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(72) Inventor: **Besselink, Hendrik Albertus**
7217 TL Harfsen (NL)

(74) Representative: **Winckels, Johannes Hubertus F.
et al**
Vereenigde
Johan de Wittlaan 7
2517 JR Den Haag (NL)

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(71) Applicant: **Genap B.V.**
7041 GA 's-Heerenberg (NL)

(54) **Method for building a reservoir, and a reservoir, a bag, an assembly and a method for manufacturing a lining**

(57) A method for building a reservoir for one or more solids and/or liquids, for instance a silo or basin for storage of water, comprising:

- determining a reservoir ground surface;
- placing on said ground surface a substantially closed bag of flexible material, while, during use, a space surrounded by the bag forms a storage volume which can be filled with said solids and/or liquids; and
- providing at least one supporting side wall extending

upwards from an edge of the ground surface (B), for supporting, during use, an adjoining side of said bag.

The invention further provides a reservoir, a bag, an assembly and a method for manufacturing an inside liner or lining.

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Description

[0001] The invention relates to a method for building a reservoir.

[0002] In addition, the invention relates to a reservoir, an assembly, a bag, and a method for manufacturing a lining or inside liner.

[0003] The referred-to reservoir can comprise, for instance, a reservoir for one or more solids and/or liquids, for instance a silo or basin for storing water.

[0004] It is known from practice to build a silo by setting up a cylindrical side wall on a bottom. The wall surrounds a desired storage space. The side wall and a ground surface surrounded by the wall can be provided with, for instance, a watertight inside liner. The thus built-up silo can then be filled with, for instance, water or another substance. Such a silo is often used in horticulture for storing water used for watering crops.

[0005] As a rule, it is desired to cover the silo at an upper side, so as to prevent, for instance, pollutions from being blown into the storage space. Moreover, such a covering may serve as algae control. It is known to provide the silo to this end with, for instance, a roof construction, for instance a construction with heavy rafters, which construction is supported by the wall of the silo. However, such a construction is relatively heavy, necessitating an expensive reinforcement of the silo wall. Moreover, such a roof construction itself is relatively expensive, and is labour-intensive with respect to assembly.

[0006] A drawback of the known method for building a reservoir is that the method requires relatively much time, as to that end, relatively many different, and sometimes awkward operations are to be carried out. One awkward operation comprises, for instance, the provision of the roof construction, which, especially when the silo is relatively high, for instance higher than 2 meters, costs much time and manpower.

[0007] The present invention contemplates an improvement of a method for building a reservoir. In particular, the invention contemplates a method with which a reservoir can be provided relatively rapidly, inexpensively and with relatively little manpower, while it is preferred that a content of the reservoir obtained with the method can be protected well against pollution. The invention further contemplates an improvement of a reservoir, and in particular a relatively inexpensive reservoir, whose content can be protected against pollution in a proper and simple manner.

[0008] To this end, the method according to the invention is characterized in that the method comprises:

- determining the reservoir ground surface;
- placing on this ground surface a substantially closed bag of flexible material, while during use, a space surrounded by the bag forms a storage volume that can be filled with the solids and/or liquids mentioned; and
- providing at least one supporting side wall extending

upwards from an edge of the ground surface, for supporting, during use, an adjoining side of the bag.

[0009] Thus, in a particularly simple manner, a relatively sturdy reservoir can be obtained, wherein this bag can form a substantially closed, for instance substantially air-tightly or fluid-tightly closed-off storage space. Building the reservoir can furthermore be carried out with little manpower. The bag can simply be manufactured from, for instance, one or more flexible foils so that the bag can be of relatively light and inexpensive design, as can the reservoir provided by the present invention. Use of this foil is further relatively favorable with regard to maintenance, replacement and the like.

[0010] The method can be carried out in different manners. For instance, first, the ground surface can be determined by delimiting, or measuring out such a surface on the ground, by setting up the supporting side wall on a suitable underground, by setting up the flexible bag on a suitable underground and/or by a combination of these and other methods. The supporting side wall may have dimensions such that, with the wall, automatically, a desired reservoir ground surface can be delimited by setting up the wall. Also, the flexible bag itself may already be provided with a bag bottom with desired dimensions of reservoir ground surface.

[0011] Prior to, during, or after setting up the substantially closed bag, the supporting side wall can be placed. The side wall gives support to the bag when, during use, the bag is filled with, for instance, liquids, solids or the like. In particular, the support wall can prevent the bag from expanding under the influence of hydrostatic forces applied to the bag under the influence of a filling.

[0012] According to an advantageous elaboration of the invention, after placement on the ground surface, the bag is initially in a first position, in which first position the bag surrounds a relatively small storage volume, while thereupon, the bag can be brought to a second position for providing a larger storage volume.

[0013] The small storage volume can, for instance, be approximately 0 m³ or another small volume. In this manner, a bag can be used which, initially, takes up little space. Such a bag can be easily handled and requires little transport space and/or storage space. For the purpose of use, the bag can then be brought to a second position, for providing a desired, relatively large storage volume. Preferably, the bag is brought to a maximum, second, position, and is then held in this maximum position. According to an advantageous elaboration of the invention, the bag can for instance simply be pumped up to a second position, utilizing, for instance, the ambient air. When using a relatively large bag, for instance first, at least more than approximately 10 m³ of air can be pumped into the bag for pumping up the bag to a desired storage volume. Then, the storage volume can be filled, at least partly, with a desired content, for instance water and/or one or more other materials, substances or matter. Thus, the reservoir comprises, for instance, a flexible,

inflatable, substantially closed reservoir.

[0014] According to one aspect of the invention, the bag can be formed such that a reservoir covering provided by the bag is substantially convex in a direction away from the ground surface. By maintaining the upper side of the bag substantially convex in a direction away from the ground surface, rain water, snow, branches, leaves, pollution and/or the like can flow or slide from an upper side of the reservoir covering, and such matters can thus be prevented from accumulating on the cover, which could lead to, for instance, damage to the flexible bag. Maintaining the upper side of the flexible bag advantageously convex in the direction away from the reservoir ground surface can be carried out relatively easily while tearing of the bag can be properly avoided. However, the bag upper side can also be maintained convex in other manners. The upper side may comprise a convexity, be somewhat conical and/or have a combination of these or other shapes. This depends, inter alia, on the design of the bag as such, and on the means for holding the bag in the desired shape.

[0015] Further, the bag can be coupled to the supporting side wall, for instance simply to an outside of this side wall remote from the storage volume, by means of one or more tensioning connections and/or in another manner. As a result, the flexible bag can be pulled tight in a position of use.

[0016] According to one aspect of the invention, a reservoir is provided with:

- a ground surface;
- a substantially closed bag placed on the ground surface and manufactured from flexible material, while, during use, a storage volume surrounded by the bag can be filled with one or more solids and/or liquids; and
- at least one supporting side wall, extending away from the ground surface, designed for supporting, during use, an adjoining bag side.

[0017] This reservoir can provide the above-mentioned advantages. The flexible bag can provide a substantially closed, for instance substantially watertight storage volume. The bag can screen the content well from an environment, for instance to prevent pollution of this content. Here, the reservoir can be used as a drinking water reservoir. Preferably, an upper part of the bag is maintained convex to prevent accumulation of pollution on the reservoir. As stated, it is preferred that the bag is made of one or more foils, for instance one or more plastic foils. Here, an upper part of the bag is preferably manufactured from reinforced foil to provide a strong covering of the reservoir content while a remaining part of the bag is manufactured in particular from non-reinforced foil.

[0018] A bottom part of the bag can for instance form a substantially liquid-tight inside liner of the bottom of the reservoir. A side part of the bag can form a substantially liquid-tight inside liner of the at least one supporting side

wall of the reservoir. An upper part of the bag can form a substantially liquid-tight covering of the reservoir, or at least of the storage space.

[0019] In an advantageous manner, the reservoir can be provided with at least one pump for supplying air via at least one air supply to the storage space surrounded by the bag, for instance for pumping up the bag and/or maintaining an upper part of the bag convex.

[0020] A further aspect of the invention provides a bag of a reservoir according to the invention, providing the above-mentioned advantages. The invention further provides the use of a reservoir according to one of claims 13 - 24 for storing one or more substances, for instance solids and/or liquids, for instance water.

[0021] The present invention further relates to an assembly which is characterized by the features of claims 28.

[0022] The assembly is at least provided with one supporting side wall and at least one bag. The assembly is evidently intended for use in a method according to the invention and/or for the purpose of building a reservoir according to be invention therewith. The assembly as such takes up little space and can therefore be stored and transported relatively easily. Further, the assembly can be provided with relatively few parts, which renders the assembly inexpensive and easily and rapidly mountable.

[0023] According to the invention, it is further advantageous when an inside liner or lining of a reservoir is manufactured, by providing the inside liner integrally with a bottom part and a side part, the inside liner also being integrally provided with an upper part while the bottom part, side part and upper part are each preferably manufactured from one or more foils. Such an inside liner forms, for instance, a bag mentioned hereinabove.

[0024] Further elaborations of the invention are described in the subclaims. Presently, the invention will be clarified with reference to an exemplary embodiment and the drawing. In the drawing:

Fig. 1 shows a cutaway perspective drawing of a first exemplary embodiment of a reservoir according to the invention;

Fig. 2 shows a detail Q of the drawing represented in Fig. 1;

Fig. 3 schematically shows a vertical cross-section of a second exemplary embodiment of a reservoir according to the invention;

Fig. 4 shows a first step of an exemplary embodiment of a method according to the invention;

Fig. 5 shows a second step of an exemplary embodiment of a method according to the invention; and

Fig. 6 shows a third step of an exemplary embodiment of a method according to the invention.

[0025] In the present application, identical or corresponding features are indicated with identical corresponding with reference numerals.

[0026] Figs. 1 - 2 show a first exemplary embodiment of a reservoir 1. The exemplary embodiment represented in Fig. 1 is, in particular, a storage tank such as a silo for storing water, set up on an underground G. Figs. 4 - 6, which will be described further onwards, show a method for building, at least setting up, the reservoir represented in Fig. 1.

[0027] The reservoir represented in Fig. 1 is provided with a ground surface B and a substantially closed storage bag 2 manufactured from flexible material, placed on the ground surface B. The bag 2 can for instance be closed substantially air-tightly or fluid-tightly, or at least be closable in an air-tight or liquid-tight manner, to simplify pumping up the bag 2 (see below). The bag 2 can also be designed to be elastic or somewhat elastic, but this is not required. In the exemplary embodiment, the bag 2 is substantially cylindrical, with a convex upper side and a substantially flat bottom (see Fig. 1 and Fig. 2). The ground surface B simply comprises a delimited part of a top surface of the underground G.

[0028] During use, a storage volume 9 surrounded by the bag 2 can be filled with one or more solids and/or liquids. A maximum storage volume 9 of the bag can, for instance, be larger than approximately 10 m^3 , for instance approximately 50 m^3 or more. The bag 2 may be provided with a substantially circular or oval bottom 2d, while a diameter D (see Figs. 1, 4 - 5) of the bag bottom 2d is for instance greater than approximately 1 meter, such as a diameter D in the range of at least approximately 1 or approximately 2 meters, up to and including approximately 25 meters, or a greater diameter D.

[0029] Moreover, the reservoir 1 comprises a supporting side wall 5 extending away from the ground surface B, designed for supporting, during use, an adjoining bag side of the bag 2. The side wall 5 can be designed in various manners. The exemplary embodiment is provided with a substantially cylindrical, undulating side wall 5. The diameter of the side wall 5 is preferably substantially equal to the diameter D of the bag bottom 2d. A height H of the side wall 5 (see Fig. 4) can, for instance, be approximately 2 meters or more. As shown in Fig. 1, the side 2b of the bag 2 is at least as high as the side wall 5. The supporting side wall 5 can simply consist of, for instance, a number of wall parts coupled together which are manufactured from one or more metals and/or alloys.

[0030] The present invention is, for instance, very advantageous for setting up relatively voluminous tanks, having a medium-sized diameter of approximately 5 m or more, for instance a diameter of approximately 10 - 25 m.

[0031] As shown in Fig. 2, the side wall 5 may be provided with a protective layer 6, which, after mounting, extends at least between an outside of the storage bag 2 and the inside of the side wall 5 for protecting the bag 2 from damage and the like. Such a protective layer 6 can for instance comprise one or more blankets, foils, covers and/or the like. As shown in Fig. 2, such a protective layer 6 can for instance be coupled to this side

wall 5 on or near an upper edge of the supporting side wall 5, which can be achieved by means of various coupling means.

[0032] Preferably, the storage bag 2 is manufactured from one or more flexible foils. As a result, the bag 2 can be designed to be relatively light-weight, but yet sufficiently strong and flexible.

[0033] Preferably, an upper part 2a of the bag 2 forms a substantially liquid-tight covering, hood or roof of the reservoir 1. In this manner, the storage bag itself can form the roof of the reservoir 1, so that use of a separate covering is superfluous. The bottom part 2d of the bag 2 can simply form a substantially liquid-tight inside liner (lining) of the bottom of the reservoir 1. A side part 2b of the bag 2, extending between the upper bag part 2a and bottom part 2d can then form a substantially liquid-tight inside liner of the reservoir 1. Thus, in a simple and inexpensive manner, the bag 2 can provide a substantially water-tight closure of the storage volume 9.

[0034] The storage bag 2 can be made in different manners, for instance from one piece, or otherwise. These bag parts 2a, 2b, 2d can be integrally, uninterruptedly connected to each other in different ways, by means of, for instance, glue connections, welding connections, melt connections and/or in a different manner. As shown in Fig. 2, an upper edge of the side part 2b of the bag 2 is connected, for instance, in a connecting zone 2c, to an underside of the covering part 2a of the bag in a substantially air-tight and dirt-tight manner.

[0035] Further, the upper part 2a of the bag 2 can for instance be manufactured from a reinforced foil. It will be clear to the skilled person how a reinforced foil may be designed, for instance as a fiber-reinforced foil, a multi-layer foil, a relatively thick foil, and/or as a foil which, itself, is manufactured from a relatively strong foil material, or in a different manner. A remaining part of the bag is manufactured from, for instance, non-reinforced foil. In this manner, the upper part 2a of the bag can be of sturdy design, to protect itself against, for instance, damage, such as damage resulting from falling branches or hail. The reinforced upper part 2a of the bag 2 can further protect the content of the reservoir 1 well against pollution. In addition, the reinforced foil upper part 2a is particularly well resistant against relatively high inside pressures which, during use, can be applied thereon, at least by the excess pressure from the storage volume 9.

[0036] As shown in Fig. 1, the reservoir can be provided at, for instance, an underside, with one or more feed-throughs 12, extending through the bottom 2d of the bag 2. The feed-through 12 comprises a duct for supplying water or other matter to, or discharge it from the inside space 9 of the silo. The reservoir represented in Figs. 1-2 is relatively simple, light-weight, easy to install and relatively inexpensive. Naturally, the reservoir 1 can also be designed differently, within the framework of the present invention.

[0037] In one aspect of the invention, the reservoir 1 is provided with means 3, 4 for maintaining the upper

part 2a of the bag 2 substantially convex, for instance rounded, in a direction away from the ground surface B. By maintaining the upper part 2a of the foil bag 2 substantially convex in the direction away from the ground surface B, rain water, snow, branches, leaves, dirt and/or the like can flow or slide away from a top side of the foil, and such matters are prevented from accumulating on the foil, which could lead to, for instance, damage to the foil. Maintaining the foil advantageously rounded, in the direction away from the inside space, can be carried out relatively easily, while tearing of the foil can be properly avoided. However, the roof part 2a of the bag 2 can also be formed to be convex in a different manner.

[0038] The means for maintaining the upper part 2a of the bag 2 convex can be designed in various manners. In the exemplary embodiment of Fig. 1, these means comprise a pump 3 for supplying air, via an air supply 4, to the storage space 9 surrounded by the bag 2. Through the use of these pumping means 3, 4, when the reservoir is-being built, the bag can furthermore be pumped up, see hereinbelow. The pump 3 can be designed in various manners, for instance as a fan. In the first exemplary embodiment, the air supply 4 is separated from the feed-through 12 mentioned. Alternatively, the air supply and the feed-through may be combined with each other.

[0039] The storage bag 2 can be coupled to, for instance, the supporting side wall 5 in various manners. As shown in Figs. 1 and 2, the bag 2 is thereto integrally provided with a seam 2e which can be coupled to, for instance, an outside of the supporting side wall 5. In the present exemplary embodiment, the seam 2e simply comprises an integral, lengthened part of the upper bag part 2a. Preferably, the side flap 2e is also manufactured from a reinforced foil. Coupling between the seam 2e and the supporting side wall 5 can be arranged in different manners, for instance by means of nut/bolt connections 8 (see Fig. 2), of by means of snap connections, clamping connections, press-stud connections, ropes, tensioning connections and/or other coupling means. Preferably, the seam 2e is stretched relatively tightly to the side wall by these coupling means.

[0040] As further shown in Fig. 1, the roof part 2a of the bag 2 may be provided with one or more manholes 11 (one of which is represented), which can be closed off by flaps 12 or the like in a substantially air-tight and dirt-tight manner, so that access to the reservoir inside space 9 can be obtained for, for instance, inspection of this space. In this case, during normal use, the upper side of the reservoir 1, at least the upper bag part 2a, is preferably closed substantially air-tightly or uninterruptedly, but, if desired, can be temporarily opened via a man-hole 11.

[0041] Fig. 3 shows a second exemplary embodiment of the invention, distinguished from the exemplary embodiment shown in Fig. 1 in that at least one support side wall simply comprises an inside wall 105 of a reservoir cavity provided in a bottom G. In Fig. 3, the reservoir is completely sunken into the ground G, and comprises, for

instance, a basin 101. The basin 101 is provided with a flexible bag 102, arranged in the cavity. An upper part 102a of the bag 102 completely covers the inside space 109 of the basin 101 at an upper side. The basin 101 is further provided with air supply means comprising a pump 103 and a supply duct 104 coupled thereto, for supplying air to the inside space 109 of the basin 101 such that the bag 102 can be pumped up and can be maintained convex substantially under the influence of excess pressure/air pressure. A supply and/or discharge duct to, thereupon, supply to and/or discharge matter from the storage volume 109 of the reservoir 101 is not represented in Fig. 3.

[0042] Figs. 4-6 schematically show a method according to the invention, with which for instance the reservoir represented in Fig. 1 can be built. The method comprises:

- determining a reservoir ground surface;
- placing on this ground surface a substantially closed bag of flexible material, while, during use, a space surrounded by the bag forms a storage volume which can be filled with solids and/or liquids; and
- providing at least one supporting side wall extending upwards from an edge of the ground surface, for supporting, during use, an adjoining side of the bag.

[0043] Various steps of the method can be carried out in different orders. One possible order is shown in Figs. 4 - 6. As shown in Fig. 4, first, for instance, the cylindrical supporting side wall 5 can be set up on a reservoir ground surface B of the underground G. Here, the side wall 5 extends upwards from an edge of this ground surface B. In this manner, automatically, a desired reservoir ground surface B is delimited from a further, neighbouring ground surface. The supporting side wall can for instance be built up from one or more wall parts. Alternatively, the supporting side wall may be formed by an inside of a reservoir cavity provided in a bottom, which is represented in Fig. 3.

[0044] As shown in Fig. 5, then, a flexible bag 2 can be laid on the reservoir surface B delimited by the side wall 5. Here, the bag 2 is still in a first position, not pumped-up. In this position, the bag 2 has a relatively small storage volume, for instance approximately 0 m³.

[0045] Thereupon, the bag 2 can be provided with, or connected to a fluid supply duct for supplying ambient air to, or discharging it from the bag 2. In particular, the bag 2 can be connected to pumping means, for pumping up the bag 2 with ambient air to the second position shown in Figs 1, 2 and 6 and maintaining it in that position. In this second position, the bag 2 has completely expanded along the inside of the side wall 5 and can provide a large storage volume 9. The side wall 5 prevents expansion of the flexible bag 2, at least in horizontal direction. In this manner, the flexible bag is inflated to a position such that the bottom part 2d of the bag 2 extends over the entire reservoir ground surface B, and that the side 2b of the bag 2 extends along the entire at least one supporting side wall 5. An air supply duct 4 for pumping

up is schematically represented in Fig. 6. Depending on the dimensions of the reservoir 1, for instance at least 10 m³ of air may be required for pumping up the storage bag 2 to the second position.

[0046] After pumping up the bag 2, the seam 2e of the bag 2 can be tightened to the outside of the side wall 5, remote from the storage volume 9 by means of, for instance, one or more tensioning connections. This is indicated with arrows t in Fig. 6.

[0047] Thereupon, the storage volume 9 can be filled with, for instance, one or more liquids, for instance water, and/or solids.

[0048] An advantage of the exemplary embodiments described is that the reservoir 1, 101, can be built up relatively simply and rapidly, with little manpower. For instance, no separate tarpaulin needs to be provided over the silo represented in Fig. 1 for screening the silo content from an environment. The pumped up bag 2, 102 can provide such a screening itself. Simultaneously, the bag 2, 102 provides a suitable inner lining of the reservoir 1, 101. Use of the invention is for instance particularly advantageous with relatively high silos 1, or relatively deep basins 101, with side walls being approximately 3 - 5 metres high, or more. In addition, the invention is favorable in view of transport and storage of the reservoir.

[0049] It is self evident that the invention is not limited to the exemplary embodiments described. Various modifications are possible within the framework of the invention as set forth in the following claims.

[0050] Features of the different exemplary embodiments mentioned and described may be combined with each other in various manners.

[0051] In addition, the storage volume of the reservoir 1, 101 can for instance be in the range of approximately 50 - 2,000 m³, or in a different range.

[0052] Further, for instance more than one bag that can be pumped up can be used, for instance side by side, for building one reservoir within the context of the present invention. The different bags can then be disposed on the reservoir floor surface, and subsequently be pumped up for providing different partial storage volumes, separated from each other.

[0053] In addition, the reservoir can be employed for various uses, for instance for water storage in horticulture, for drinking water storage or for other uses.

[0054] The reservoir ground surface can comprise various surfaces, for instance a soil surface, wooden surface, concrete surface, a surface already provided with a water-tight covering before the flexible bag is mounted thereon, and a combination of these or other surfaces.

[0055] Pumping up, or bringing a bag to a second position, can be carried out simply with for instance air, and/or by means of one or more other fluids. Moreover, the bag may first be at least partly filled with a content to be stored therein, before the bag is pumped up further.

[0056] A foil of the bag 2, 102 can for instance be provided with one or more coatings, for instance water resistant coating, a UV-resistant coating and/or the like.

Each foil can be built up from one or more layers. Preferably, the upper part 2a of the bag 2 is of substantially smooth design, so that matters can easily slide off with this upper part 2a in a convex position.

[0057] Furthermore, the reservoir itself can have various shapes and/or dimensions.

[0058] Further, the reservoir 1, 101 can be placed entirely on, or partly or entirely in a bottom, underground or the like. The reservoir can for instance be sunken into a bottom for instance for forming a basin.

[0059] A supporting side wall of the reservoir can be manufactured from different materials, for instance concrete, plastic, metal and/or the like. The side wall can for instance comprise a relatively thin metal, alloy, steel and/or the like. In addition, the side wall of the reservoir can for instance be formed by a part of a dug-out cavity provided in an underground.

[0060] The pumping means mentioned for pumping up the bag can be designed in different manners, and be provided with, for instance, detection means arranged for measuring the pressure in the bag, and/or be arranged for detecting the position of the bag.

Claims

1. A method for building a reservoir (1; 101) for one or more solids and/or liquids, for instance a silo or basin for the storage of water, comprising:

- determining a reservoir ground surface (B);
- placing on said reservoir ground surface (B) a substantially closed bag (2; 102) of flexible material, while, during use, a space surrounded by the bag (2; 102) forms a storage volume (9; 109) which can be filled with said solids and/or liquids; and
- providing at least one supporting side wall (5; 105) extending upwards from an edge of said reservoir ground surface (B), for supporting, during use, an adjoining side (2b; 102b) of said bag (2; 102).

2. A method according to claim 1, wherein, after placement on the ground surface (B), said bag (2; 102) is initially in a first position, in which first position the bag has a relatively small storage volume, while the bag is then brought to a second position to provide a larger storage volume (9).

3. A method according to claim 2, wherein said flexible bag (2; 102) is brought to a second position such that a bottom part (2a; 102a) of the bag (2; 102) extends over the entire reservoir ground surface (B), and that a side (2b; 102b) of the bag extends along the entire at least one supporting side wall (5; 105).

4. A method according to any one of the preceding

claims, wherein a substantially closed upper part (2a; 102a) of the bag forms a covering of the reservoir (1; 101).

5. A method according to claim 4, wherein the bag (2; 102) is formed such that the reservoir covering (2a; 102a) provided by the bag is substantially convex in a direction away from the ground surface (B).
6. A method according to any one of the preceding claims, wherein said substantially closed bag (2; 102) is inflated from a first position to a second position, the bag surrounding a larger storage volume in the second position than in the first position.
7. A method according to claim 6, wherein the bag (2; 102) is inflated utilizing ambient air.
8. A method according to any one of the preceding claims, wherein the bag (2) is coupled to an outside of said at least one side wall (5) remote from the storage volume, by means of, for instance, one or more tensioning connections (8).
9. A method according to any one of the preceding claims, wherein at least said bag (2; 102) is provided with, or connected to at least one fluid supply and/or discharge duct (4, 12; 104) for supplying fluid to and/or discharging it therefrom.
10. A method according to any one of the preceding claims, wherein said at least one supporting side wall (5) is built up by one or more wall parts.
11. A method according to any one of the preceding claims, wherein said at least one supporting side wall (105) is formed by an inside of a reservoir cavity provided in a bottom.
12. A method according to any one of the preceding claims, wherein first, at least more than 10 m³ of air is pumped into said bag (2; 102) for pumping up the bag to said storage volume (9; 109), while thereupon, the storage volume (9; 109) is filled, at least partly, with a desired content.
13. A reservoir, for instance a reservoir (1; 101) which is built with a method according to any one of the claims 1- 12, wherein the reservoir is provided with:
 - a ground surface (B);
 - at least one substantially closed bag (2; 102) placed on the ground surface (B) and manufactured from flexible material, while, during use, a storage volume (9; 109) surrounded by the bag (2; 102) can be filled with one or more solids and/or liquids; and
 - at least one supporting side wall (5; 105) ex-

tending away from the ground surface, designed for supporting, during use, an adjoining bag side (2b; 102b).

14. A reservoir according to claim 13, wherein a bottom part (2d; 102d) of the bag forms a substantially liquid-tight inside liner of the bottom of the reservoir.
15. A reservoir according to claim 13 or 14, wherein a side part (2b; 102b) of the bag forms a substantially liquid-tight inside liner of the at least one supporting side wall of the reservoir.
16. A reservoir according to any one of claims 13 - 15, wherein an upper part (2a; 102a) of the bag forms a substantially liquid-tight covering of the reservoir.
17. A reservoir according to claim 16, provided with means (3, 4; 103, 104) for maintaining the upper part (2a; 102a) of the bag substantially convex, for instance rounded, in a direction away from said ground surface (B).
18. A reservoir according to any one of claims 13 - 17, wherein the bag (2; 102) is manufactured from one or more flexible foils.
19. A reservoir according to claims 16 and 18, wherein the upper part (2a; 102a) of the bag is manufactured from reinforced foil, while a remaining part (2b, 2d; 102b, 102d) of the bag is preferably manufactured from non-reinforced foil.
20. A reservoir according to any one of claims 13 - 19, provided with at least one pump (3) for supplying air via at least one air supply (4) to the storage space surrounded by the bag, for instance for pumping up the bag and/or maintaining an upper part of the bag convex.
21. A reservoir according to any one of claims 13 - 20, wherein a maximum storage volume (9; 102) of said bag is larger than approximately 50 m³.
22. A reservoir according to any one of claims 13 - 21, wherein said bag is provided with a substantially circular or oval bottom (2d; 102d), while a diameter of the bag bottom is for instance greater than approximately 1 meter.
23. A reservoir according to any one of claims 13 - 22, wherein said at least one supporting side wall (105) is provided with one or more wall parts which are manufactured from metal or an alloy.
24. A reservoir according to any one of claims 13 - 23, wherein said at least one supporting side wall (105) comprises a side wall of a reservoir cavity provided

in a bottom.

- 25.** A bag of a reservoir of any one of the preceding claims 13 - 24.

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- 26.** A bag, for instance a bag according to claim 25, wherein the bag is evidently intended and suited for serving as inside liner of a reservoir, the bag being integrally provided with a bottom part (2d; 102d), a side part (2b; 102b) and an upper part (2a; 102a) for forming a substantially closed, for instance substantially air-tightly closed-off storage space.

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- 27.** Use of a reservoir according to any one of claims 13 - 24 for storing one or more substances, for instance solids and/or liquids, for instance water.

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- 28.** An assembly, at least provided with one supporting side wall and at least one bag, which assembly is evidently intended for use in a method according to any one of claims 1 - 12 and/or for the purpose of building a reservoir according to any one of claims 13-24 therewith.

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- 29.** A method for manufacturing an inside liner or lining of a reservoir, wherein the lining is integrally provided with a bottom part (2d; 102d) and a side part (2b; 102b), the lining also being integrally provided with an upper part (2a; 102a) for forming a substantially closed, for instance substantially air-tightly closed-off storage space, while said bottom part, side part and upper part are each preferably manufactured from one or more foils, the thus formed inside liner being intended, in particular, for forming a bag according to claim 25 or 26.

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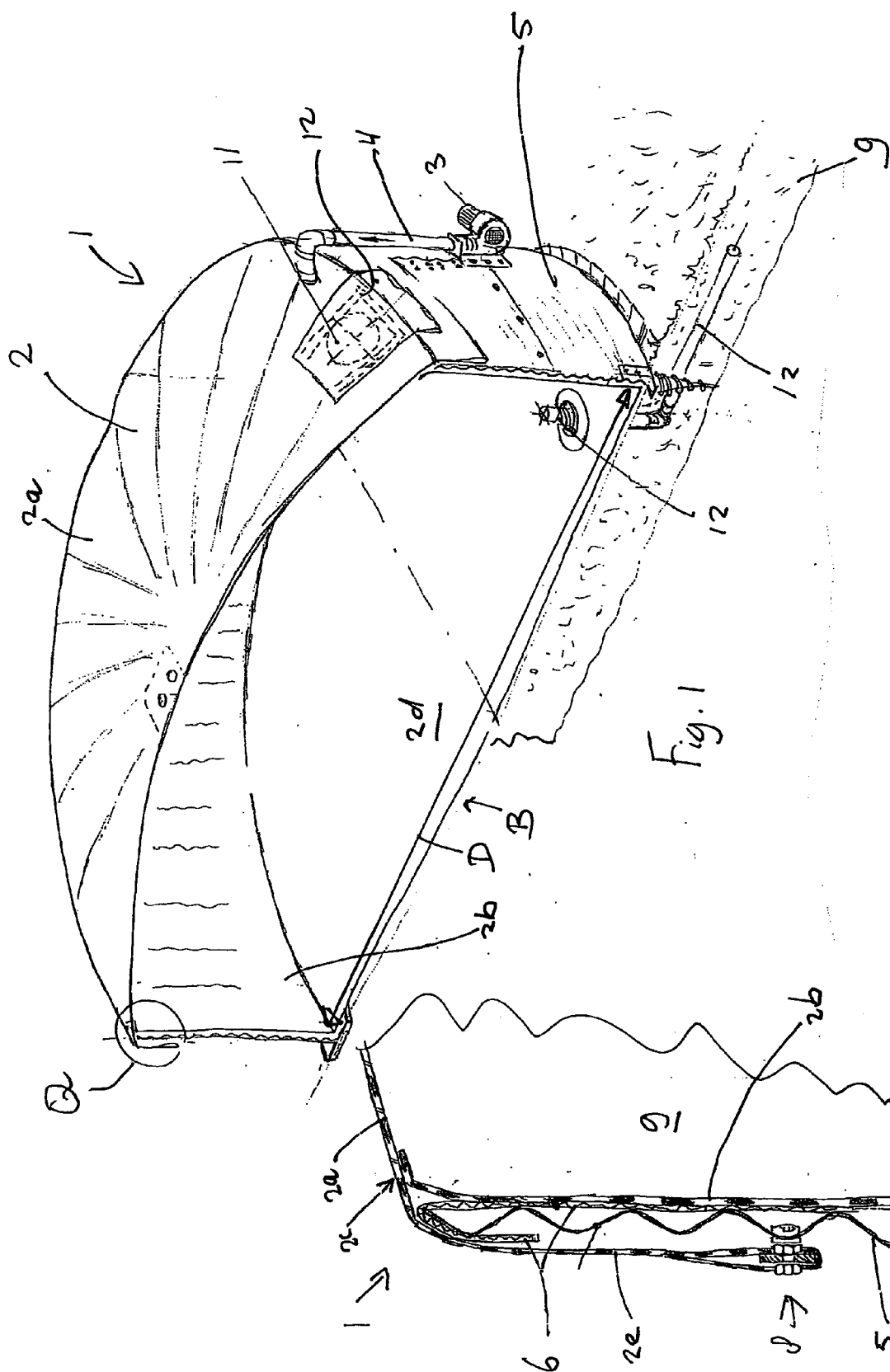
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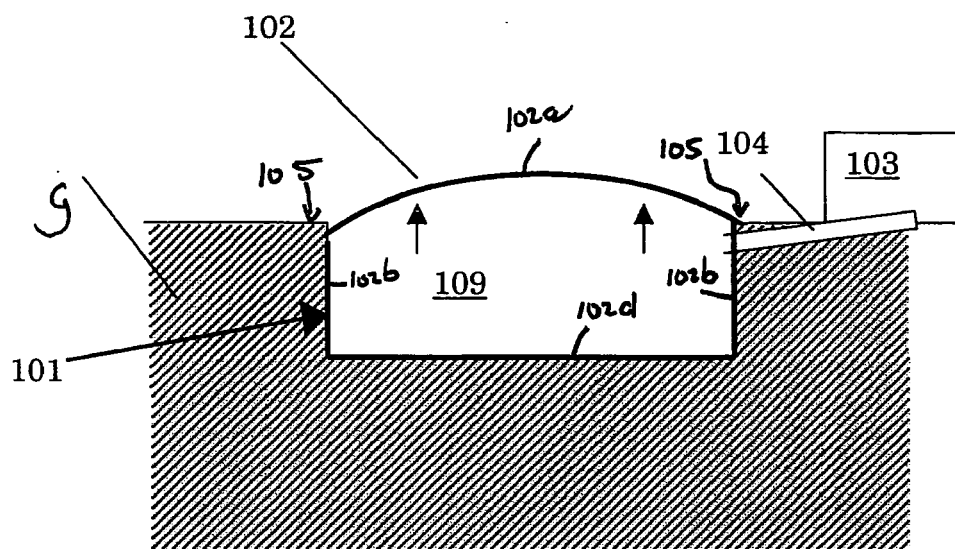


FIG. 3

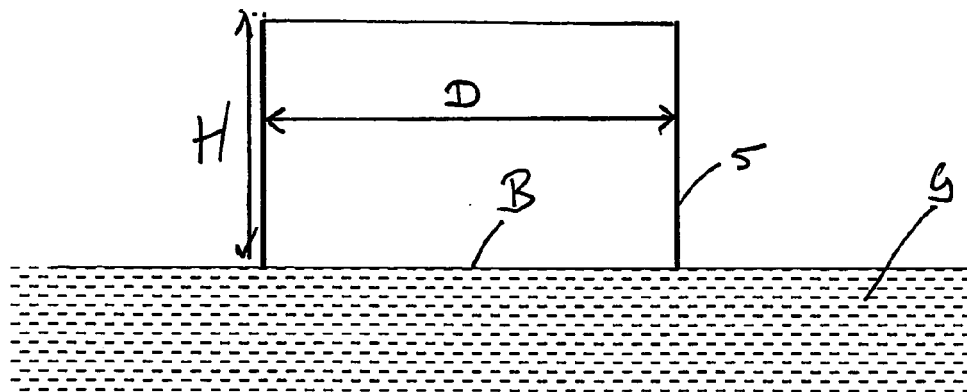


Fig. 4

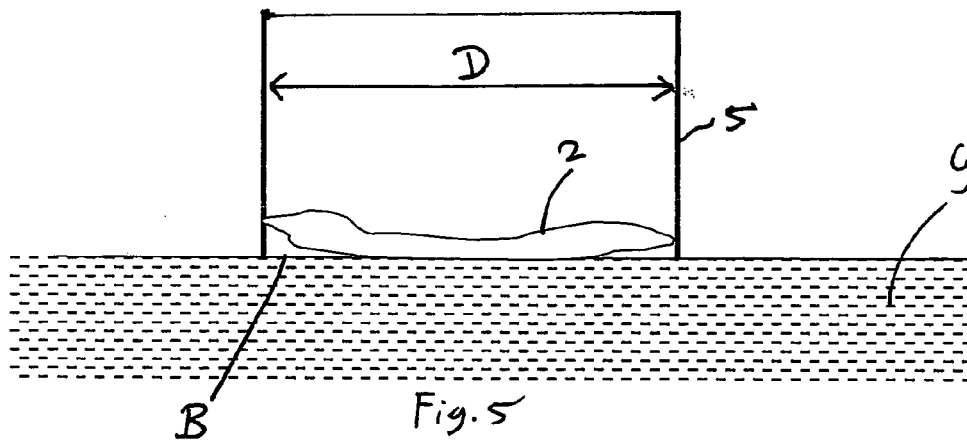


Fig. 5

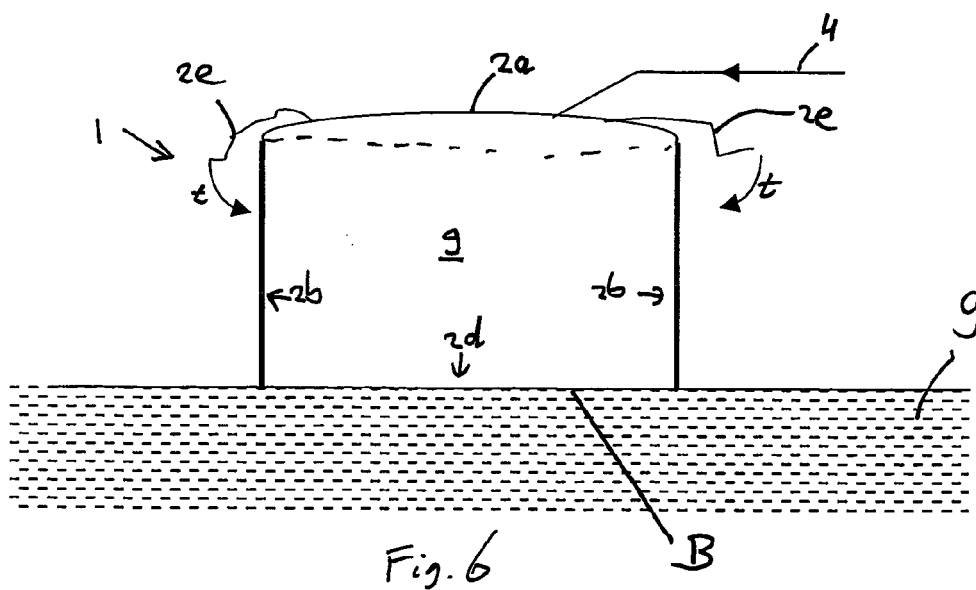


Fig. 6