender Beutel nach Anspruch 5 oder nach Anspruch 6, wobei die Seitenwand (9) mit dem Umschlag und/oder der Außentasche (1) lösbar verbunden ist, insbesondere mittels eines Reißverschlusses oder einer Klettverbindung.
  8. Faltbarer selbstöffnender Beutel nach einem der vorhergehenden Ansprüche, wobei die faltbare Hülle des ersten Staufachs (4) und des zweiten Staufachs (5) einen Boden zur Bildung von seitlich und unten geschlossenen Teilbeuteln aufweist, wobei das erste Staufach (4) und das zweite Staufach (5) lose in Staufächer der Außentasche (1) eingesetzt oder mit der Innenseite oder dem Rand der Außentasche (1) lösbar verbunden sind.
  9. Faltbarer selbstöffnender Beutel nach einem der vorhergehenden Ansprüche, wobei die Federmittel durch eine um mindestens eines der ersten Staufächer (4) oder das zweite Staufach (5) gewickelte Schraubenfeder gebildet sind.
  10. Faltbarer selbstöffnender Beutel nach einem der vorhergehenden Ansprüche, wobei in der gefalteten Position der Außentasche (1), in der die faltbare Hülle zwischen den gegenüberliegenden Innenseiten der Außentasche (1) liegt, die gefaltete Außentasche (1) mittels eines Verschlusses verschließbar ist, der insbesondere durch einen Schnappverschluss, einen Klettverschluss, eine am gegenüberliegenden Teil der Außentasche befestigbare Verschlusslasche oder durch einen Reißverschluss gebildet ist.
  11. Faltbarer selbstöffnender Beutel nach Anspruch 10, **dadurch gekennzeichnet, dass** an den beiden faltbaren Hüllen des ersten Staufachs (4) und des zweiten Staufachs (5) eine Trageschlaufe (2) angeordnet ist, die so angeordnet und ausgebildet sind, dass sie bei aufgeklappter Außentasche (1) zu einem mit mindestens einer Hand eines Benutzers erfassbaren Griff übereinandergelegt werden können.

12. Faltbarer selbstöffnender Beutel nach einem der vorhergehenden Ansprüche, wobei die Außentasche (1) und die faltbaren Hüllen aus einem wasserabweisenden oder wasserdichten Material, insbesondere Stoff oder Kunststoff, bestehen und/oder die faltbaren Hüllen des ersten Staufachs (4) und des zweiten Staufachs (5) oder die Seitenwände (9) aus einem wärmeisolierenden Material bestehen.

### Revendications

1. Sac pliable à ouverture automatique, comportant une poche extérieure (1) et au moins un premier compartiment de dépôt en forme de poche (4) qui est disposé dans la poche extérieure (1) et qui est entouré au moins au fond et aussi latéralement par une enveloppe pliable et repliable et qui présente une ouverture de remplissage supérieure, dans lequel la poche extérieure (1) comprend au moins deux parties de poche partielles qui peuvent être écartées dans un sens d'ouverture (R) et pliées l'une vers l'autre dans un sens de fermeture et qui sont reliées l'une à l'autre de manière ferme ou détachable, dans lequel le sac comprend des moyens de levage (6), qui sont disposés et ensemble de manière à ce que, lorsque les deux parties partielles de la poche extérieure (1) sont pliées dans la direction d'ouverture (R), le premier compartiment de dépôt (4) soit automatiquement déplacé d'une position repliée à une position prête à recevoir en soulevant la gaine repliable, dans laquelle les extrémités d'au moins une, de préférence deux, sangles de transport (2) sont disposées sur les côtés ou les bords supérieurs de la gaine pliable des compartiments de dépôt (4 et/ou 5), dans laquelle les moyens de levage (6) étant établis par des ressorts, en particulier des ressorts incorporés dans le matériau de la gaine repliable ou reliés à la gaine repliable au moins au niveau du bord supérieur et soutenus par une extrémité inférieure sur la poche extérieure (1), **caractérisés en ce qu'**au moins une deuxième zone de réception en forme de poche (5) est prévue dans la poche extérieure (1), lequel compartiment de dépôt (5) est déplacé automatiquement d'une position pliée à une position prête à recevoir par l'ensemble d'une gaine pliable du second compartiment de dépôt (5) et une forme du second compartiment de dépôt (5) est identique à la forme du premier compartiment de dépôt (4) et le premier compartiment de dépôt (4) est fixé à l'une des deux parties partielles de la poche, tandis que le second compartiment de dépôt (5) est alors disposé sur l'autre partie partielle de la poche.
2. Sac pliable à ouverture automatique selon la revendication 1, dans lequel le premier compartiment de dépôt (4) est établi par la gaine pliable sous la forme

d'une paroi latérale ronde, ovale ou polygonale reliée à un côté intérieur de la poche extérieure (1) dans la région du bord inférieur.

3. Sac pliable à ouverture automatique selon la revendication 1 ou 2, dans lequel le deuxième compartiment de dépôt (5) est établi par une gaine pliable sous la forme d'une paroi latérale ronde, ovale ou polygonale reliée à un côté intérieur de la poche extérieure (1) dans la zone du bord inférieur.
4. Sac pliable à ouverture automatique selon la revendication précédente, dans lequel la gaine repliable du premier compartiment de dépôt (4) et/ou du second compartiment de dépôt (5) peut être fixée dans une position pliée de l'enveloppe par des moyens de fixation sur la paroi intérieure de la poche extérieure (1).
5. Sac pliable à ouverture automatique selon l'une des revendications précédentes, dans lequel une paroi latérale supplémentaire (9) est fixée d'un côté du sac à la gaine pliable du compartiment de stockage (4) et à la gaine pliable du compartiment de stockage du second compartiment de stockage (5) pour former un compartiment supplémentaire, laquelle paroi latérale (9) est
- amovible ou solidement fixée à la paroi intérieure de la poche extérieure (1) ou
  - ou pourvue d'un fond adjacent à son bord inférieur, et dans laquelle
- la paroi latérale (9) est reliée à la gaine pliable et/ou à la poche extérieure (1) de telle sorte que la paroi latérale (9) forme avec la gaine pliable et le fond ou la face intérieure de la poche extérieure (1) le compartiment supplémentaire.
6. Sac pliable à ouverture automatique selon la revendication 5, dans lequel des deux côtés du premier compartiment de dépôt (4) et du deuxième compartiment de dépôt (5), des parois latérales (9) sont prévues pour former le compartiment supplémentaire sur un premier côté et un deuxième compartiment additionnel sur le côté opposé.
7. Sac pliable à ouverture automatique selon la revendication 5 ou selon la revendication 6, dans lequel la paroi latérale (9) est reliée de manière amovible à l'enveloppe et/ou à la poche extérieure (1), notamment au moyen d'une fermeture à glissière ou d'une liaison velcro.
8. Sac pliable à ouverture automatique selon l'une des revendications précédentes, dans lequel la gaine pliable du premier compartiment de stockage (4) et du deuxième compartiment de stockage (5) compor-

te un fond pour former des sacs partiels fermés sur les côtés et au fond, le premier compartiment de stockage (4) et le deuxième compartiment de stockage (5) étant insérés librement dans les compartiments de dépôt de la poche extérieure (1) ou étant reliés de manière amovible à la face intérieure ou au bord de la poche extérieure (1). 5

9. Sac pliable à ouverture automatique selon l'une des revendications précédentes, dans lequel les moyens à ressort sont formés par un ressort hélicoïdal enroulé autour d'au moins l'un du premier compartiment de dépôt (4) ou du deuxième compartiment de dépôt (5). 10

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10. Sac pliable à ouverture automatique selon l'une des revendications précédentes, dans lequel, dans la position pliée de la poche extérieure (1) dans laquelle la gaine repliée est située entre les côtés intérieurs opposés de la poche extérieure (1), la poche extérieure pliée (1) peut être fermée au moyen d'une fermeture formée notamment par un bouton-pression, une fermeture velcro, une languette de fermeture pouvant être fixée à la partie opposée du sac extérieur, ou par une fermeture à glissière. 20

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11. Sac pliable à ouverture automatique selon la revendication 10, dans lequel une boucle de transport (2) est disposée sur les deux gaines pliables du premier compartiment de dépôt (4) et du second compartiment de dépôt (5), qui sont disposées et conçues de manière à ce que, lorsque la poche extérieure (1) est dépliée, elles puissent être placées l'une sur l'autre pour former une poignée pouvant être saisie avec au moins une main d'un utilisateur. 30

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12. Sac pliable à ouverture automatique selon l'une des revendications précédentes, dans lequel la poche extérieure (1) et les gaines pliables sont réalisées en un matériau hydrofuge ou imperméable, notamment en tissu ou en plastique et/ou dans lequel les gaines pliables du premier compartiment de dépôt (4) et du deuxième compartiment de dépôt (5) ou les parois latérales (9) sont réalisées en un matériau thermiquement isolant. 40

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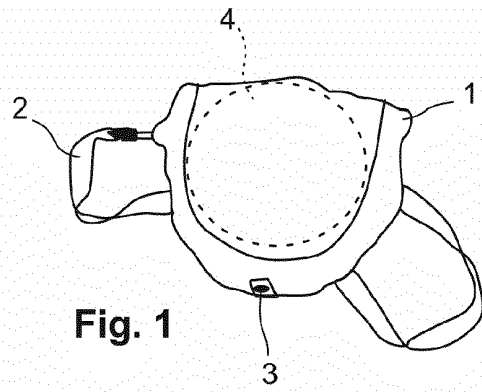


Fig. 1

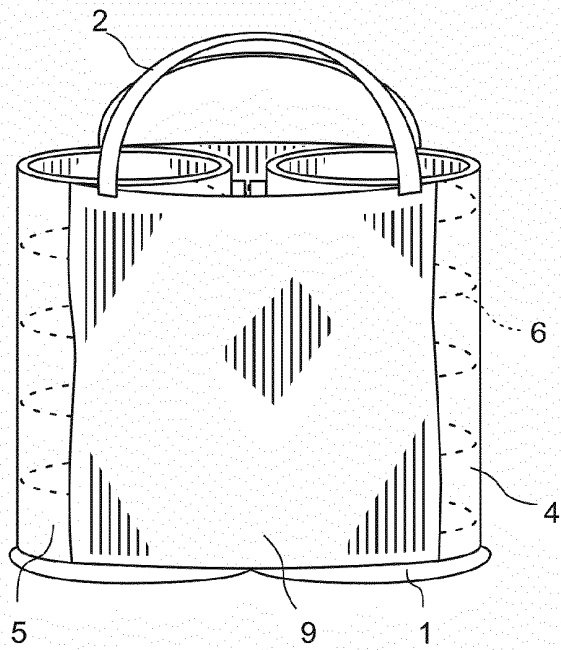


Fig. 2

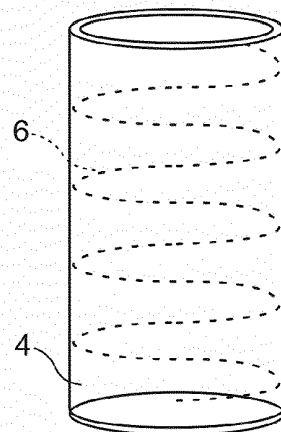


Fig. 4

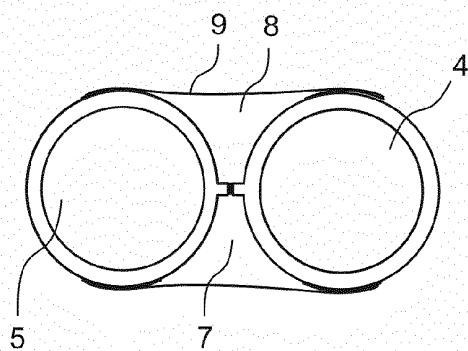


Fig. 3

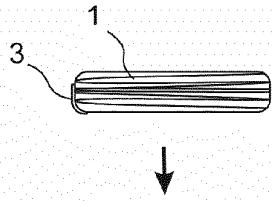


Fig. 5a

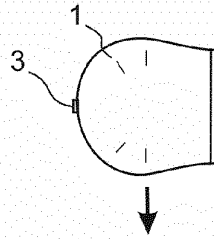


Fig. 6a

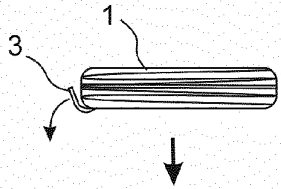


Fig. 5b

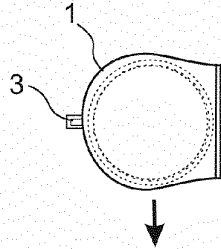


Fig. 6b

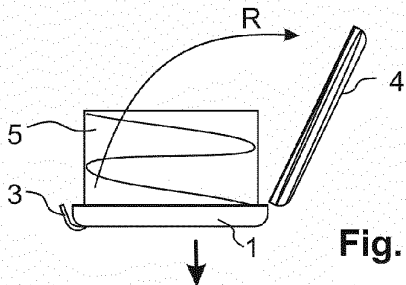


Fig. 5c

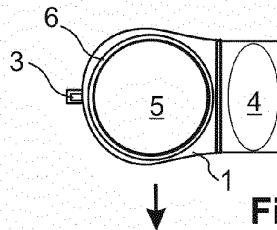


Fig. 6c

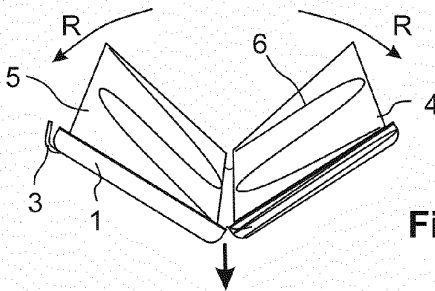


Fig. 5d

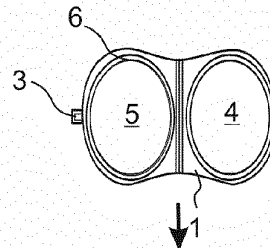


Fig. 6d

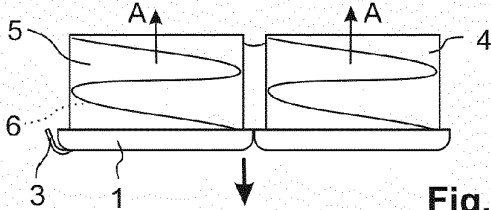


Fig. 5e

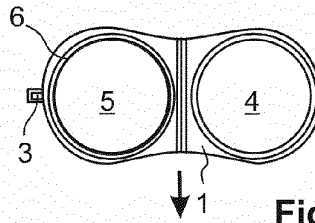


Fig. 6e

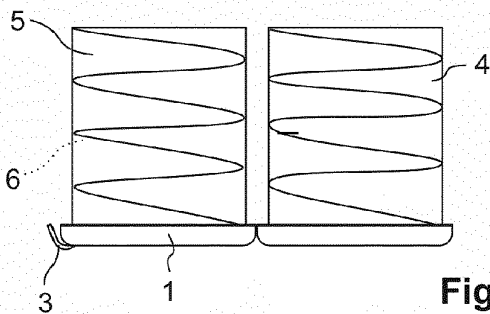


Fig. 5f

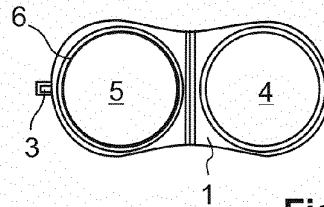


Fig. 6f

**REFERENCES CITED IN THE DESCRIPTION**

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