

(19)



(11)

**EP 3 686 364 B1**

(12)

## EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention of the grant of the patent:  
**16.11.2022 Bulletin 2022/46**

(51) International Patent Classification (IPC):  
**E03F 5/10<sup>(2006.01)</sup>**

(21) Application number: **20153282.7**

(52) Cooperative Patent Classification (CPC):  
**E03F 5/107**

(22) Date of filing: **23.01.2020**

(54) **METHOD FOR BLOCKING DRAINAGE OF WASTE WATER COMPRISING DISSOLVED MATERIAL, DEVICE AND USE OF A FLOATER**

VERFAHREN ZUM BLOCKIEREN DES ABFLUSSES VON ABWASSER MIT GELÖSTEM MATERIAL, VORRICHTUNG UND VERWENDUNG EINES SCHWIMMERS

PROCÉDÉ DE BLOCAGE DE DRAINAGE D'EAUX USÉES COMPRENANT UN MATÉRIAU DISSOUS, DISPOSITIF ET UTILISATION D'UN FLOTTEUR

(84) Designated Contracting States:  
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR**

(30) Priority: **25.01.2019 NL 2022453**

(43) Date of publication of application:  
**29.07.2020 Bulletin 2020/31**

(73) Proprietor: **Aco B.V.**  
**7006 RD Doetinchem (NL)**

(72) Inventor: **Douwenga, Frank**  
**7075 BB Etten (NL)**

(74) Representative: **Kilchert, Jochen**  
**Meissner Bolte Patentanwälte**  
**Rechtsanwälte Partnerschaft mbB**  
**Postfach 86 06 24**  
**81633 München (DE)**

(56) References cited:  
**DE-A1- 10 221 208 US-A- 4 899 774**

**EP 3 686 364 B1**

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

## Description

**[0001]** The invention relates to a method for blocking drainage of waste water comprising a specific concentration of dissolved material. Furthermore, the invention relates to a device, in particular to perform the method according to the invention. A method according to the preamble of claim 1 is known from DE 102 21 208 A1.

**[0002]** Waste water contains several different substances which can cause dangerous conditions at least when a specific concentration of at least one of these different substances is reached or exceeded. One of these substances can be urea. Thus, drainage of waste water which comprises a critical, specific concentration of a specific substance such as urea, into the usual waste water drainage system has to be prevented. Waste water could be rainwater also. Especially in cases that rainwater is running off hard surfaces like streets, roofs etc., the rainwater is very often contaminated and therefore waste water.

**[0003]** Use of floater for providing a temporary blockage of fluid paths is known. E.g. fluid paths can be unblocked by the floater which starts to float as soon as a certain volume of fluid is collected, thereby allowing a fluid path to become unblocked. Thus, bad odors being returned from a drain can be avoided for example.

**[0004]** However, such use of a floater usually depends on the volume of fluid collected inside a housing or the like, but is independent from ingredients or substances comprised by the collected fluid volume.

**[0005]** The above-mentioned DE 102 21 208 A1 discloses a device for the recycling of waste water, that has vessel with an inlet for waste water, a pump arranged within the vessel and a distributor. The pump feeds the waste water through an outlet to the distributor, which is controlled in such a way that, on the one hand, if there is an increased salt concentration, the waste water is fed into a mixing reservoir for reuse or, on the other hand, if there is waste water without increased salt concentration, it is discharged through an outlet. The disadvantage here is that the distributor is a dependently operating mechanism which just works with a control system and therefore comprises a higher complexity.

**[0006]** It is an object of the invention to provide a method for blocking drainage of waste water comprising a specific concentration of dissolved material, in particular of Adblue, whereby the method allows to be easily applied and conductable in a cost-efficient manner. Further, it is an object of the invention to provide a device for blocking drainage of waste water.

**[0007]** According to the present invention a method for blocking drainage of waste water comprising a specific concentration of dissolved material is provided, whereby the method comprises the following steps:

- supplying waste water into a housing through an inlet;
- collecting the waste water within the housing; and

- draining the waste water from the housing through a first outlet, when at least a minimum volume of waste water is collected;

5 whereby drainage of waste water through the first outlet is automatically blocked when the waste water collected inside the housing comprises the specific concentration of dissolved material, and in particular when a minimum volume of waste water is collected within the housing, and whereby a floater begins to float at the specific concentration of dissolved material such that the first outlet can be blocked.

**[0008]** The invention is based on the idea to provide an automatically, self-acting mechanism which is capable of preventing drainage or discharge of fluid which comprises a critical concentration of dissolved material such as urea. Thus, a floater is utilized which is configured to react to the concentration of dissolved material, preferably to the concentration of urea.

**[0009]** Drainage of waste water through the first outlet can be provided when a minimum amount of waste water collected in the housing is reached or exceeded. Thus, at least a minimum volume of waste water is collected and stored within the housing before a drainage or a block of the drainage of the waste water can occur.

**[0010]** According to one embodiment, the specific concentration of dissolved material, causes the waste water to be heavier or lighter than water.

**[0011]** According to a preferred embodiment of the invention, the dissolved material is urea, glycol, alcohol and/or salt.

**[0012]** Preferably, the term dissolved material can specifically be referred to urea in the sense of the present invention. Thus, in particular a specific concentration of urea can be relevant with regard to an automatical blockage of waste water drainage according to the method of the present invention.

**[0013]** Thus, the floater is configured to provide a reaction to a change of, namely an increase of, the concentration of dissolved material. Consequently, a concentration of dissolved material reaching and/or exceeding the predeterminable specific concentration of dissolved material causes the floater to float and to block the first outlet such that waste water comprising at least the specific concentration of dissolved material, in particular of urea, cannot be drained through the first outlet anymore.

**[0014]** The predeterminable, specific concentration of dissolved material can thus be considered as a concentration limit in the context of the present invention. In particular, this concentration limit of dissolved material in terms of the specific concentration is decisive for the drainage of waste water through the first, usual outlet. It can be avoided that waste water being polluted / contaminated with a critical concentration of dissolved material, such as urea or the like, is drained / discharged along the first outlet, preferably representing a usually used drainage system in the sense of the present inven-

tion.

**[0015]** In another embodiment, the specific concentration of dissolved material, in particular of urea, is set to less than 50 %, preferably to 30 %, more preferably to 25%, more preferably to 20%, even more preferably to 10%.

**[0016]** Consequently, the floater is configured to provide blockage of the first outlet at an predeterminable specific concentration of dissolved material.

**[0017]** In a further preferred embodiment of the invention, the floater performs a movement, in particular a linear movement, to block the outlet such that waste water cannot be drained through / along the first outlet.

**[0018]** Thus, the floater can move at least between a blocked state of the first outlet and a release / free state in order to provide a blockage of drainage of waste water temporarily and dependent on the concentration of dissolved material within the collected volume of waste water.

**[0019]** According to one embodiment of the invention, the waste water is drained from the housing through the first outlet when a minimum volume of waste water collected within the housing is reached or exceeded and the concentration of dissolved material is below the specific concentration.

**[0020]** In consequence, the first outlet is arranged such that at least a minimum volume of waste water is collected and stored within the housing. In particular, this minimum amount of waste water represents a certain fluid height within the housing. Preferably, by arranging the first outlet at a certain height along the housing, the minimum volume of waste water to be collected before any drainage of waste water can be achieved, is predeterminable.

**[0021]** In another embodiment of the invention, the waste water is drained through a second outlet when a maximum volume of waste water is collected and the first outlet is at least partially blocked by the floater.

**[0022]** In particular, a second outlet can be arranged along the housing such that a maximum volume of waste water collectable within the housing is predefined, preferably in case of at least a partial blockage of the drainage through the first outlet.

**[0023]** Thus, in case the waste water comprises at least a specific concentration of dissolved material and the first outlet is blocked for drainage consequently, the collected volume of waste water can increase until a maximum volume of waste water is collected within the housing. Drainage of the waste water, collected until a maximum volume is reached and comprising at least the specific concentration of dissolved material, can be drained through the second outlet.

**[0024]** The second outlet is provided as a special fluid path to provide a secure drainage of the polluted / contaminated waste water. Thus, a secure removal of the waste water comprising too much dissolved material is achieved.

**[0025]** Another aspect of the invention is to provide a device for blocking drainage waste water comprising a

specific concentration of dissolved material, whereby the device comprises:

- a housing,
- an inlet such that waste water is introducible into the housing,
- an outlet such that waste water is drainable from the housing, when a minimum volume of waste water collected in the housing is collected or exceeded, and
- a floater,

whereby the floater begins to float and is configured to block the first outlet when the waste water collected in the housing reaches a minimum volume and comprises the specific concentration of dissolved material.

**[0026]** Thus, the floater can be configured to react to the concentration of dissolved material within the collected volume of waste water. Preferably, only if a minimum volume of waste water is collected, the first outlet can be blocked by the floater.

**[0027]** According to another embodiment, the floater is arranged within a frame which is provided in the housing, whereby the floater is replaceable together with the frame as a floater assembly.

**[0028]** In consequence, the floater is exchangeable in an easy and comfortable manner. An option for adjusting the floater to a predeterminable specific concentration of dissolved material is provided.

**[0029]** Preferably, the floater can be provided in combination with a guidance means, e.g. a cage, which is arranged within the frame as well. Thus, the floater is configured to move along a predetermined path, provided by the guidance means, in order to block the first outlet temporarily. Preferably, the guidance means can be provided as a cage, in particular as at least three parallel, longitudinal beams, in order to guide the floater along a linear movement direction.

**[0030]** In a further embodiment, the housing comprises a second outlet which is arranged to provide drainage of waste water collected in the housing when the first outlet is at least partially blocked by the floater.

**[0031]** By arrangement of the second outlet at a height along the housing which exceeds the height of the first outlet, waste water comprising at least the specific concentration of dissolved material can be drained when a maximum volume of waste water is collected and the first outlet is at least partially blocked by the floater.

**[0032]** In the following, the present invention is described in more detail with reference to an embodiment as illustrated by the enclosed Figures.

**[0033]** It is shown:

- Fig. 1 a perspective illustration of an embodiment of a device according to the present invention;
- Fig. 2 a section view of the device according to Fig. 1, when the first outlet is unblocked;
- Fig. 3 a perspective section view of the device accord-

ing to Fig. 1, when the first outlet is blocked by a floater; and  
 Fig. 4 a detail view of the floater within a frame.

**[0034]** In Fig. 1 a preferred embodiment of the device 1 is illustrated comprising a housing 10.

**[0035]** Furthermore, the device 1 is provided with an inlet 20 and a first outlet 30 arranged along the housing 10. Preferably, the inlet 20 is arranged at a higher height along the housing 10 than the first outlet 30. Thus, fluid, in particular waste water, can be collected within the housing 10 and drained through the first outlet 30 when a minimum volume of fluid 2, reaching to a minimum height, is collected.

**[0036]** According to Fig. 1, the inlet 20 and the first outlet 30 are arranged at opposing sides of the housing 10. However, it is also possible to arrange the inlet 20 and the first outlet at the same side or adjacent sides of the housing 10.

**[0037]** In Fig. 2 a section view of the device 1 according to Fig. 1 is shown when the first outlet 30 is unblocked.

**[0038]** According to Fig. 2, a minimum volume of waste water 2 is collected within the housing 10 such that drainage through the first outlet 30 can be provided, in particular drainage of additional waste water 2 being collected.

**[0039]** Next to the inlet 20, a flow barrier 12 is arranged to provide a controlled inflow of waste water 2 through the inlet 20 into the housing 10.

**[0040]** Further, the floater 40 is in a free state or release state according to Fig. 2 as the minimum volume of collected waste water 2 comprises a concentration of dissolved material which is lower than a predetermined specific concentration of dissolved material. Thus, despite a minimum volume of waste water collected inside the housing 10, the first outlet 30 is unblocked and the collected waste water 2 can be drained through the first outlet 30.

**[0041]** Additionally, according to Fig. 2, the device 1 is provided with a second outlet 32. The second outlet 32 is positioned above the first outlet 30 and preferably above the inlet 20. In case drainage of waste water along the first outlet 10 is blocked by the floater 40, the drainage through the second outlet 32 can be provided. Thus, waste water 2 comprising a concentration of e.g. urea, which is equal to or exceeding the predefinable specific concentration, can be drained in a controlled manner along the second outlet 32 whereas drainage along the usual first outlet 30 is prevented. The second outlet can be considered as a special outlet for draining polluted / contaminated waste water 2.

**[0042]** Furthermore, the floater 40 is arranged within a frame 50 according to Fig. 2. Thus, the floater 40 is easily exchangeable, e.g. to be adaptable to a specific concentration of dissolved material at which drainage of waste water along the first outlet 30 shall be blocked blocked.

**[0043]** In Fig. 3 a perspective section view of the device 1 according to Fig. 1 is illustrated, when the first outlet 30 is blocked by the floater 40. Namely, the floater 40

starts to float when the specific concentration of dissolved material within the collected waste water 2 inside the housing 10 is reached or exceeded.

**[0044]** In particular, the floater 40 provides a fluid tight closure of the first outlet 30 according to Fig. 3. Thus, drainage of waste water 2 along the first outlet 30 is blocked.

**[0045]** Consequently, according to Fig. 3 the waste water 2 will be collected until a maximum volume is reached and the waste water 2 can be drained along the second outlet 32.

**[0046]** In Fig. 4 a detail view of the floater 40 within a frame 50 is shown, particularly in accordance with Fig. 3.

**[0047]** The floater 40 is arranged within the frame 50. In particular, the floater 40 is arranged in combination with a guidance means 42 within the frame 50, whereby the guidance means 42 enables the floater 40 to be movable along a linear movement direction.

**[0048]** In particular, the guidance means 42 is provided with at least three, preferably four, longitudinal beams in order to guide the floater 40 between a free / unblocked / release state and a floating / blocked state, whereby drainage of waste water along the first outlet 30 is blocked. By providing the floater 40, in particular in combination with the guidance means 42, within the frame 50, an easily adaptable solution for different predeterminable specific concentrations of dissolved material within the waste water 2 can be achieved.

**[0049]** In summary, the present invention provides a comfortable and adaptable solution to prevent polluted / contaminated waste water 2, comprising a specific concentration of dissolved material such as urea, to be drained along / through a first outlet 30 of a device 1, and thus along a usually used drainage system.

**[0050]** Consequently, drainage of contaminated waste water 2 can be avoided in a self-acting and passive manner, dependent on the dissolved material concentration of the collected waste water 2.

#### 40 List of reference signs

#### [0051]

|    |                  |
|----|------------------|
| 1  | Device           |
| 2  | Waste water      |
| 10 | Housing          |
| 12 | Flow barrier     |
| 20 | Inlet            |
| 30 | First outlet     |
| 32 | Second outlet    |
| 40 | Floater          |
| 42 | Guidance element |
| 50 | Frame            |

#### 55 Claims

1. Method for blocking drainage of waste water (2) com-

prising a specific concentration of dissolved material, whereby the method comprises the following steps:

- supplying waste water into a housing (10) through an inlet (20);
- collecting the waste water (2) within the housing (10);
- draining the waste water (2) from the housing (10) through a first outlet (30), when at least a minimum volume of waste water (2) is collected, whereby the drainage of waste water (2) through the first outlet (30) is automatically blocked when the waste water (2) collected inside the housing (10) comprises the specific concentration of dissolved material,

**characterized in that**

a floater (40) begins to float at the specific concentration of dissolved material such that the first outlet (30) can be blocked.

**2. Method according to claim 1,**

**characterized in that**

the specific concentration of dissolved material, causes the waste water to be heavier or lighter than water.

**3. Method according to claim 1 or 2,**

**characterized in that**

the dissolved material is urea, glycol, alcohol and/or salt.

**4. Method according to one of the preceding claims,**

**characterized in that**

the specific concentration of dissolved material is set to less than 50 %, preferably to 30 %, more preferably to 25%, more preferably to 20%, more preferably to 10%.

**5. Method according to one of the preceding claims,**

**characterized in that**

the floater (40) performs a movement, in particular a linear movement, to block the outlet (30) such that waste water cannot be drained through the first outlet (30).

**6. Method according to one of the preceding claims,**

**characterized in that**

the waste water (2) is drained from the housing (10) through the first outlet (30) when a minimum volume of waste water (2) collected within the housing (10) is reached and the concentration of dissolved material is below the specific concentration.

**7. Method according to one of the preceding claims,**

**characterized in that**

the waste water (2) is drained through a second outlet (32) when a maximum volume of waste water (2)

is collected and the first outlet (30) is at least partially blocked by the floater (40).

**8. Device (1) for blocking drainage waste water (2) comprising a specific concentration of dissolved material, whereby the device (1) comprises:**

- a housing (10),
- an inlet (20) such that waste water (2) is introducible into the housing (10),
- an outlet (30) such that waste water (2) is drainable from the housing (10), when at least a minimum volume of waste water (2) is collected or exceeded, and
- a floater (40),

whereby the floater (40) begins to float and is configured to block the first outlet (30), when the waste water (2) collected in the housing (10) reaches a minimum volume and comprises the specific concentration of dissolved material.

**9. Device (1) according to claim 8,**

**characterized in that**

the floater (40) is arranged within a frame (50) which is provided in the housing (10), whereby the floater (40) is replaceable together with the frame as a floater assembly.

**10. Device (1) according to claim 8 or 9,**

**characterized in that**

the housing (10) comprises a second outlet (32) which is arranged to provide drainage of waste water (2) collected in the housing (10) when the first outlet (30) is at least partially blocked by the floater (40).

**Patentansprüche**

**1. Verfahren zum Blockieren des Abflusses von Abwasser (2), das eine spezifische Konzentration an gelöstem Material umfasst, wobei das Verfahren die folgenden Schritte umfasst:**

- Zuführen von Abwasser in ein Gehäuse (10) durch einen Einlass (20);
- Sammeln des Abwassers (2) in dem Gehäuse (10);
- Ableiten des Abwassers (2) aus dem Gehäuse (10) durch einen ersten Auslass (30), wenn zumindest ein Mindestvolumen an Abwasser (2) gesammelt ist, wobei das Ableiten von Abwasser (2) durch den ersten Auslass (30) automatisch blockiert wird, wenn das im Gehäuse (10) gesammelte Abwasser (2) eine spezifische Konzentration an gelöstem Material umfasst,

- dadurch gekennzeichnet, dass**  
ein Schwimmer (40) beginnt, bei der spezifischen Konzentration an gelöstem Material zu schwimmen, so dass der erste Auslass (30) blockiert werden kann. 5
2. Verfahren nach Anspruch 1,  
**dadurch gekennzeichnet, dass**  
die spezifische Konzentration an gelöstem Material bewirkt, dass das Abwasser schwerer oder leichter als Wasser ist. 10
3. Verfahren nach Anspruch 1 oder 2,  
**dadurch gekennzeichnet, dass**  
es sich bei dem gelösten Material um Harnstoff, Glykol, Alkohol und/oder Salz handelt. 15
4. Verfahren nach einem der vorhergehenden Ansprüche,  
**dadurch gekennzeichnet, dass**  
die spezifische Konzentration an gelöstem Material auf weniger als 50 %, vorzugsweise auf 30 %, bevorzugter auf 25 %, bevorzugter auf 20 %, bevorzugter auf 10 % eingestellt ist. 20
5. Verfahren nach einem der vorhergehenden Ansprüche,  
**dadurch gekennzeichnet, dass**  
der Schwimmer (40) eine Bewegung, insbesondere eine lineare Bewegung vollzieht, um den Auslass (30) so zu blockieren, dass Abwasser nicht durch den ersten Auslass (30) abgeleitet werden kann. 30
6. Verfahren nach einem der vorhergehenden Ansprüche,  
**dadurch gekennzeichnet, dass**  
das Abwasser (2) aus dem Gehäuse (10) durch den ersten Auslass (30) abgeleitet wird, wenn ein im Gehäuse (10) gesammeltes Mindestvolumen an Abwasser (2) erreicht ist und die Konzentration an gelöstem Material unter der spezifischen Konzentration liegt. 35
7. Verfahren nach einem der vorhergehenden Ansprüche,  
**dadurch gekennzeichnet, dass**  
das Abwasser (2) durch einen zweiten Auslass (32) abgeleitet wird, wenn ein Höchstvolumen an Abwasser (2) gesammelt ist und der erste Auslass (30) zumindest teilweise durch den Schwimmer (40) blockiert wird. 40
8. Vorrichtung (1) zum Blockieren von abgeleitetem Abwasser (2), das eine spezifische Konzentration an gelöstem Material umfasst, wobei die Vorrichtung (1) umfasst: 45
- ein Gehäuse (10),
  - einen Einlass (20), so dass Abwasser (2) in das Gehäuse (10) einleitbar ist,
  - einen Auslass (30), so dass Abwasser (2) aus dem Gehäuse (10) ableitbar ist, wenn zumindest ein Mindestvolumen an Abwasser (2) gesammelt oder überschritten ist, und
  - einen Schwimmer (40),
- wobei der Schwimmer (40) zu schwimmen beginnt und dazu ausgelegt ist, den ersten Auslass (30) zu blockieren, wenn das im Gehäuse (10) gesammelte Abwasser (2) ein Mindestvolumen erreicht und die spezifische Konzentration an gelöstem Material umfasst. 50
9. Vorrichtung (1) nach Anspruch 8,  
**dadurch gekennzeichnet, dass**  
der Schwimmer (40) in einem Rahmen (50) angeordnet ist, der in dem Gehäuse (10) vorgesehen ist, wobei der Schwimmer (40) zusammen mit dem Rahmen als Schwimmerbaugruppe austauschbar ist.
10. Vorrichtung (1) nach Anspruch 8 oder 9,  
**dadurch gekennzeichnet, dass**  
das Gehäuse (10) einen zweiten Auslass (32) umfasst, der angeordnet ist, um für ein Ableiten von im Gehäuse (10) gesammeltem Abwasser (2) zu sorgen, wenn der erste Auslass (30) zumindest teilweise durch den Schwimmer (40) blockiert wird.
- ### Revendications
1. Procédé de blocage de drainage d'eaux usées (2) comprenant une concentration spécifique de matériau dissous, sachant que le procédé comprend les étapes suivantes :
- amenée d'eaux usées dans un boîtier (10) via une entrée (20) ;
  - collecte des eaux usées (2) à l'intérieur du boîtier (10) ;
  - drainage des eaux usées (2) depuis le boîtier (10) via une première sortie (30) lorsqu'au moins un volume minimum d'eaux usées (2) est collecté, sachant que le drainage d'eaux usées (2) via la première sortie (30) est bloqué automatiquement lorsque les eaux usées (2) collectées à l'intérieur du boîtier (10) comprennent la concentration spécifique de matériau dissous,
- caractérisé en ce que**  
un flotteur (40) commence à flotter à la concentration spécifique de matériau dissous afin que la première sortie (30) puisse être bloquée.

2. Procédé selon la revendication 1,  
**caractérisé en ce que**  
la concentration spécifique de matériau dissous fait en sorte que les eaux usées soient plus lourdes ou plus légères que l'eau. 5
3. Procédé selon la revendication 1 ou 2,  
**caractérisé en ce que**  
le matériau dissous est de l'urée, du glycol, de l'alcool et/ou du sel. 10
4. Procédé selon l'une quelconque des revendications précédentes,  
**caractérisé en ce que**  
la concentration spécifique de matériau dissous est réglée pour être inférieure à 50 %, de préférence à 30 %, de manière plus préférentielle à 25 %, de manière plus préférentielle à 20 %, de manière plus préférentielle à 10 %. 15 20
5. Procédé selon l'une quelconque des revendications précédentes,  
**caractérisé en ce que**  
le flotteur (40) effectue un mouvement, en particulier un mouvement linéaire, pour bloquer la sortie (30) de telle sorte que des eaux usées ne puissent être drainées via la première sortie (30). 25
6. Procédé selon l'une quelconque des revendications précédentes,  
**caractérisé en ce que**  
les eaux usées (2) sont drainées depuis le boîtier (10) via la première sortie (30) lorsqu'un volume minimum d'eaux usées (2) collecté à l'intérieur du boîtier (10) est atteint et la concentration de matériau dissous est inférieure à la concentration spécifique. 30 35
7. Procédé selon l'une quelconque des revendications précédentes,  
**caractérisé en ce que**  
les eaux usées (2) sont drainées via une deuxième sortie (32) lorsqu'un volume maximum d'eaux usées (2) est collecté et la première sortie (30) est au moins en partie bloquée par le flotteur (40). 40 45
8. Dispositif (1) de blocage de drainage d'eaux usées (2) comprenant une concentration spécifique de matériau dissous, sachant que le dispositif (1) comprend : 50
- un boîtier (10),
  - une entrée (20) de telle sorte que des eaux usées (2) puissent être introduites dans le boîtier (10),
  - une sortie (30) de telle sorte que des eaux usées (2) puissent être drainées depuis le boîtier (10) lorsqu'au moins un volume minimum d'eaux usées (2) est collecté ou dépassé, et 55
- un flotteur (40),  
sachant que le flotteur (40) commence à flotter et est configuré pour bloquer la première sortie (30) lorsque les eaux usées (2) collectées dans le boîtier (10) atteignent un volume minimum et comprennent la concentration spécifique de matériau dissous.
9. Dispositif (1) selon la revendication 8,  
**caractérisé en ce que**  
le flotteur (40) est agencé à l'intérieur d'un cadre (50) qui est prévu dans le boîtier (10), sachant que le flotteur (40) est remplaçable conjointement avec le cadre comme ensemble flotteur.
10. Dispositif (1) selon la revendication 8 ou 9,  
**caractérisé en ce que**  
le boîtier (10) comprend une deuxième sortie (32) qui est agencée pour fournir un drainage d'eaux usées (2) collectées dans le boîtier (10) lorsque la première sortie (30) est au moins en partie bloquée par le flotteur (40).

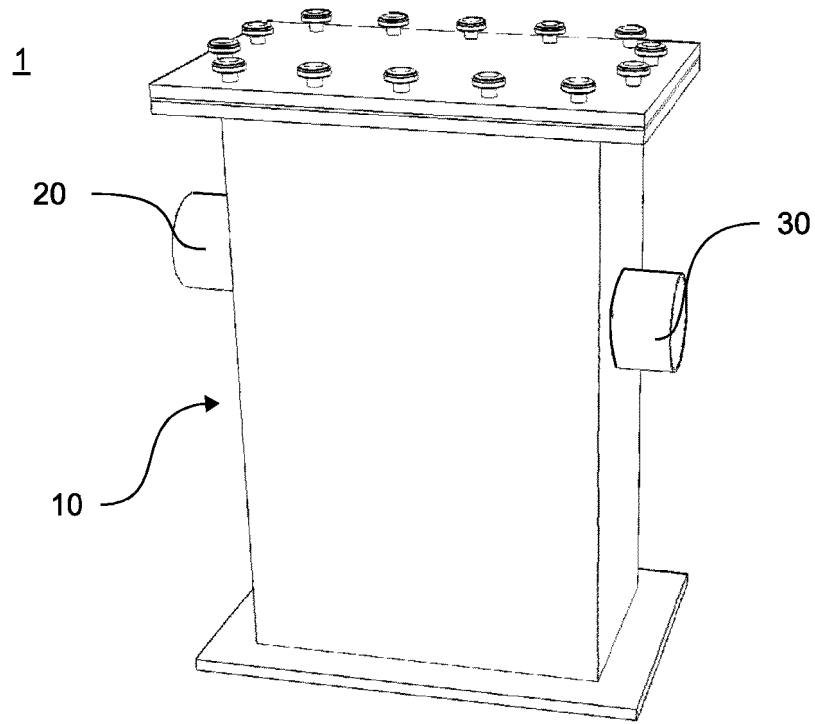


Fig. 1

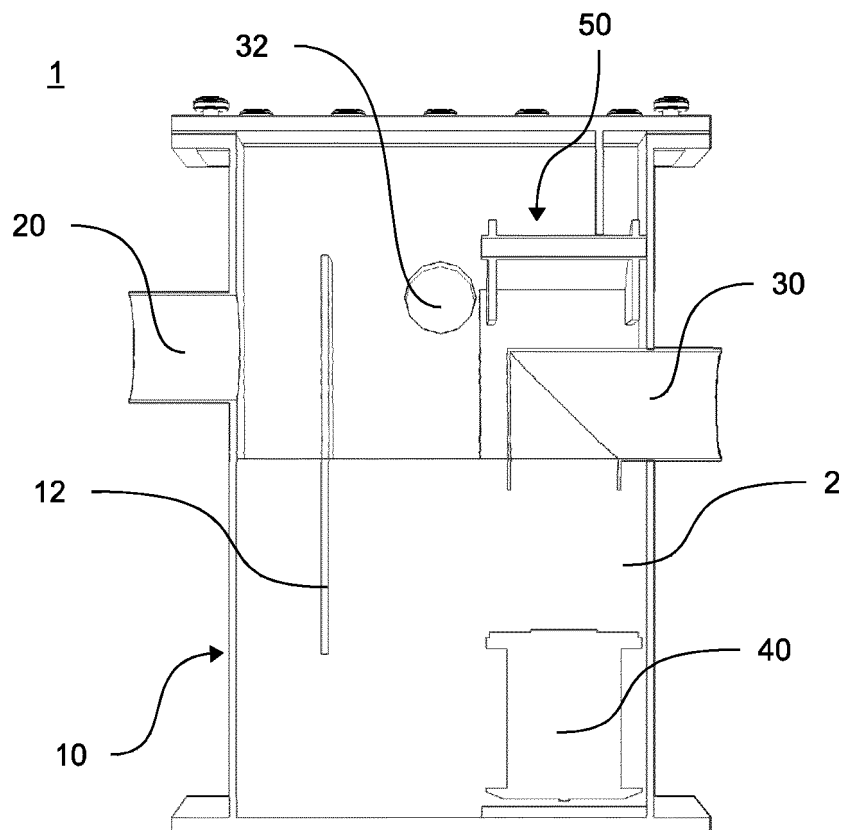


Fig. 2

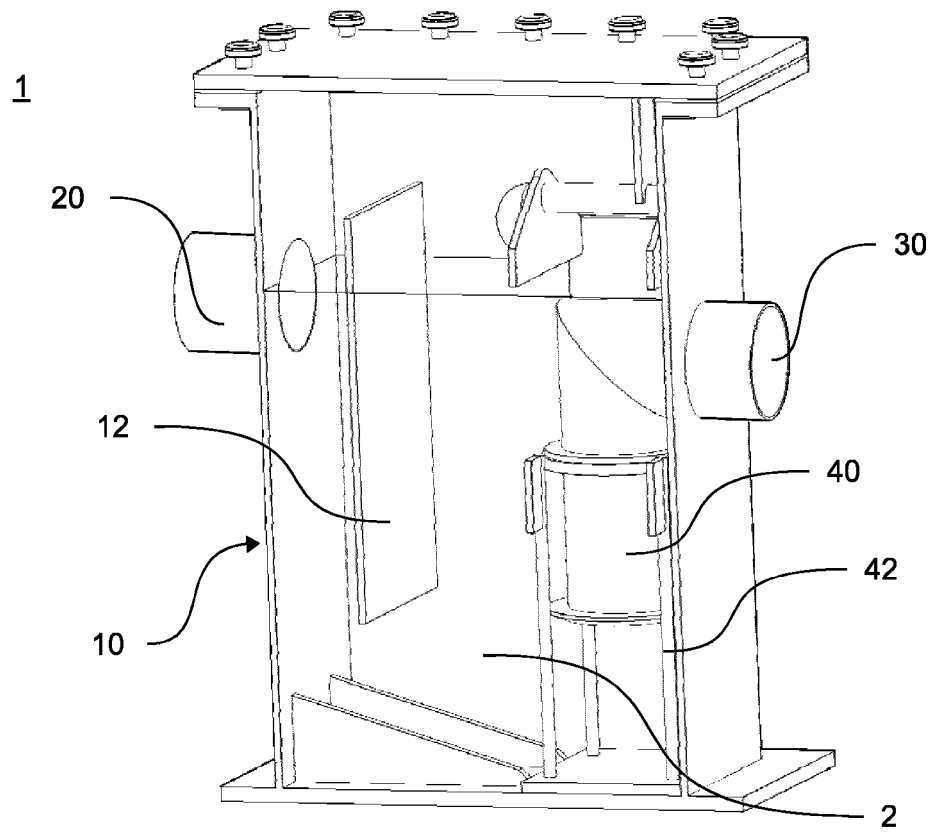


Fig. 3

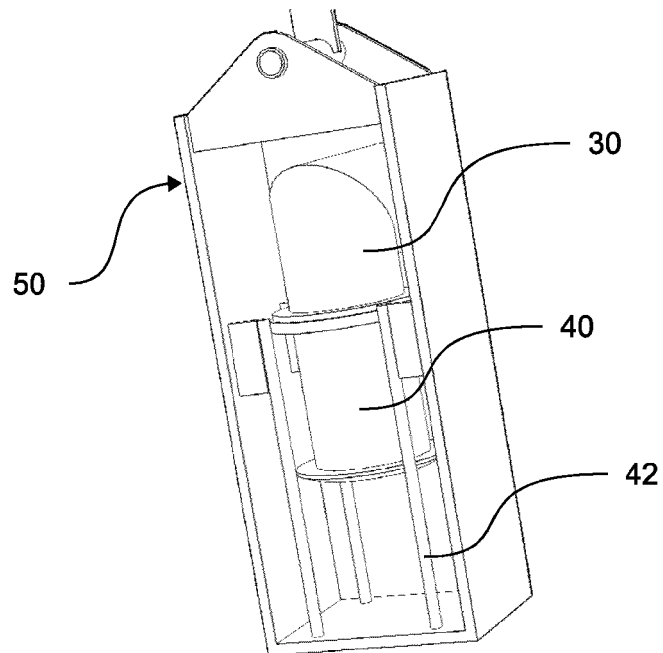


Fig. 4

**REFERENCES CITED IN THE DESCRIPTION**

*This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.*

**Patent documents cited in the description**

- DE 10221208 A1 [0001] [0005]