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(54) **Fluid container**

(57) A container (2) for fluids, the container (2) including:

- a bag (4) enclosing a reservoir (6), wherein the bag (4) is made of two first layers (8) of plastic film, the bag (4) having a bag mouth (10) with a bag mouth edge (12), wherein the two first layers (8) are interconnected along side edges (14) of the bag and a bottom (16) of the bag; and

- a pocket (18) made of two second layers (20) of flexible plastic film, the pocket having a pocket mouth (22) with a pocket mouth edge (24), wherein the two second layers (20) are connected along the side edges (26) and the bottom (28) of the pocket, wherein the bag mouth edge (12) is connected with the pocket mouth edge (24) for forming a joint (30) between the bag (4) and the pocket (18), wherein the bag (4) is provided with an insertion zone (32) for inserting a tube (34) through the pocket (18) into the reservoir (6), the insertion zone (32) extending from the bag mouth (10) to the bottom (28) of the pocket, wherein a connection (36) traversing the first layer (8) and the second layer (20) is formed at either side of the insertion zone (32), and wherein each connection (36) is clear of the side edges (26) and the bottom (28) of the pocket, and a use of such a container (2).

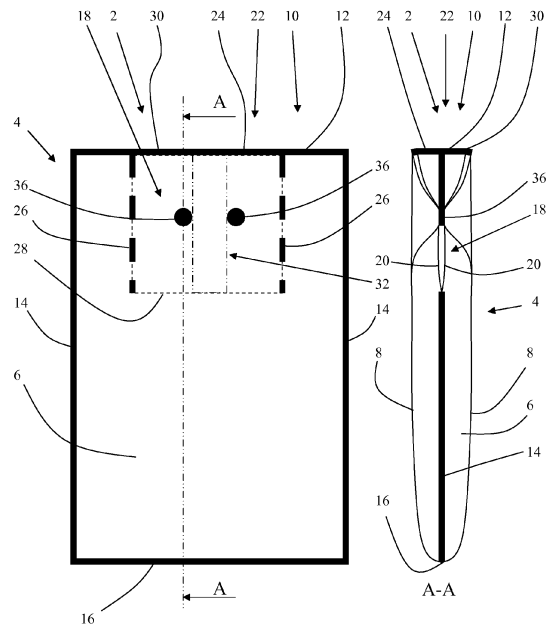


Fig. 2

Description

Field of the Invention

[0001] The present invention concerns a container for fluids, the container including:

- a bag forming a reservoir, wherein the bag is made of two first layers of plastic film, the bag having a bag mouth with a bag mouth edge, wherein the two first layers are interconnected along side edges of the bag and a bottom of the bag; and
- a pocket made of two second layers of flexible plastic film, the pocket having a pocket mouth with a pocket mouth edge, wherein the two second layers are connected along the side edges and the bottom of the pocket, wherein the bag mouth edge is connected with the pocket mouth edge for forming a joint between the bag and the pocket, wherein the container is provided with an insertion zone for inserting a tube through the pocket into the reservoir, the insertion zone extending from the joint to the bottom of the pocket, wherein a connection traversing the second layers is formed at either side of the insertion zone, and wherein each connection is clear of the side edges of the pocket and the bottom of the pocket, and a use of such a container in an apparatus for dispensing fluids in the container.

Background of the Invention

[0002] In some countries where the quality of water for domestic use does not meet consumer standard for drinking water, drinking water is sold in shops. The drinking water can be purchased in disposable packings which are destroyed or recycled in other packing material. However, this is not optimal with regard to the environment.

[0003] Therefore there are provided vending machines with drinking water which is drawn by the consumer in containers brought by the consumer every time. The containers are of a type having a permanent shape and therefore a fixed volume.

[0004] However, it is a drawback that the consumer has to bring the containers by himself as by impulse buying it is necessary to buy extra containers. Purchase of extra containers reduce the environmental advantages of this solution. Moreover, empty containers also take up space at home.

[0005] In some of the above mentioned vending machines it is possible to add flavouring to the drinking water while drawing off the water so that a soft drink is obtained. The flavouring can be added to the drinking water as dry matter during the drawing action or be admixed the water in beforehand, providing a soft drink.

[0006] An example of such a vending machine is known from US 2009/0045256 A1 where one can choose freely between drinking water or drinking water added flavouring.

[0007] It is a drawback that it is only possible to offer a limited number of various tastes in such vending machines.

[0008] Moreover, the so-called "shelf life after opening" of the flavouring in the form of dry matter as well as a premixed liquid will be limited after the vending machine has been replenished with the dry matter or the premixed liquid, as the shelf life runs from the time where the packing of the flavouring has been broken. This is a factor contributing to reducing the number of offers in the vending machines.

[0009] Moreover, it is required that the cock is cleaned at least when changing between water, a soft drink with one flavour, and a soft drink with a different flavour. Alternatively, the vending machine is to have a cock for each product that it can dispense.

[0010] Furthermore, a container of the kind mentioned in the introduction is known from GB 826 784 A. However, this prior art container may have problems with stability in the insertion zone due the risk of collapse of the flexible plastic film.

Object of the Invention

[0011] It is the object of the invention to indicate a container for fluids and a use thereof in an apparatus for dispensing fluids in the container, where the above drawbacks are relieved.

Description of the Invention

[0012] According to the invention, this is achieved by a container for fluids where the container is peculiar in that the connection extending transversely of the second layers extends transversely of the first layer as well.

[0013] Moreover, this is achieved by using a container of the above mentioned type in an apparatus for dispensing fluids in the container.

[0014] By the term "bag" in the present description is meant a container made of two layers of a flexible material where the layers are interconnected for forming a reservoir.

[0015] In the present description, the term fluid is used for gases and liquids. Where the term "liquid" is used in the present description, this does not exclude gases.

[0016] The tube can be a syringe that may penetrate the bottom of the pocket and give access to the reservoir such that the fluid can flow into the reservoir when the container is to be filled. When the container is to be emptied, the tube can be used again such that the fluid can flow out of the container.

[0017] By the term "syringe" in the present description is meant a tubular device for emptying fluid from a reservoir. For example, a syringe can be a syringe for medical purposes, a filling tube in a filling machine, or a straw.

[0018] Hereby is achieved that it is possible to use a container in the self-service vending machines and which is easily accommodated in the machine as the volume

of the container in empty condition is very small compared with containers with a permanent shape.

[0019] The containers can be made of a reusable plastic material. The environmental difference between the two solutions is hereby reduced.

[0020] The containers are easily disposed of after use as they do not need much space when handling the waste.

[0021] Moreover, it is achieved that a greater number of different flavours can be offered as the flavours can be filled into the reservoir in beforehand. Hence it is only necessary that the apparatus has a cock for drinking water. The number of flavours is thus not determined by the size of the machine.

[0022] The containers will be sealed until they are filled with drinking water. The shelf life of the flavouring therefore runs after opening from the time when the consumer fills the container with drinking water as it is only from this time on that deterioration of the product due to oxidation begins.

[0023] The apparatus can be designed in such a way that the cock does not come into contact with the flavouring such that cleaning of the cock is not needed between each tapping besides what is required with regard to common hygienic standards.

[0024] If the cock should come in contact with the liquid in the container after mixing, only one cleaning system is required in the apparatus as only one cock is needed.

[0025] When the bag is full, the pocket with cause the aperture to the reservoir to be closed by itself as the special design of the pocket makes the container self-closing.

[0026] It is therefore yet an object of the present invention to indicate a self-closing container for fluids. The use of the container thereby enables application of a film container in a dispensing machine without necessarily requiring means for sealing the container, e.g. welding jaws.

[0027] The self-closing properties of the container are activated by turning it upside down such that the liquid runs out in the interspace between the first plastic film layers and the second film layers of the pocket. The liquid runs around the connection transversely to the layers such that a back pressure is formed, keeping the bag mouth and the aperture to the reservoir closed.

[0028] The pocket will be compressed by the liquid in the reservoir.

[0029] The connection traversing the first layers and second layers contribute to stretching the pocket and the aperture out such that they do not collapse.

[0030] The consumer can reopen the container, either by cutting it up or by inserting a tube through the aperture. The tube can e.g. be a straw.

The container can lie in a shopping basket without leaking.

[0031] In an embodiment of the invention, the two first layers of plastic film are made of a relatively thick film, e.g. between 0.05 and 0.25 mm thick.

[0032] In one embodiment of the invention, the plastic film is a laminate. For example, by a laminate it is possible to combine materials providing high strength with materials acting as a barrier or materials which can be squeezed.

[0033] Hereby is achieved that the container, with proper design of the bottom, can be made to stand without collapsing.

[0034] The width of the insertion zone is primarily dimensioned with regard to insertion of a tube through the pocket into the reservoir. This tube is dimensioned based on the desired flow rate into and out of the reservoir. The width of the aperture is defined hereby as well.

[0035] The connection traversing the first layers and the second layers is disposed such that it is clear of the side edges of the pocket and bottom of the pocket so that the liquid in the reservoir can run around the connection. The connection is established such that it joins all the film layers into one joint.

[0036] According to a further embodiment, the container according to the invention is peculiar in that the connection is clear of the bag mouth edge and the pocket mouth edge.

[0037] Hereby is achieved that the fluid can run around the connection and surround it completely. The closure of the bag mouth hereby becomes more effective.

[0038] The distance between the connection and the surrounding edges can be optimised by making the distance as large as possible under consideration of the strength of the connection required in order that the filled container can resist the actions applied in common use.

[0039] According to a further embodiment, the container according to the invention is peculiar in that the first and second plastic film layers are of a weldable plastic film, and wherein the connections between the first and second layers are weldings.

[0040] It is hereby achieved that the connection can be established in a very simple way. Welding weldable plastic film is simple to perform.

[0041] This is also a particular advantage in the present invention as it is not necessary to add material. As the container in some embodiments is used for foodstuffs, it is necessary to use materials which are food approved. By using welding for establishing the connections between the layers of plastic film, the number of materials that are to meet the requirements can be limited to the plastic films only.

[0042] The container can hereby more easily be approved for storage of foodstuffs.

[0043] Examples of weldable plastic films to be mentioned: Polyethylene, polypropylene and polyamides.

[0044] Another advantage is that the connection can be established from the outside as the film layers are just squeezed by welding jaws. It is therefore not necessary to have access to the interior of the bag in order to establish the connection.

[0045] According to a further embodiment, the container according to the invention is peculiar in that the welding

is a spot welding.

[0046] Hereby is achieved that the closing of the container after filling becomes more efficient as the water can run around the connection and surround it completely.

[0047] The closure is better the less area the welding covers as the water can better press around the aperture and the bag mouth. On the other hand, the strength of the connection decreases when the area becomes smaller. Therefore there will be an optimal compromise between closing capability and strength, which depends on the area of the welding.

[0048] According to a further embodiment, the container according to the invention is peculiar in that the bag has side edges extending between the bag mouth edge and the bag bottom, and that the side edges of the pocket are connected to the bag along the side edges of the bag.

[0049] Hereby is achieved that the pocket is better secured against collapse when the container is full. If the pocket collapses, this may entail a less effective closing of the aperture.

[0050] In an embodiment of the invention, the pocket is connected to the first layers of plastic film at the point where the side edges of the pocket encounters the bottom of the pocket.

[0051] The risk of collapse is hereby reduced while the fluid can still run out in the interspace between the bag and the pocket.

[0052] In an embodiment of the invention, the pocket is connected to the first layers of plastic film along the side edges of the pocket.

[0053] The risk of collapse is hereby reduced while the fluid can still run out in the interspace between the bag and the pocket.

[0054] According to a further embodiment, the container according to the invention is peculiar in that the bottom of the pocket is formed with an aperture for inserting the tube, and wherein the width of the aperture along the bottom of the pocket is less than or equal to the width of the insertion zone.

[0055] The aperture is hereby established without needing to establish it when penetrating the pocket. The tube therefore does not need a cutting edge at the free end.

[0056] According to a further embodiment, the container according to the invention is peculiar in that the second film layers are made of a plastic film with a thickness less than 0.05 mm.

[0057] Hereby is provided a pocket made of a very flexible material. The pocket can thereby better yield and adapt to the shape of the bag along the bag mouth. The closure thereby becomes more effective.

[0058] In an embodiment of the invention, the two first layers of plastic film are made of a film which is less flexible than the two second layers of plastic film.

[0059] The bag can hereby be made so as to stand by itself.

[0060] In an embodiment of the invention, the two first

layers of plastic film are made of a film which has at least as much flexibility as the two second layers of plastic film.

[0061] Hereby is achieved that the closure of the bag becomes more effective as the bag and the pocket can better adapt to the shape of each other.

[0062] According to a further embodiment, the container according to the invention is peculiar in that the two first layers include a first film sheet and a second film sheet which are interconnected along their edges except along the bag mouth, wherein the two second layers include a third and a fourth film sheet which are interconnected along their edges except along the pocket mouth, and wherein the first and third film sheets, and the second and fourth film sheets, respectively, are interconnected along the bag mouth edge and the pocket mouth edge, respectively.

[0063] Hereby is achieved that the bag can be formed of separate film sheets.

[0064] According to a further embodiment, the container according to the invention is peculiar in that the first film sheet and the second film sheet are rectangular and have uniform size, wherein the third film sheet and the fourth film sheet are rectangular and have uniform size, however less in size than the first and the second film sheets.

[0065] Hereby is achieved that the container can be provided in a way which is particularly simple to produce and to handle. The containers can be stored in stacks without appreciable waste of space. Furthermore, handling in a filling machine with automatic dispensing of the containers is also more simple as compared with other shapes.

[0066] According to a further embodiment, the container according to the invention is peculiar in that the reservoir has a maximum volume between 0.02 and 15 litres, preferably more than 0.15 litres, preferably between 0.25 and 11.35 litres, more preferably between 0.33 and 7.57 litres, more preferably between 0.33 and 3 litres, more preferably between 0.33 and 2 litres, more preferably between 0.33 and 1 litres, more preferably between 0.33 and 0.5 litres, most preferably 0.33 to 0.47 litres.

[0067] The size of about 0.02 litre is particularly suited for samples, perfume and spirits.

[0068] The size over 0.15 litre is suited for soft drinks, and up to 0.5 litres suited for individual sizes of soft drinks.

[0069] The range from 0.25 to 0.33 and 0.5 litres is already in use as standard sizes for soft drinks.

[0070] 0.47 litre corresponds to 1 fluid pint in the US measurement system.

[0071] The range between 1 and 3 litres is particularly suited for drinking water in European standard sizes.

[0072] The range up to 15 litres belong to the upper end of sizes that can be handled.

[0073] The limits for the other ranges corresponds to 11.35 to 3 US gallons, for 7.57 litres to 2 US gallons and for 3.79 to 1 US gallon.

[0074] According to a further embodiment, the contain-

er according to the invention is peculiar in that the reservoir contains an additive.

[0075] In one embodiment of the invention, the additive is flavouring.

[0076] Hereby is achieved that the containers after filling with drinking water or similar liquid contains a drink with a flavour. The amount of dry matter is to be adjusted such that the proper mixing ratio is attained automatically when filling the container.

[0077] In one embodiment, the additive is a chemical.

[0078] The additive may e.g. be a toxic chemical, a herbicide, for example. Hereby is achieved that the toxic chemical is added in the correct mixing ratio. In connection with spreading of herbicides, overdosing is a great problem.

[0079] Alternatively, the pocket can be used separately for forming a closure in any kind of container for storing fluids. An example of such an application of the self-closing bag mouth may be ice cube bags.

[0080] According to a further embodiment, the container according to the invention is peculiar in that each connection extends to the bag mouth edge and the pocket mouth edge for forming a funnel-shaped insertion area, and that a third connection is formed traversing the pocket mouth at either side of the funnel-shaped insertion area.

[0081] By inserting through the insertion area, the tube is guided towards the insertion zone.

[0082] Hereby is achieved that a tube only can inserted into the reservoir through the funnel-shaped insertion area and the insertion zone such that incorrect use of the container by inserting the tube outside the insertion zone is avoided.

[0083] According to a further embodiment, the container according to the invention is peculiar in that a third connection is formed traversing the pocket mouth at either side of the insertion zone.

[0084] Hereby is achieved that the tube is inserted in the reservoir through the insertion zone in a more reliable way.

[0085] The skilled in the art may combine compatible embodiments of the above described types.

Description of the Drawing

[0086] The invention will be explained in more detail below with reference to the accompanying drawing, where:

- Fig. 1 shows a filled container according to the invention;
 Fig. 2 shows a plan view and a sectional view of a container in a first embodiment;
 Fig. 3 shows a plan view and a sectional view of a container in a second embodiment;
 Fig. 4 shows a cross-section of the container in Fig. 3 after being filled and turned upside down;
 Fig. 5 shows a plan view of a container in a third em-

bodiment;

Fig. 6 illustrates a bag by itself and a pocket by itself;

Fig. 7 illustrates an apparatus for use together with a container according to the invention;

5 Fig. 8 illustrates a set of sheets arranged for assembling a container; and

Fig. 9 shows a plan view of a container in a fourth embodiment.

10 **[0087]** In the explanation of the Figures, identical or corresponding elements will be provided with the same designations in different Figures. Therefore, no explanation of all details will be given in connection with each single Figure/embodiment.

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Detailed Description of Embodiments of the Invention

[0088]

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Fig. 1 illustrates a filled container 2 according to the invention.

Fig. 2 shows a plan view and a sectional view (A-A) of a container 2 in a first embodiment;

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[0089] The container 2 includes a bag 4 enclosing a reservoir 6. The reservoir 6 may be empty, partly full or completely full. When the reservoir 6 is empty, the container will be approximately flat.

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[0090] The bag 4 is formed of two first plastic film layers 8. In the shown embodiment, the first layers 8 are of a weldable plastic film.

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[0091] In one embodiment, the two first layers 8 are formed of a sheet which is folded at the bottom 16 of the bag such that the sheet is laid double. The two first layers 8 are interconnected by a welding along the side edges 14 of the bag. The two first layers 8 are interconnected along the bottom 16 of the bag without welding as the sheet is folded at the bottom 16 of the bag.

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[0092] In one embodiment, the two first layers 8 are formed of two sheets which are laid upon each other. The two layers are interconnected along the side edges 14 of the bag and the bottom 16 of the bag by a welding.

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[0093] The bag 4 has a bag mouth 10 which is open such that content can be filled into the reservoir 6. A bag mouth edge 12 is formed along the bag mouth 10.

[0094] Furthermore, the container 2 includes a pocket 18. The pocket 18 is formed of two second layers 20 of flexible plastic film. In the shown embodiment, the second layers 20 are of a weldable plastic film.

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[0095] In an embodiment, the two second layers 20 are formed of a sheet which is folded at the bottom 28 of the pocket such that the sheet is laid double. The two second layers 20 are mutually connected by a welding along the side edges 26 of the pocket. The two second layers 20 are mutually connected along the bottom 28 of the pocket without welding as the sheet is folded at the bottom 28 of the pocket.

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[0096] In an embodiment, the two second layers 20 are formed of two sheets which are laid upon each other. The two layers are interconnected along the side edges 26 of the pocket and the bottom 28 of the pocket by a welding.

[0097] The pocket 18 has a pocket mouth 22 which is open such that content can be filled into the reservoir 6. A pocket mouth edge 24 is formed along the pocket mouth 22.

[0098] A joint 30 between the bag 4 and the pocket 18 is formed by connecting the bag mouth edge 12 with the pocket mouth edge 24.

[0099] The bag 4 has an insertion zone 32. The insertion zone 32 extends from the bag mouth 10 to the bottom 28 of the pocket. The insertion zone 32 is adapted such that a tube 34 (see Fig. 3) can be passed through the insertion zone 32 and into the reservoir 6.

[0100] At either side of the insertion zone 32 there is formed a connection 36 transversely to the first layers 8 and the second layers 20 such that the layers 8, 20 lie close together in the extension of the connection.

[0101] The connection 36 is clear of the side edges 26 and bottom 28 of the pocket.

[0102] In the shown embodiment, the connection 36 is formed by a welding, more specifically a spot welding.

[0103] In the shown embodiment, the connection 36 is clear of the bag mouth edge 12 and the pocket mouth edge 24.

[0104] The sectional view A-A shows clearly how the layers 8, 20 are joined in the connection 36.

[0105] Fig. 3 shows a plan view and a sectional view of a container 2 in a second embodiment. In connection with Fig. 3, only the differences between the first and the second embodiments are described.

[0106] In the shown embodiment, the bag 4 has side edges 14 extending between the bag mouth edge 12 and the bag bottom 16. The side edges 26 of the pocket are connected to the bag 4 along the side edges 14 of the bag. The bag 2 and the pocket 18 thus have approximately the same width.

[0107] On Fig. 3 is seen that a tube 34 is passed into the insertion zone 32. The tube 34 is used for filling the reservoir 6 and for drawing fluid from the reservoir 6, respectively. The pocket bottom 28 is provided with an aperture 38 established in beforehand such that the tube 34 can be passed directly into the reservoir 6.

[0108] Fig. 4 shows a cross-section C-C of the container in Fig. 3 after being filled with liquid and turned upside down.

[0109] The liquid flows past the connections 36 and fills the interspace between the pocket 18 8 and the bag 4. Hereby is formed a pressure closing the pocket mouth 22/the bag mouth 10. Moreover, a pressure is formed which squeezes the pocket bottom 28 such that the aperture 38 is closed.

[0110] The reservoir 6 is tight then.

[0111] Fig. 5 shows a plan view of a container 2 in a third embodiment.

[0112] This embodiment differs from the first embodiment in Fig. 2 in that the connections 36 are weldings which are not punctiform. In the shown embodiment, the connections 36 are rectangular, but other shapes, such as circular, oval, triangular, four-edged, pentagonal, hexagonal or any other polygon, or a combination of the mentioned shapes is possible.

[0113] Furthermore, second connections 40 are formed between the pocket 18 and the bag 4. The second connections 40 are disposed opposite the point where the pocket side edges 26 meet the pocket bottom 28. The second connections 40 increase the resistance of the pocket against collapsing.

[0114] In the shown embodiment, the reservoir 6 contains an additive 42. The additive 42 can be added under sterile conditions as the shown container 2 is provided with a pocket 18 without an aperture 38 (see Fig. 3). The additive 42 is supplied before completely closing the bag and/or the pocket.

[0115] Fig. 6 illustrates a bag 4 by itself and a pocket 18 by itself, respectively. The pocket 18 is ready to be passed into the bag 4 for forming the connection 30 (see Figs. 2, 3, 4, 5) between the bag mouth edge 12 and the pocket mouth edge 24.

[0116] Fig. 7 illustrates an apparatus 44 for dispensing fluids into a container according to the invention. The apparatus 44 has a cock in the form of a tube 34 which can be inserted in the reservoir 6 in the container 2. The apparatus 44 has means 45 for dispensing a fluid through the tube 34.

[0117] Fig. 8 illustrates a set of sheets arranged for assembling a container 2. The two first layers 8 include a first film sheet 46 and a second film sheet 48 which are interconnected along their edges 14, 16 except along the bag mouth 10 (not shown). The two second layers 20 include a third film sheet 50 and a fourth film sheet 52 which are interconnected along their edges 26, 28 except along the pocket mouth 22 (not shown). The first 46 and third 50 film sheets, and the second 48 and the fourth 52 film sheets, respectively, are mutually connected along the bag mouth edge 12 and the pocket mouth edge 24, respectively.

[0118] The film sheets 46, 48, 50, 52 are all rectangular. The first and second film sheets 46, 48 have identical size. The third and fourth film sheets 50, 52 have identical size, however a size which is less than that of the first and second film sheets 46, 48.

[0119] Fig. 9 shows a plan view of a container 2 in a fourth embodiment.

[0120] This embodiment differs from the first embodiment in Fig. 3 in that the connections 36 are welds which are not punctiform. Moreover, this embodiment differs in that the connections 36 extend to the bag mouth edge 12 and the pocket mouth edge 24 for forming a funnel-shaped insertion area 56. Moreover, the pocket mouth edge 24 is connected at either side of the insertion area 56 by weldings 58 traversing the first and second layers 8, 20 (see Figs. 2, 3 and 8).

[0121] In the shown embodiment, the connections 36 are a combination of punctiform weldings and rectangular weldings. The form is determined by the applied welding tool. The advantage of the funnel-shaped insertion area 56 combined with the weldings 58 at either side of the funnel-shaped insertion area is that the tube 34 (see Fig. 3) can be inserted into the reservoir 6 through insertion area 56 and the insertion zone 32 only as intended. This reduces the risk of incorrect use of the container 2.

Claims

1. A container (2) for fluids, the container (2) including:

- a bag (4) forming a reservoir (6), wherein the bag (4) is made of two first layers (8) of plastic film, the bag (4) having a bag mouth (10) with a bag mouth edge (12), wherein the two first layers (8) are interconnected along side edges (14) of the bag and a bottom (16) of the bag; and

- a pocket (18) made of two second layers (20) of flexible plastic film, the pocket having a pocket mouth (22) with a pocket mouth edge (24), wherein the two second layers (20) are connected along the side edges (26) of the pocket and the bottom (28) of the pocket, wherein the bag mouth edge (12) is connected with the pocket mouth edge (24) for forming a joint (30) between the bag (4) and the pocket (18), wherein the container (2) is provided with an insertion zone (32) for inserting a tube (34) through the pocket (18) into the reservoir (6), the insertion zone (32) extending from the joint (30) to the bottom (28) of the pocket, wherein a connection (36) traversing the second layers (20) is formed at either side of the insertion zone (32), and wherein each connection (36) is clear of the side edges (26) of the pocket and the bottom (28) of the pocket, **characterised in that** the connection (36) traversing the second layers (20) extends transversely of the first layer (8) as well.

2. Container (2) according to claim 1, wherein the connection (36) is clear of the bag mouth edge (12) and the pocket mouth edge (24).

3. Container (2) according to claim 1 or 2, wherein the first and second plastic film layers (8, 20) are of a weldable plastic film, and wherein the connections (36) between the first and second layers (8, 20) are weldings.

4. Container (2) according to claim 3, wherein the weldings are spot weldings.

5. Container (2) according to any preceding claim, wherein the bag (4) has side edges (14) extending

between the bag mouth edge (12) and the bottom (16) of the bag, and wherein the side edges (26) of the pocket are connected to the bag (4) along the side edges (14) of the bag.

6. Container (2) according to any preceding claim, wherein the bottom (28) of the pocket is formed with an aperture (38) for inserting the tube (34), and wherein the width of the aperture along the bottom of the pocket is less than or equal to the width of the insertion zone.

7. Container (2) according to any preceding claim, wherein the second layers (20) of flexible film is a plastic film with a thickness less than 0.05 mm.

8. Container (2) according to any preceding claim, wherein the two first layers (8) include a first film sheet (46) and a second film sheet (48) which are interconnected along their edges (14, 16) except along the bag mouth (10), wherein the two second layers (20) include a third (50) and a fourth film sheet (52) which are interconnected along their edges (26, 28) except along the pocket mouth (22), and wherein the first (46) and third (50) film sheets, and the second (48) and fourth (52) film sheets, respectively, are interconnected along the bag mouth edge (12) and the pocket mouth edge (24), respectively.

9. Container (2) according to claim 8, wherein the first film sheet (46) and the second film sheet (48) are rectangular and have uniform size, wherein the third film sheet (50) and the fourth film sheet (52) are rectangular and have uniform size, however less in size than the first (46) and the second (48) film sheets.

10. Container (2) according to any preceding claim, wherein the reservoir (6) has a maximum volume between 0.2 and 15 litres, preferably more than 0.15 litres, preferably between 0.25 and 11.35 litres, more preferably between 0.33 and 7.57 litres, more preferably between 0.33 and 3.79 litres, more preferably between 0.33 and 2 litres, more preferably between 0.33 and 1 litre, more preferably between 0.33 and 0.5 litres, most preferably 0.33 to 0.47 litres.

11. Container (2) according to any of claims 1 - 5 and 7 - 10, wherein the reservoir (6) contains an additive (42).

12. Container (2) according to any preceding claim, wherein each connection (36) extends to the bag mouth edge (12) and the pocket mouth edge (24) for forming a funnel-shaped insertion area (56), and wherein there is formed a third connection (58) traversing the pocket mouth (22) at either side of the funnel-shaped insertion area (56).

13. Container (2) according to any preceding claim, wherein a third connection is formed traversing the pocket mouth (22) at either side of the insertion zone (32).

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14. Use of a container (2) according to any preceding claim in an apparatus (44) for dispensing fluids into the container.

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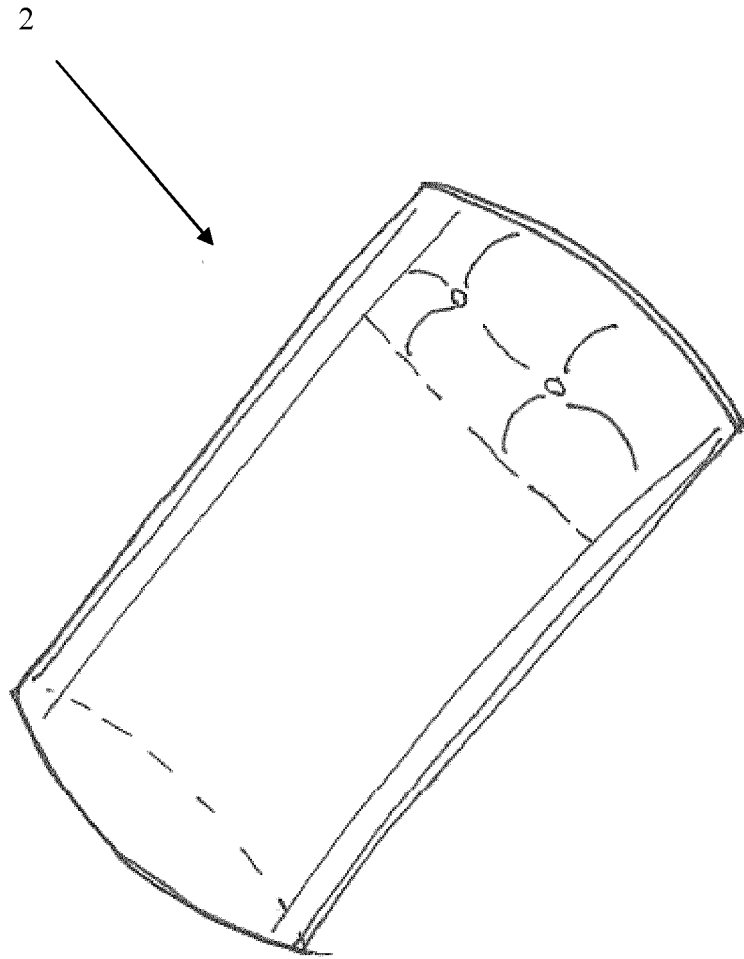


Fig. 1

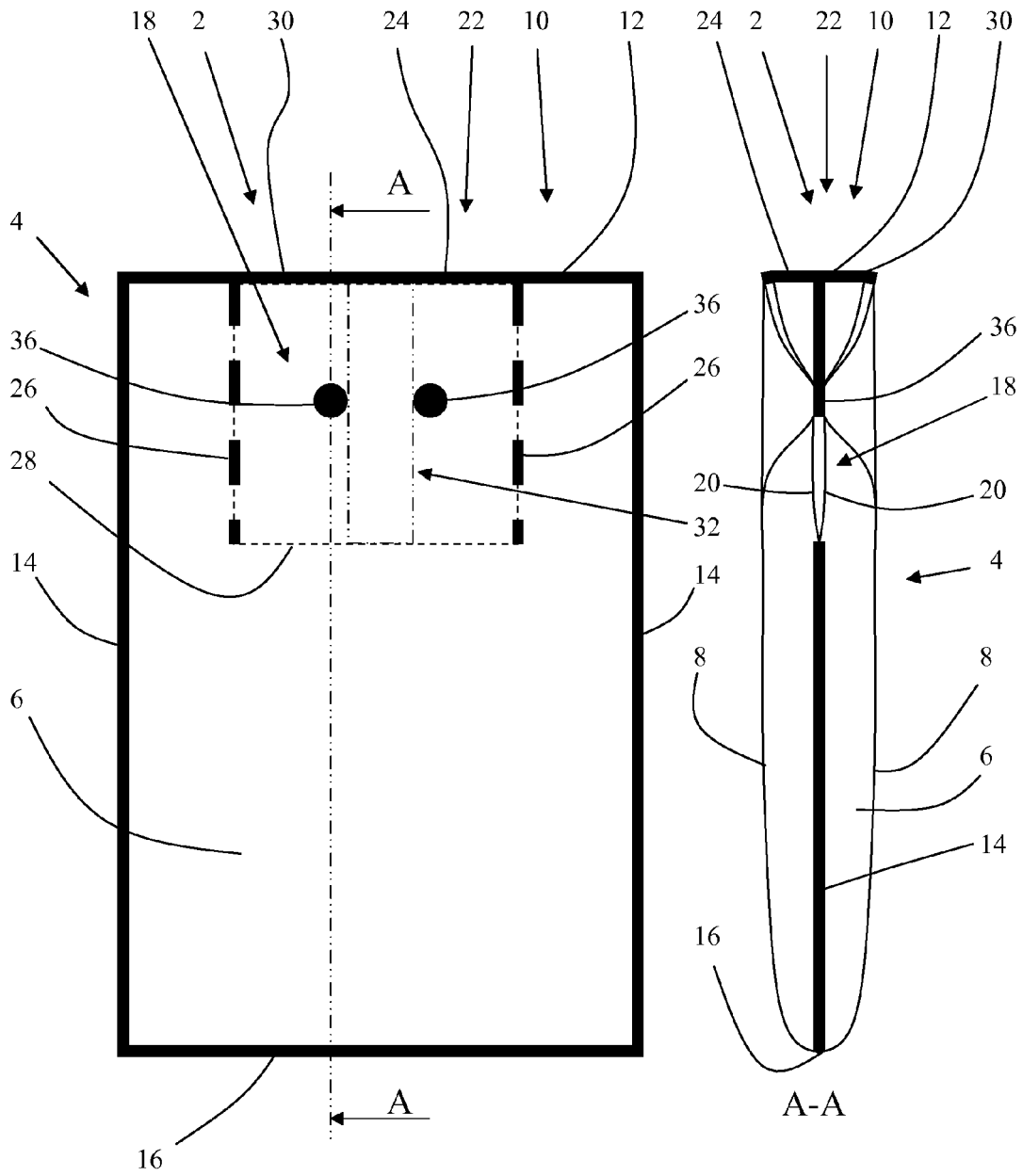


Fig. 2

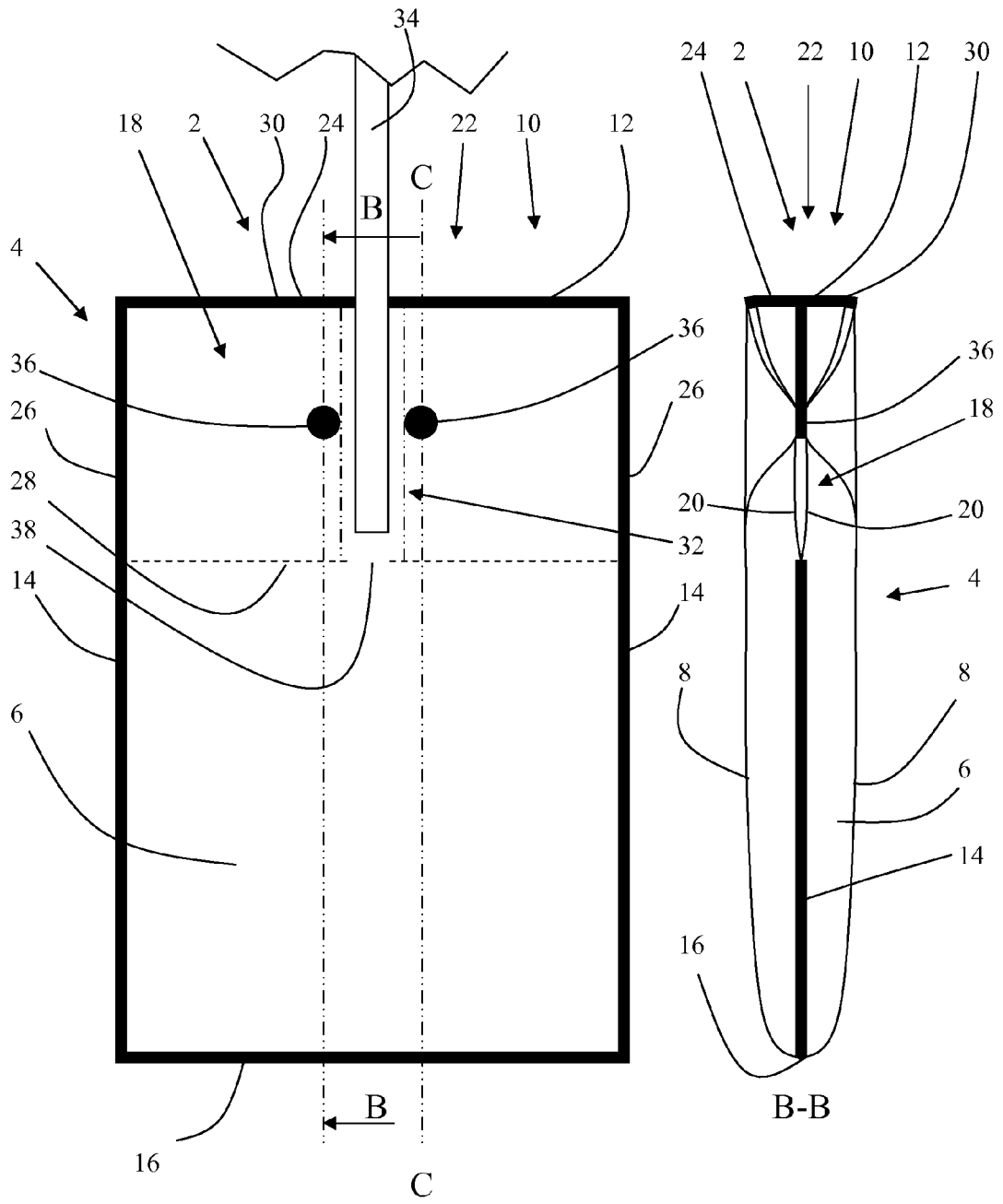


Fig. 3

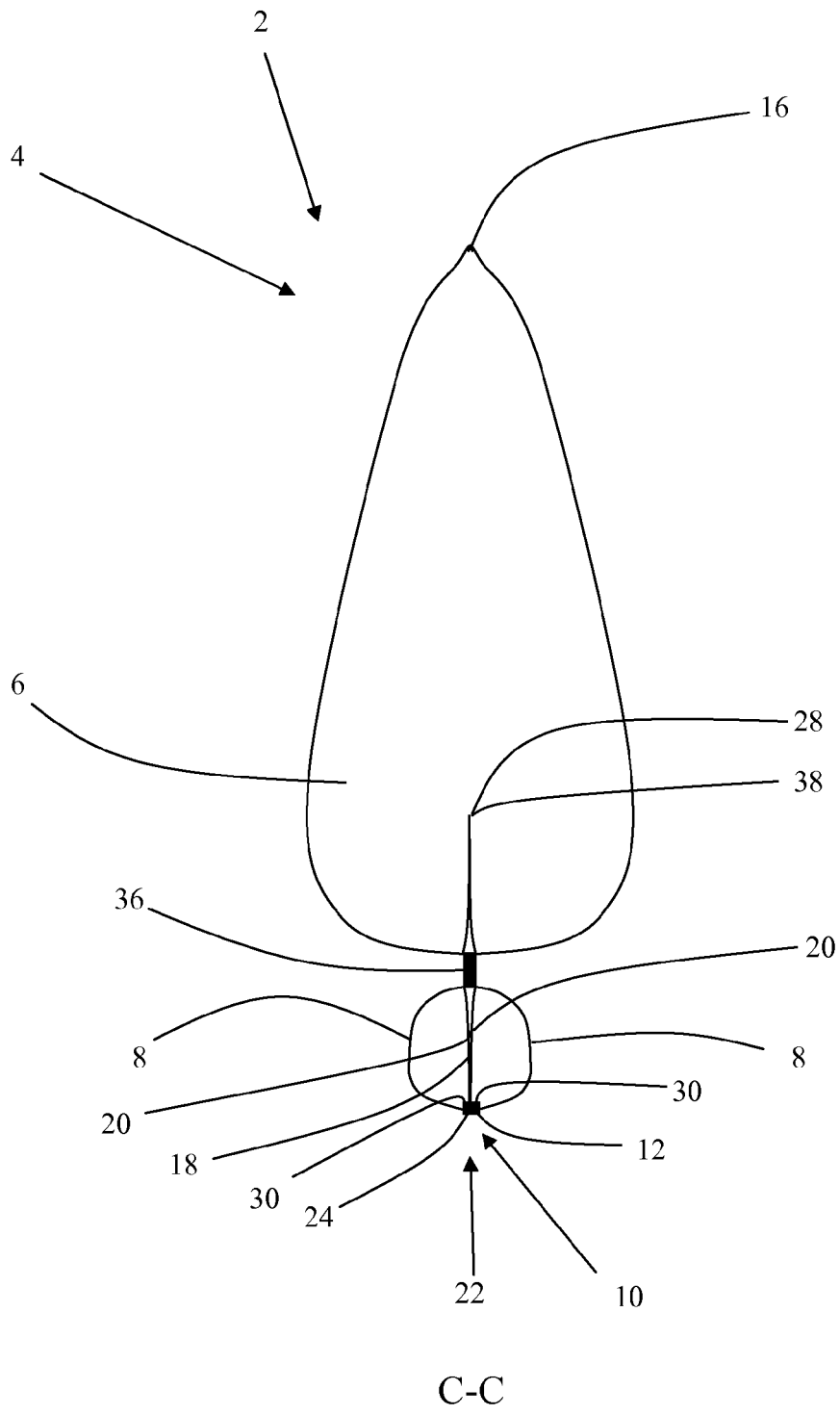


Fig. 4

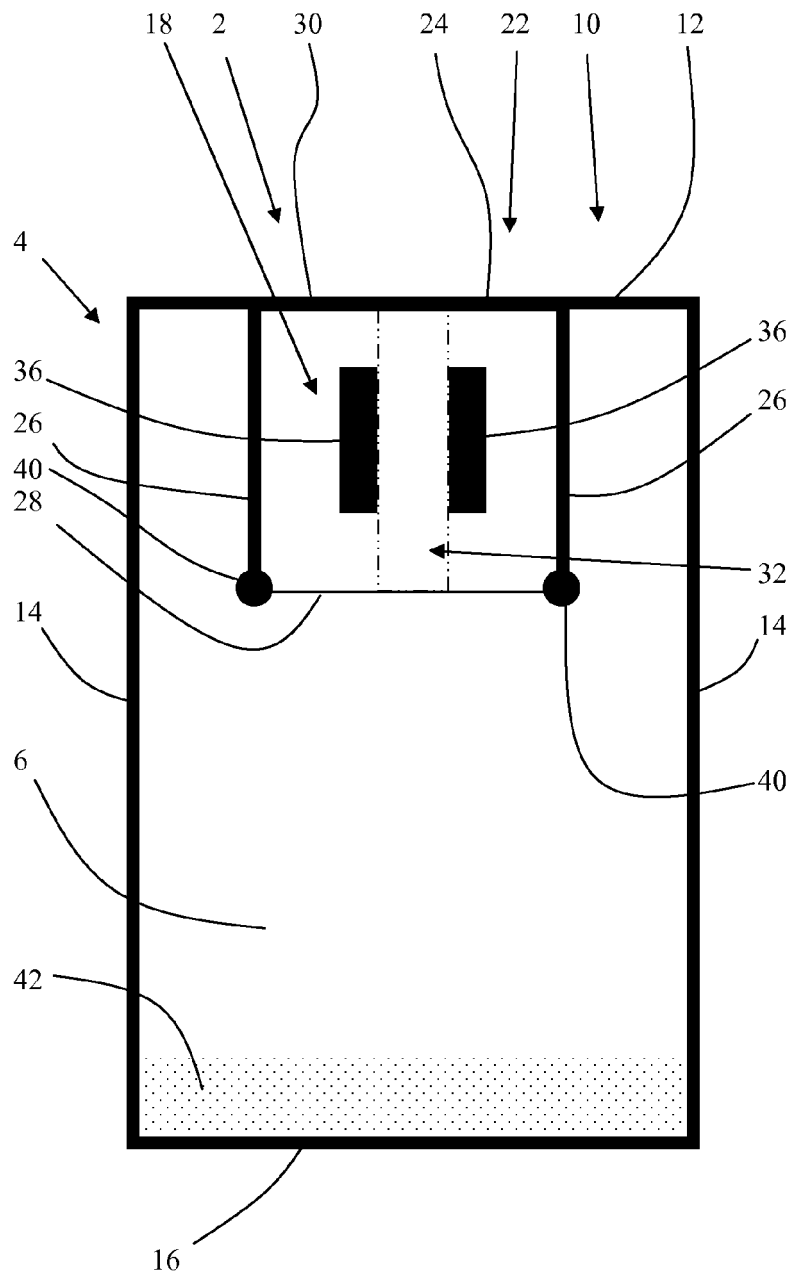


Fig. 5

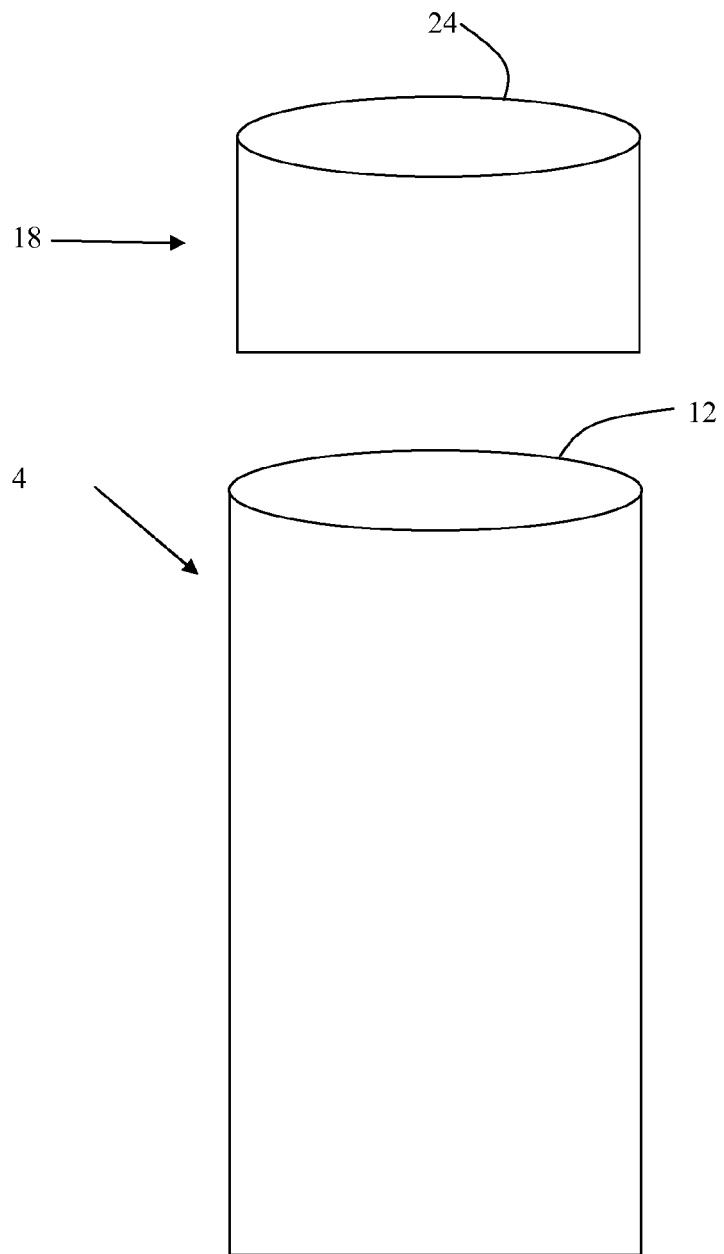


Fig. 6

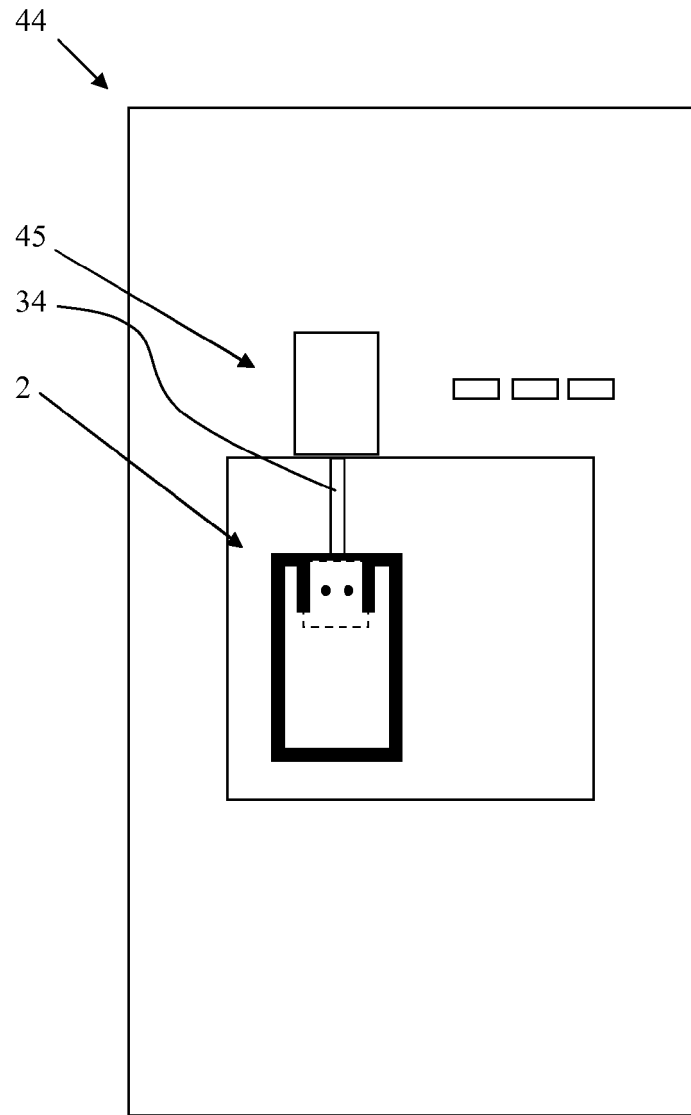


Fig. 7

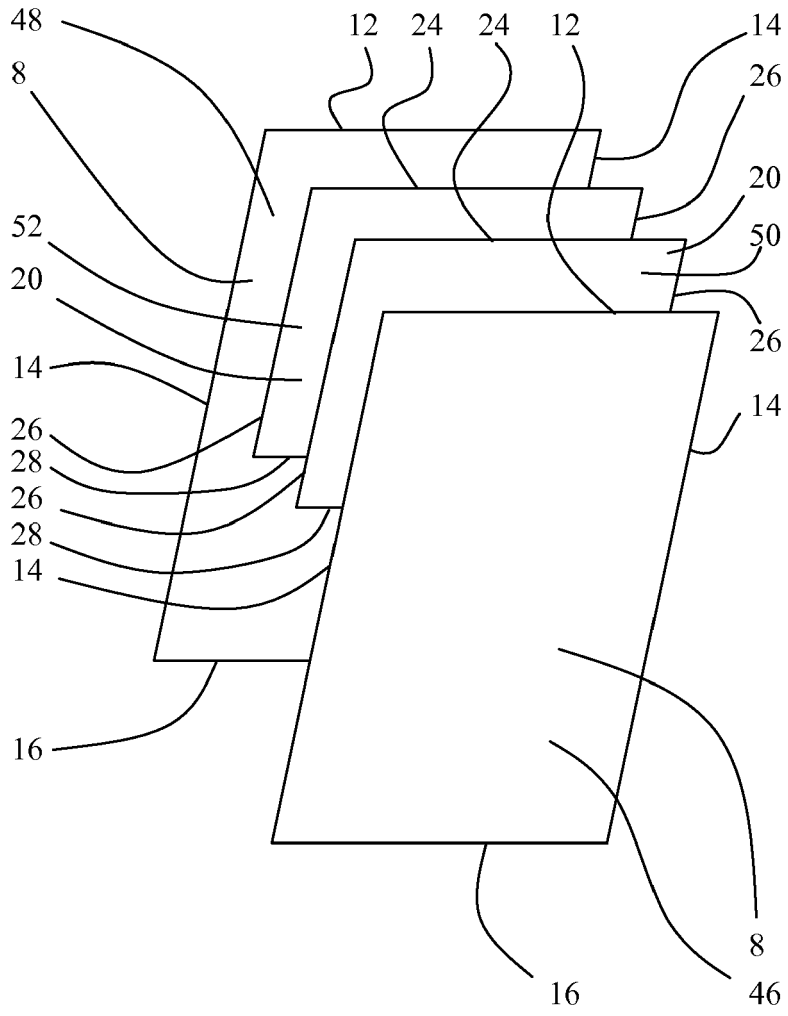


Fig. 8

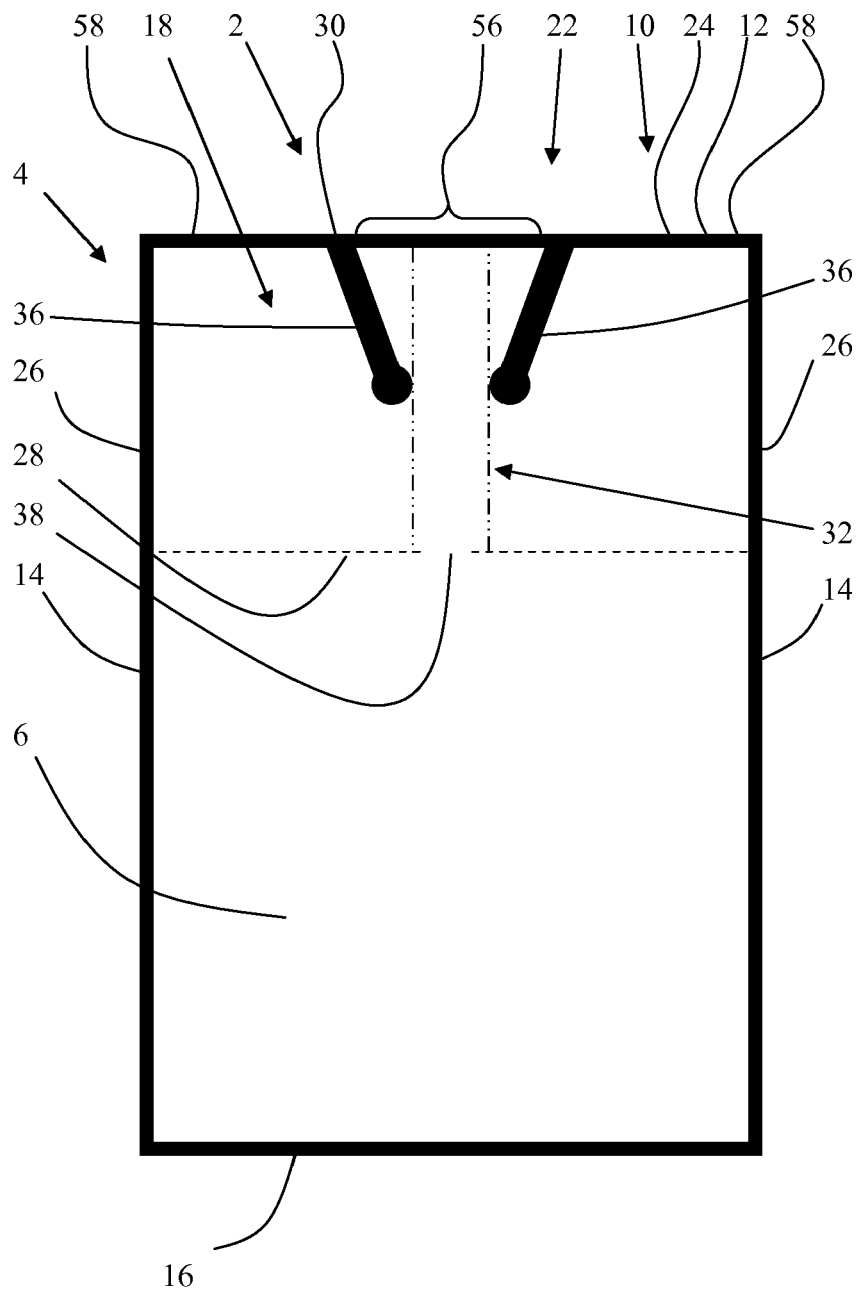


Fig. 9



EUROPEAN SEARCH REPORT

Application Number
EP 13 17 5530

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 3 282 412 A (CORELLA ARTHUR P ET AL) 1 November 1966 (1966-11-01) * column 1, lines 9-17 * * column 2, lines 38-46 * * column 5, line 2 - column 6, line 22 * * column 8, lines 20-58; figures 1-6,9-12 * *	1-3,5-14	INV. B65D30/24
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Place of search Munich		Date of completion of the search 4 November 2013	Examiner Leijten, René
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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REFERENCES CITED IN THE DESCRIPTION

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