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(54) **MOP BUCKET**

MOPPEIMER

SEAU DE LAVAGE

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Description

[0001] The present invention refers to a mop bucket, which permits to obtain clean water each time the user wets the mop.

BACKGROUND OF THE INVENTION

[0002] Known mop buckets comprise a drainer, where the mop is wrung each time it is used.

[0003] Now, the mop bucket is filled with clean water, optionally with a cleaning product if it is desired, the mop is placed into the clean water and the mop is wrung before mopping the ground.

[0004] Once the ground has been mopped for the first time, the mop is wetted again in this water, which gets dirty with the dirt in the mop. As it is well-known, this operation is made several times when the ground is mopped, but it only uses clean water the first time, since in the subsequent times the mop is wetted in water that already has been used to mop.

[0005] Another disadvantage of the known mop buckets is the short use of the water, since it is dirty at the second use and, therefore, it is practically indispensable to use a cleaning product. Some attempts to overcome these drawbacks can be seen on US1533021, although not very efficient in practice

DESCRIPTION OF THE INVENTION

[0006] With the mop bucket of the invention it is possible to solve the mentioned disadvantages, presenting other advantages that will be described.

[0007] The mop bucket of the present invention comprises a drainer where a cleaning element is wrung, and it is characterized in that it comprises the features of claim 1.

[0008] Preferably, said drainer comprises a return spring that tends to place said drainer in the rest position.

[0009] Preferably, said first and second deposits are communicated to each other by means of a siphon.

[0010] Advantageously, the mop bucket also comprises a valve to allow or to prevent the passage of the water from the first one to the second deposit.

[0011] This valve comprises, according to a preferred embodiment, a rod linked with a cover of said first deposit, so that the passage of water from the first to the second deposit is allowed only when the cover is placed in its position.

[0012] Preferably, the mop bucket of the present invention also comprises an air conduit provided with a retardation valve of the passage of the water from the first to the second deposit.

[0013] According to a preferred embodiment, this retardation valve is formed by a container provided with an orifice.

[0014] With the mop bucket of the present invention clean water is obtained whenever mop gets wet. This

way, it is sure that the zone that we are going to mop will be totally clean and disinfected.

[0015] The internal operation of the bucket of the present invention is totally mechanic, so that it does not need any type of maintenance nor external power source.

[0016] In addition, the mop bucket of the present invention allows to save water.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] For better understanding of what has been described some drawings- are enclosed, in which, schematically and only as a non-limitative example, a practical case of embodiment is shown.

Fig. 1 is a perspective view of the mop bucket of the present invention;

Fig.2 is a exploded view of the mop bucket of the present invention;

Fig. 3 is a perspective view of the lower part of the mop bucket of the present invention; and

Fig. 4 is a perspective view of a part of the mop bucket of the present invention.

DESCRIPTION OF A PREFERRED EMBODIMENT

[0018] As can be seen in Fig. 1 and 2, the mop bucket of the present invention, identified generally by reference numeral 1, comprises a first deposit 2 of water supply, a second deposit 3 of clean water and a drainer 4 to using a mop.

[0019] The first deposit 2 is provided with a cover 5 and it communicates with the second deposit 3. The function of this first deposit 2 is to accumulate water to supply it when it is necessary to the second deposit. By means of the term "water" in the present description makes reference to any type of suitable liquid to mop, like for example clean water, optionally with a cleaning product.

[0020] The second deposit 3 is communicated with said first deposit 2 and comprises a closing plug 6 at its lower part. This closing plug 6 is vertically movable between a closing position and an opening position, and it is linked with the drainer 4 by means of a connecting rod 7, so that when the mop is wrung this closing plug 6 is placed in its opening position, draining the content of the second deposit 3.

[0021] The drainer 4 is vertically movable between a rest position and a use position, and it comprises a returning spring 8, that tends to place the drainer 4 in this rest position. It is due to the pressure that is made downwards when wringing, and the drainer 4 is placed in the use position against the action of the spring, this movement is transmitted to the closing plug 6 through the connecting rod 7.

[0022] The first 2 and second 3 deposits are communicated to each other by means of a siphon 12, so that the air intake is avoided from the second 3 to the first 2 deposits.

[0023] In order to allow or to prevent the passage of the water from the first 2 to the second 3 deposits a valve 9 is provided, which comprises a rod 10 linked to the cover 5 of the first deposit 2, so that the passage of water from the first deposit 2 to the second deposit 3 is only permitted when cover 5 is placed in its position.

[0024] Between the first 2 and the second 3 deposits is placed an air conduit 13 provided with a retardation valve 11. This retardation valve 11 is formed by a container provided with an orifice, whose function will be described.

[0025] The operation of the mop bucket of the present invention for the user is basically the same one of any conventional mop bucket.

[0026] In first place, the first deposit 2 with water must be filled up to its maximum capacity. While it is being loaded, the valve 9 prevents the passage of water from the first deposit 2 to the second deposit 3.

[0027] When the first deposit 2 has been loaded, it is closed hermetically with the cover 5, driving the rod 10, and allowing the passage of an amount of water to the second deposit 3 through the siphon 12.

[0028] When the water in the second deposit 3 arrives to a predetermined level, the air conduit 13 is closed, creating an effect of vacuum in the first deposit 2 and preventing more water to pass to second deposit 3.

[0029] Once the second deposit 3 is loaded, the mop bucket of the present invention is ready to be used. To do this, the mop is placed into the second deposit so that it is soaked, and then it is wrung in the drainer 4.

[0030] when the mop is wrung, the pressure that it exerts downwardly causes the drainer 4 to move from its rest position to its use position against the action of the spring 8.

[0031] This displacement of the drainer 4 causes the movement of the plug 6 of second deposit 3 from its closing position to its opening position via the connecting rod 7. In this opening position of the plug 6, the water that already has been used leaves the second deposit 3 and it is accumulated in the bucket 1.

[0032] When the user stops to wring the mop, the drainer 4 returns to its rest position by the action of the spring 8 and, consequently, the plug 6 moves from its opening position to its closing position.

[0033] When the second deposit 3 begins to be empty, the vacuum in the first deposit 2 is released, causing the second deposit 3 to be filled again automatically.

[0034] In order to avoid the mix of the water that leaves the second deposit 3 with the water that comes from the first deposit 2, the air conduit 13 comprises a retardation valve 11 formed by a container provided with an orifice.

[0035] This container fills with water coming from the second deposit 3, which closes the air conduit 13. When the second deposit 3 begins to be empty, the air conduit 13 does not allow the air passage until the content of the container has drained, which takes some seconds, since the water leaves only through this orifice.

[0036] When the air conduit 13 allows the air passage,

the air can already pass to first deposit 2, eliminating the vacuum and allowing the passage of the water through the siphon 12.

[0037] Once the second deposit 3 is filled with clean water, the previously described operation can be done again.

[0038] This automatic charge of the second deposit 3 will be made until the first deposit 2 has drained. Then the bucket 1 must be emptied with the used water, and the first deposit 2 must be loaded again, as it has been explained previously.

[0039] Although reference has been made to a concrete embodiment of the invention, it is evident for a person skilled in the art that the mop bucket described is susceptible of numerous variations and modifications, and that all the mentioned details can be replaced by technically equivalent others, without departing from the scope of protection defined by the attached claims.

Claims

1. Mop bucket, comprising a drainer (4) where an element of cleaning is wrung, comprising:

- a first deposit (2) accumulating clean water to supply it to a second deposit (3) of in communication with said first deposit (2) ;

- draining means (6) of said second deposit (3) linked to said drainer (4), so that when the cleaning element is wrung, said second deposit (3) drains and part of the water of said first deposit (2) passes to the second deposit (3),

characterized in that said draining means comprises a draining plug (6) movable between a closing position and an opening position and **in that** said drainer (4) is movable vertically between a rest position and a use position, wherein this draining plug (6) is linked with the drainer (4) so that when the mop is wrung, the pressure that said mop exerts downwardly causes the drainer (4) to move to its use position placing the plug (6) in the opening position.

2. Mop bucket according to claim 1, **characterized in that** said drainer (4) comprises a return spring (8) that tends to place said drainer (4) in the rest position.

3. Mop bucket according to claim 1, **characterized in that** the draining plug (6) is linked with the drainer via a connecting rod (7).

4. Mop bucket according to claim 1, **characterized in that** said first (2) and second (3) deposits are communicated to each other by means of a siphon (12).

5. Mop bucket according to claim 1, **characterized in that** it also comprises a valve (9) to allow or to pre-

vent the passage of the water from the first one to the second deposit.

6. Mop bucket according to claim 1, **characterized in that** this valve (9) comprises a rod (10) linked with a cover (5) of said first deposit (2), so that the passage of water from the first (2) to the second (3) deposit is allowed only when the cover (5) is placed in its position.
7. Mop bucket according to claim 1, **characterized in that** it also comprises an air conduit (13) provided with a retardation valve (11) of the passage of the water from the first (2) to the second (3) deposit.
8. Mop bucket according to claim 7, **characterized in that** this retardation valve (11) is formed by a container provided with an orifice.

Patentansprüche

1. Moppeimer mit einem Abtropfkorb (4), in dem ein Putzelement ausgewrungen wird, und mit einem ersten Aufnahmeteil (2) zum Aufnehmen sauberen Wassers zur Weiterleitung an einen zweiten Aufnahmeteil (3), der mit dem ersten Aufnahmeteil (2) in Verbindung steht; ein Ablaufmittel (6) des zweiten Aufnahmeteils (3), das mit dem Abtropfkorb (4) verbunden ist, so dass, wenn das Putzelement ausgewrungen wird, der zweite Aufnahmeteil (3) sich entleert und ein Teil des Wassers des ersten Aufnahmeteils (2) in den zweiten Aufnahmeteil (3) läuft, **dadurch gekennzeichnet, dass** das Ablaufmittel einen Ablaufstopfen (6) aufweist, der zwischen einer Schließstellung und einer Öffnungsstellung bewegbar ist, und dass der Abtropfkorb (4) vertikal zwischen einer Ruhestellung und einer Gebrauchsstellung bewegbar ist, wobei der Ablaufstopfen (6) mit dem Abtropfkorb (4) verbunden ist, so dass, wenn der Mopp ausgewrungen wird, der Druck, den der Mopp nach unten ausübt, verursacht, dass sich der Abtropfkorb (4) in seine Gebrauchsstellung bewegt und den Ablaufstopfen (6) in die Öffnungsstellung bewegt.
2. Moppeimer nach Anspruch 1, **dadurch gekennzeichnet, dass** der Abtropfkorb (4) eine Rückstellfeder (8) aufweist, die dazu neigt, den Abtropfkorb (4) in die Ruhestellung zu bringen.
3. Moppeimer nach Anspruch 1, **dadurch gekennzeichnet, dass** der Ablaufstopfen (6) über eine Verbindungsstange (7) mit dem Abtropfkorb verbunden ist.
4. Moppeimer nach Anspruch 1, **dadurch gekennzeichnet,**

zeichnet, dass der erste (2) und der zweite (3) Aufnahmeteil miteinander durch einen Siphon (12) verbunden sind.

5. Moppeimer nach Anspruch 1, **dadurch gekennzeichnet, dass** er auch ein Ventil (9) aufweist, um das Fließen von Wasser von dem ersten zu dem zweiten Aufnahmeteil zu ermöglichen oder zu verhindern.
6. Moppeimer nach Anspruch 5, **dadurch gekennzeichnet, dass** das Ventil (9) eine Stange (10) aufweist, die mit einem Deckel (5) des ersten Aufnahmeteils (2) verbunden ist, so dass das Fließen von Wasser von dem ersten (2) zu dem zweiten (3) Aufnahmeteil nur ermöglicht wird, wenn sich der Deckel (5) an der richtigen Stelle befindet.
7. Moppeimer nach Anspruch 1, **dadurch gekennzeichnet, dass** er auch ein Luftrohr (13) aufweist, das mit einem Verzögerungsventil (11) für den Durchtritt von Wasser von dem ersten (2) zu dem zweiten (3) Aufnahmeteil versehen ist.
8. Moppeimer nach Anspruch 7, **dadurch gekennzeichnet, dass** das Verzögerungsventil (11) von einem Behälter gebildet ist, der mit einer Öffnung versehen ist.

Revendications

1. Seau à torchon, comprenant un vidangeur (4) sur lequel un élément de nettoyage est tordu, et comprenant :
 - un premier réservoir (2) qui reprend de l'eau propre destinée à être délivrée à un deuxième réservoir (3) qui communique avec le premier réservoir (2),
 - des moyens de vidange (6) dudit deuxième dépôt (3) reliés audit vidangeur (4) de telle sorte que lorsque l'élément de nettoyage est tordu, ledit deuxième réservoir (3) se vide et une partie de l'eau dudit premier réservoir (2) passe dans le deuxième réservoir (3),**caractérisé en ce que** ledit moyen de vidange comprend un bouchon de vidange (6) qui peut être déplacé entre une position de fermeture et une position d'ouverture et **en ce que** ledit vidangeur (4) peut être déplacé verticalement entre une position de repos et une position d'utilisation, le bouchon de vidange (6) étant lié au vidangeur (4) de telle sorte que lorsque le torchon est tordu, la poussée exercée par ledit torchon vers le bas amène le vidangeur (4) à passer dans sa position d'utilisation qui place

le bouchon (6) dans la position ouverte.

2. Seau à torchon selon la revendication 1, **caractérisé en ce que** ledit vidangeur (4) comprend un ressort de rappel (8) qui tend à replacer ledit vidangeur (4) dans la position de repos. 5
3. Seau à torchon selon la revendication 1, **caractérisé en ce que** le bouchon de vidange (6) est lié au vidangeur par une tige de connexion (7). 10
4. Seau à torchon selon la revendication 1, **caractérisé en ce que** ledit premier réservoir (2) et ledit deuxième réservoir (3) communiquent l'un avec l'autre au moyen d'un siphon (12). 15
5. Seau à torchon selon la revendication 1, **caractérisé en ce qu'il** comprend également une soupape (9) qui permet ou empêche le passage de l'eau du premier au deuxième réservoir. 20
6. Seau à torchon selon la revendication 1, **caractérisé en ce que** la soupape (9) comprend une tige (10) liée à un couvercle (5) dudit premier réservoir (2), de telle sorte que le passage de l'eau du premier réservoir (2) au deuxième réservoir (3) n'est permis que lorsque le couvercle (5) est placé dans sa position. 25
7. Seau à torchon selon la revendication 1, **caractérisé en ce qu'il** comprend également un conduit d'air (13) doté d'une soupape (11) qui retarde le passage de l'eau du premier réservoir (2) au deuxième réservoir (3). 30
8. Seau à torchon selon la revendication 7, **caractérisé en ce que** la soupape de retardement (11) est formée d'un récipient doté d'un orifice. 35

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FIG. 1

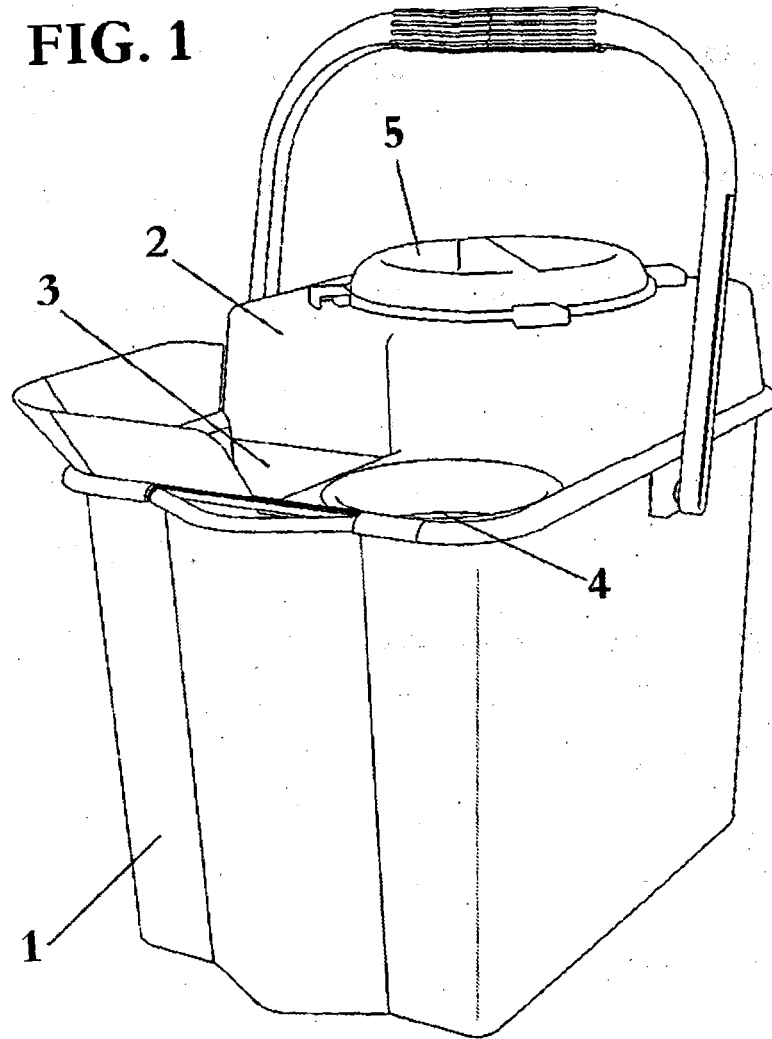


FIG. 2

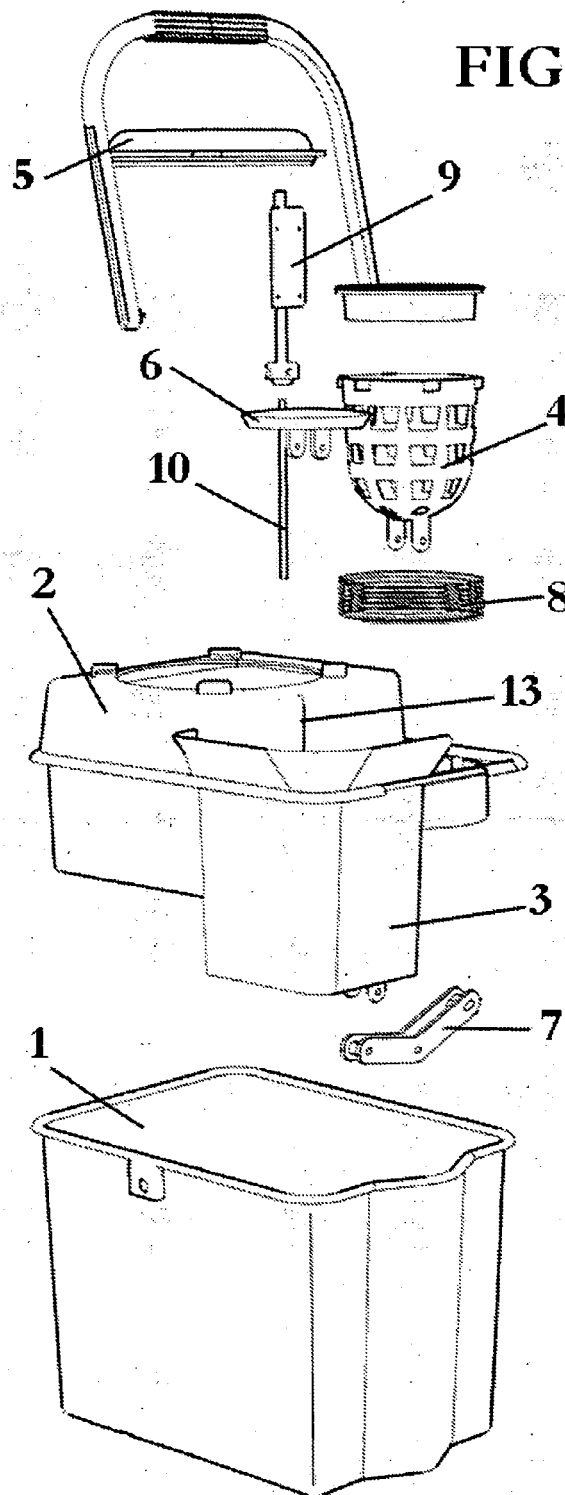


FIG. 3

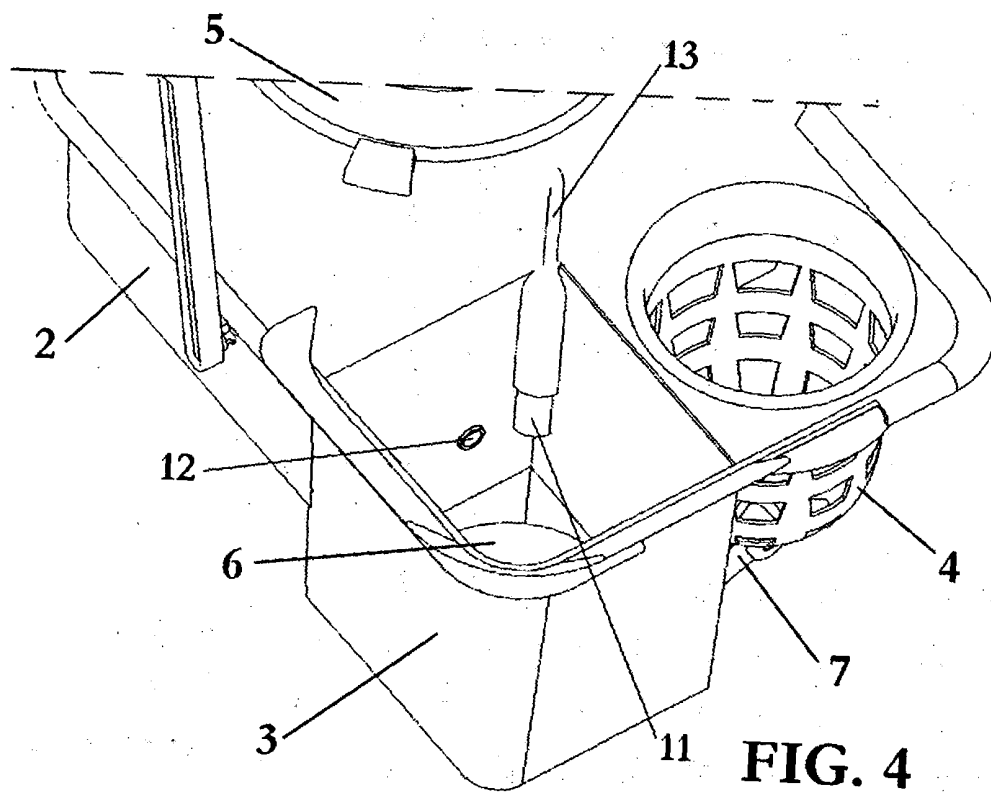
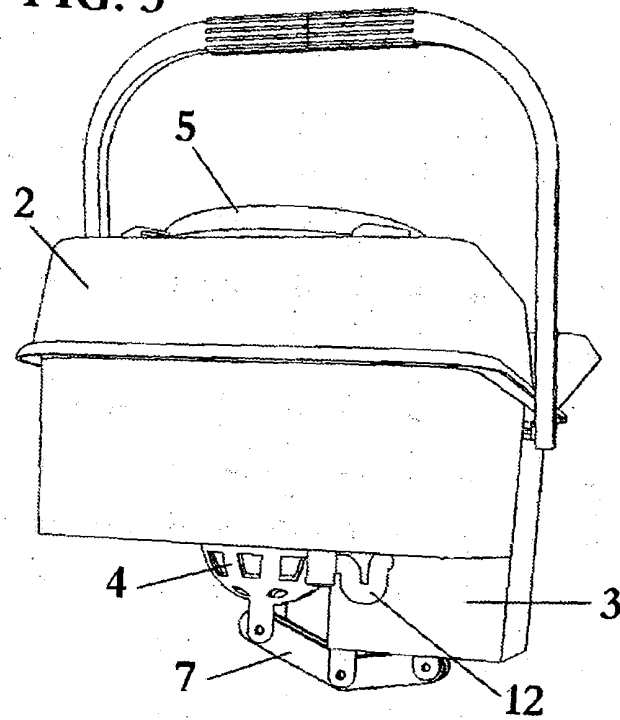


FIG. 4

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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