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(54) **FLAT MOP COVER FOR A MOPPING DEVICE, IN PARTICULAR FOR FLOOR CLEANING**

FLACHE MOPPABDECKUNG FÜR EINE MOPPVORRICHTUNG, BESONDERS FÜR DIE
FUSSBODENREINIGUNG

HOUSSE PLATE DE BALAI DE LAVAGE DU SOL POUR UN DISPOSITIF DE LAVAGE DU SOL

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Description

[0001] The present invention relates to a flat mop cover for a mopping device which is, in particular, suitable for floor cleaning, according to the introductory part of claim 1. The invention relates further to a mop holder specifically adapted to cooperate with an inventive mop cover, the mop holder according to the introductory part of claim 9. Finally, the invention relates to a mopping device as such with both device-parts, namely mop holder and mop cover, according to claim 10.

[0002] Mopping devices for mopping surfaces to be cleaned are widely known and in extensive use in professional and non-professional floor cleaning. They use a mop holder with a attached flat mop cover from textile material made from natural or synthetic fibers including and increasingly using micro-fibers. The present invention deals with flat mop covers for use with mopping devices.

[0003] Flat mop covers, as well, are widely known for use in mopping devices for mopping surfaces to be cleaned. A typical flat mop cover has a flat backing textile made of cotton, polyester, or polyamide, onto which loops and/or fringes are attached as a trimming. Insofar, reference is made to the prior art of US 5,887,311 A, which extensively explains the materials used, including micro-fibers for trimmings or the like.

[0004] Trimmings attached to the backing textile on the mopping side thereof are usually made in the form of loops, strands, tufts, or strips, which is extensively explained in US 5,887,311 A.

[0005] Cleaning of vertically oriented baseboards or the like is improved by the use of a backing textile that extends, at least toward the longitudinal edges thereof, past the edges defined by the outer contour of the mop holder to form a relatively broad edge strip on each longitudinal side of the mop cover (DE 31 39 245 C2). Those broad edge strips may be easily folded and may glide without problems, so that vertical surfaces like baseboards can be cleaned by just sweeping past with the mopping device.

[0006] The prior art forming the starting point of the invention (US 5,887,311 A) extensively discusses the specifics of professional cleaning of buildings, floors, etc. Here, the characteristics of different materials and fibers for a mop cover are discussed at length considering abrasive effect, soil retention capacity, water retention capacity, gliding behavior, fluff production and, very important, washing and pressing characteristics.

[0007] Attachment means for the mop holder are usually positioned near the transversal edges of the mop cover, but may be placed along the longitudinal edges thereof, as well. The attachment means are described as insertion pockets or holding strips. Velcro means (burr means) or other attachment means, such as clamping means, are as well known from the prior art (US 5,887,311 U1).

[0008] Finally, three-dimensional mop holders can be

used with flat mop covers, too, which may then form two alternately usable mopping sides (EP 0 757 903 B1 = US 5,864,914 A).

[0009] The prior art forming the starting point of the invention (US 5,887,311 A) discloses a mopping with a mop holder being of a fold-away type with two wings that are hingedly connected to each other parallel to the transversal edges thereof. The size of the mop cover is adapted to the effective size of the mopping surface of the mop holder with the wings in the straight or extended position. The attachment means of the mop cover are located near to the transversal edges of the backing textile with the free edges thereof running parallel to the transversal edges of the backing textile, namely straight across the backing textile. So this mop cover is adapted to be used with this specific mop holder with a transversal hinged connection.

[0010] In contrast to this prior art the three-dimensional mop holder according to the further mentioned prior art (EP 0 757 903 B1) has a specifically adapted mop cover, too, where the attachment means in the form of insertion pockets are located near to the longitudinal edges of the backing textile and the free edges thereof run parallel to the longitudinal edges of the backing textile between both transversal edges thereof. This particular mop cover can be used with this particular mop holder only.

[0011] In the prior art forming the starting point of the invention (US 5,887,311 A) the distance between the free edges of the attachment means at both opposite edges is so large that in addition retaining means in the form of rims extending essentially parallel to the longitudinal edges of the backing textile are used. When the mop holder is positioned on top of the mop cover with the transversal ends of the mop holder safely positioned within the insertion pockets, the longitudinal edges of the mop holder lay face to face with the retaining means on the top side of the backing textile.

[0012] In institutional cleaning of buildings, floors are generally cleaned by a figure-of-eight process in which only one of the two longitudinal edges of the mop cover is always at the front in the wiping direction. This longitudinal edge of the mop cover is prevented from slipping relative to the mop holder by the retaining means on the top side of the backing textile that abuts the longitudinal edge of the wing of the mop holder. There is thus no need to check on the position of the mop cover in relation to the mop holder, because the mop cover is safely positioned "between" the retaining means along the longitudinal edges thereof and prevented from moving towards one of the transversal edges by the attachment means. In this regard reference is made to US 5,887,311 A.

[0013] There is no need for additional retaining means between the attachment means if the figure-of-eight process is performed with a mopping device where the wings of the mop holder are hingedly connected to each other along the lengthwise extension thereof. There the attachment means runs along the longitudinal edge of the mop cover and so the necessary retaining function in the op-

erating direction is performed by the attachment means itself. This is particularly interesting for the three-dimensional mop holder that has two alternately usable mopping sides.

[0014] As can be obtained from the discussion of the prior art, up to now there are only pairs of flat mop holder and flat mop cover specifically assigned to this flat mop holder.

[0015] The object of the present invention is to provide a flat mop cover which can basically be used with both types of mop holders with a hinge connection of the wings running parallel to the transversal edges or parallel to the longitudinal edges thereof.

[0016] The above-mentioned object of the present invention is met with a flat mop cover comprising the features of the introductory part of claim 1 and in addition the features of the characterizing part of claim 1. Preferred embodiments of this flat mop cover are described in claims 2 to 8.

[0017] Further, the invention provides a solution for above-mentioned problem as far as the mop holder is concerned by the features of claim 9.

[0018] Finally, the complete mopping device is the subject matter of dependent claims 10 and 11.

[0019] In contrast to the prior art solutions, in the flat mop cover of the present invention the retaining means in the form of rims or ridges are positioned on the top side of the backing textile generally. So the position of the mop cover relative to the mop holder when performing the figure-of-eight process is defined by the retaining means. The attachment means are reduced to the transversal ends of the mop cover as in the mop covers for mop holders with a hinged connection of the wings that runs parallel to the transversal edges thereof. However, due to the specific positioning of the attachment means that are formed as holding strips or insertion pockets those are confined to the corners of the mop cover. This allows for the use of a mop holder of the same size but with a hinged connection that runs parallel to the longitudinal edges thereof. Further, if the material of the attachment means is slightly elastic, this universal applicability of the flat mop cover according to the invention is further improved.

[0020] Preferred embodiments of the flat mop cover according to the present invention are the subject matter of the dependent claims.

[0021] As far as a specific mop holder is concerned claim 9 explains that the possibility to insert the wings of a mop holder with lengthwise extending hinged connection is further improved by cutouts or recesses in the corresponding transversal edges thereof. It is easier for the wings to slip below the attachment means in the edges of the flat mop cover as the cutouts provide additional space for this movement.

[0022] As far as three-dimensional mopping devices are concerned reference is made to an elder application of the applicant, namely PCT/EP 2004/007010 filed on June 29, 2004 with priority of August 11, 2003. As far as

the properties of microfiber-material for backing textile and trimming of the mop cover are concerned, reference is made to a further application of the same applicant, namely PCT/EP 2004/007014 filed June 29, 2004 with priority of August 7, 2003.

[0023] The use of a mopping device according to the invention for floor cleaning is of particular interest for professional floor cleaning in large buildings, hospitals or the like.

[0024] Now, further features, advantages and applications of the invention can be obtained from the following detailed description of preferred embodiments of the invention taken in consumption with the accompanying drawings. In the drawings

Fig. 1 shows a flat mop cover by itself, seen from the top,

Fig. 2 shows a flat mop cover on a mop holder in a top view,

Fig. 3 shows the mopping device of Fig. 2 now with the wings of the mop holder folded inwardly into its operative position,

Fig. 4 shows a mop cover of smaller width, now with a mop holder with a transversally extending hinge,

Fig. 5 shows, in a top view, a further embodiment of a mop holder.

[0025] The flat mop cover shown in Fig. 1 is intended to be used on a flat mop holder and is shown on such a mop holder in Fig. 2. Fig. 2 shows the mounting position of the mop holder on the mop cover, whereas Fig. 3 then shows the final operative position of the mopping device. This particular mopping device is a three-dimensional device with a mop holder of the fold-away type which is explained in detail later.

[0026] Now, the mop cover 1 shown in Fig. 1 shows a large area flat backing textile 2 having longitudinal edges 3 and transversal edges 4 and having a mopping side 5 (below the mop cover 1 in Fig. 1) which is used to clean, and a top side 6 which can be seen in Fig. 1 which is used to attach the mop cover 1 to a mop holder 7 as shown in Fig. 2. In the present embodiment the mop holder 7 is plate-like and has a cardan joint 8 with a handle socket 9 which allows movement of the mop holder 7 in relation to a handle in nearly all directions.

[0027] In the present embodiment in addition to the cardan joint 8 it can be seen that the mop holder 7 is of the fold-away type with two wings 10 that are hingedly connected to each other at a hinged connection 11. Here the hinged connection 11 runs parallel to the longitudinal edges 12 of the mop holder 7. Indicated is a detachable connecting means 13 that is provided between the wings 10 that fixedly connects the wings 10 in an operative po-

sition thereof, namely in the usage state of the mopping device which is indicated in Fig. 3, in which the mop cover 1 on the mop holder 7 is held in its usage state ready to clean.

[0028] However, this is only a specific embodiment of the invention (similar to the system disclosed in above-mentioned PCT/EP 2004/007010). The invention is not restricted to such kind of mop holder 7. In particular it is applicable and functional with a mop holder 7 with wings 10 extending straight in the operative position thereof, in which the mop cover 1 on the mop holder 7 is held in its usage state ready to clean, similar as shown in Fig. 2 or as shown in Fig. 4.

[0029] Now, on the top side 6 of the backing textile 2 of the mop cover 1 there are provided attachment means 14 in the form of holding strips. Suitable attachment means may also have the form of insertion pockets. Examples can be obtained from the prior art mentioned in the introductory part of the description.

[0030] The attachment means 14 in the form of holding strips are located at the transversal edges 4 of the backing textile 2. If the backing textile 2 of the mop cover 1 extends beyond the surface of the mop holder 7, the attachment means 14 are of course positioned a little bit distant from the transversal edges 4 or longitudinal edges 3 of the mop cover 1. Such construction can be obtained from the other prior application of the present applicant, namely PCT/EP 2004/007014,

[0031] Further, retaining means 15 in the form of rims extending essentially parallel to the longitudinal edges 3 of the backing textile 2 are provided. They are positioned at a distance therebetween that is a little bit larger than the transverse distance of the longitudinal edges 12 of the mop holder 7 in the operative position thereof, in which the mop cover 1 on the mop holder 7 is held in its usage state ready to clean. This operative position may be the straight position of the wings 10 or, in the case of a three-dimensional mop holder 7 according to Fig. 3, the position with the wings 10 in the usage state mentioned above.

[0032] The attachment means 14 define free edges 16 where the mop holder 7 enters the attachment means 14 while attaching the mop cover 1 to the mop holder 7. Those are the "inner" edges 16 of the attachment means 14. The attachment means 14 in the form of holding strips shown in Fig. 1 and 2 of the drawings may have a width of at least 2 cm, preferably of about 4 cm. For details of the attachment means 14, choice of material etc. reference is made to PCT/EP 2004/007014 mentioned above.

[0033] Now, the inventive mop cover 1 provides that there is one attachment means 14 at each corner of the backing textile 2 assigned to a corresponding corner of the mop holder 7. Each attachment means 14 is attached to the top side 6 of the backing textile 2 in a way that the free edge 16 thereof runs at an acute angle relative to the neighbouring longitudinal edge 3 and transversal edge 4 of the backing textile 2. The attachment means 14 in the form of holding strips or, if closed, insertion

pockets which are well known from the prior art mentioned before, are confined to the corners of the backing textile 2 of the mop cover 1. The result is that there can be used a mop holder 7 with wings 10 hingedly connected at a lengthwise extending hinged connection 11 as well as a mop holder 7 with wings 10 connected at a hinged connection 11 that is extending parallel to transversal edges 17 of the mop holder 7 as shown in Fig. 4.

[0034] The drawings show a preferable embodiment in that the angle relative to the longitudinal edge 3 is between approximately 45° and 75°, preferably about 60°.

[0035] There are standard sizes for mop holders 7 with a length of between 40 cm and 60 cm and a width of between 10 cm, and 20 cm, exceptionally up to 30 cm. According to a preferred embodiment of the invention it is provided that the distance between the corner of longitudinal edge 3 and transversal edge 4 and the point where the free edge 16 meets the transversal edge 4 is greater than the distance between the corner of longitudinal edge 3 and transversal edge 4 and the point where the free edge 16 meets the longitudinal edge 3. In fact the attachment means 14 are attachment means 14 at the transversal edges 4 which are not running straight across the top side 6 of the backing textile 2 but at an acute angle relative to the longitudinal edge 3 thereof.

[0036] In a particularly preferred embodiment it is provided that for a standard flat mop cover 1 the distance between the corner of longitudinal edge 3 and transversal edge 4 and the point where the free edge 16 meets the transversal edge 4 is between approximately 4 cm and approximately 12 cm, preferably about 7 cm. The distance between the corner of longitudinal edge 3 and transversal edge 4 and the point where the free edge 16 meets the longitudinal edge 3 is between approximately 3 cm and approximately 10 cm, preferably about 5 cm.

[0037] Fig. 4 shows an embodiment with a mop cover 1 where the size of the mop cover 1 is adapted to the effective size of the mopping surfaces of the mop holder 7 in the stretched position of the wings 10, i.e. the size is selected so that it fits onto the mopping surfaces of the mop holder 7 in this position.

[0038] In contrast to this Fig. 1 to 3 show an embodiment of a three-dimensional mop holder 7 where the size of the mop cover 1 is adapted to the effective size of the mopping surfaces of the mop holder 7 with the wings 10 in the operative position thereof, i.e. the size is selected so that it fits onto the mopping surfaces of the mop holder 7 in this position.

[0039] Looking at the drawings it can be understood that according to a preferred embodiment it should be provided that each attachment means 14 extends over approximately 20 % to approximately 40 %, preferably about 30 %, of the distance between the retaining means 15 on the top side 6 of the backing textile 2. Likewise it can be provided according to a preferred embodiment that each attachment means 14 extends over approximately 5 % to approximately 15 %, preferably approxi-

mately 8 % to approximately 10 % of the distance between the closed ends of the attachment means 14 at the transversal edges 4 of the flat mop cover 1.

[0040] Altogether the function of the inventive mop cover 1 can be further improved if the attachment means 14, in particular if those are provided as holding strips, are made from slightly elastic material. This is particularly helpful with a three-dimensional mop holder 7. When folding the wings 10 into their operative position shown in Fig. 3 the mop cover 1 can be safely and fixedly positioned between the retaining means 15 and below the holding strips forming the attachment means 14 in the corners of the mop cover 1.

[0041] From enclosed drawings it is obvious that inserting the ends of the wings 10 of the mop holder 7 below the attachment means 14 on the top side 6 of the backing textile 2 is easy for a mop holder 7 with transversally extending hinged connections 11. It is less easy for a lengthwise extending hinged connection 11, because of the smaller distance between the hinged connection 11 and the corresponding longitudinal edge 12 of the mop holder 7. In order to further facilitate the attachment of the mop cover 1 to the mop holder 7 in this case a specific mop holder is provided where each wing 10 at each transversal edge 17 thereof is provided with a cutout 18 or recess at a location between the longitudinal edge 12 and the hinged connection 11 of the wings 10. The cutout 18 or recess is at a location where the free edge 16 of the corresponding attachment means 15 of the corresponding mop cover 1 is located when the mop cover 1 is attached to the mop holder 7. Fig. 5 shows this specific mop holder 7.

[0042] For the exemplary embodiment shown in the drawings, it is particularly expedient for the backing textile 2 as a whole, or at least a trimming of the backing textile 2, to be made of microfiber material, particularly polyester microfiber material. It is particularly advantageous, in this case, for the microfiber material to be synthetic and to predominantly have microfibers of approximately 0.5 to approximately 1.0 dtex. This also applies correspondingly for an embodiment with knitted fabric.

[0043] The use of microfiber material made of thin microfibers is especially expedient if a velour fabric is implemented, because in this case the trimming of the backing textile 2, forming the mopping side 5, which is active in cleaning, is formed by the open microfibers.

[0044] For a mop cover of this type in the preferred embodiment described above as a microfiber velour fabric, a dry weight of the mop cover of approximately 60 g, a wet weight of approximately 440 g, and therefore water absorption of approximately 380 g or approximately 660 % results for a support of 40 cm length. This is to be compared with an equally large, classical loop/fringe mop cover having a dry weight of approximately 160 g, a wet weight of approximately 680 g, and water absorption of approximately 520 g or approximately 320 %.

[0045] The polyester microfibers in the preferred exemplary embodiment of a mop cover have a high water

absorption, which is made possible by the polarity of the atomic bonds. This polarity to oxygen/carbon is sufficiently effective for polyester fibers when the microfibers are manufactured having approximately 1 dtex or less thickness (1 dtex = 1 g/10,000 meters). For further details once more please refer to PCT/EP 2004/007014 of the present applicant.

[0046] Finally, the drawings also show the complete mopping device consisting of a mop cover on a mop holder.

Claims

1. A flat mop cover for a mopping device comprising a mop holder and a mop cover, the mop holder (7) being of the fold-away type with two wings (10) that are hingedly connected to each other at a hinged connection (11) which runs parallel to the longitudinal edges (12) or to the transversal edges (17) of the mop holder (7), the mop cover (1) comprising a flat backing textile (2) having longitudinal edges (3) and transversal edges (4) and having a mopping side (5) which is used to clean and a top side (6) which is used to attach the mop cover (1) to the mop holder (7) of the mopping device, wherein on the top side (6) of the backing textile (2) are provided attachment means (14) in the form of holding strips or insertion pockets located at or near to the transversal edges (4) of the backing textile (2), and retaining means (15) in the form of rims or ridges extending essentially parallel to the longitudinal edges (3) of the backing textile (2) at a distance between the retaining means (15) along a transversal axis of the mop cover (1), the transverse distance, that is a little bit larger than the transverse distance of the longitudinal edges (12) of the mop holder (7) in an operative position thereof, in which the mop cover (1) on the mop holder (7) is held in its usage state ready to clean, wherein the attachment means (14) define free edges (16) where the mop holder (7) enters the attachment means (14) while attaching the mop cover (1) to the mop holder (7),
characterized in that
there is one attachment means (14) at each corner of the backing textile (2) assigned to a corresponding corner of the mop holder (7) and each attachment means (14) is attached to the top side (6) of the backing textile (2) in a way that the free edge (16) thereof runs at an acute angle relative to the neighbouring longitudinal edge (3) and to the transversal edge (4) of the backing textile (2).
2. Mop cover according to the preceding claim, **characterized in that**

the angle relative to the longitudinal edge (3) is between approximately 45° and 75°, preferably about 60°.

3. Mop cover according to any one of the preceding claims, **characterized in that**
the distance between the corner of longitudinal edge (3) and transversal edge (4) and the point where the free edge (16) meets the transversal edge (4) is greater than the distance between the corner of longitudinal edge (3) and transversal edge (4) and the point where the free edge (16) meets the longitudinal edge (3).
4. Mop cover according to any one of the preceding claims, **characterized in that**
for a standard flat mop cover (1) the distance between the corner of longitudinal edge (3) and transversal edge (4) and the point where the free edge (16) meets the transversal edge (4) is between approximately 4 cm and approximately 12 cm, preferably about 7 cm, and/or
the distance between the corner of longitudinal edge (3) and transversal edge (4) and the point where the free edge (16) meets the longitudinal edge (3) is between approximately 3 cm and approximately 10 cm, preferably about 5 cm.
5. Mop cover according to any one of the preceding claims,
where the mop holder (7) of the mopping device is of a fold-away type with two wings (10) that are hingedly connected to each other parallel to the transversal edges (17) thereof, **characterized in that**
the size of the mop cover (1) is selected so that it fits onto the mopping surfaces of the mop holder (7) in the stretched position of the wings (10).
6. Mop cover according to any one of the claims 1 to 4, wherein
the mop holder (7) of the mopping device is of a fold-away type with two wings (10) that are hingedly connected to each other parallel to the longitudinal edges (12) thereof, **characterized in that**
the size of the mop cover (1) is selected so that it fits onto the mopping surfaces of the mop holder (7) with the wings (10) in the operative position thereof, in which the mop cover (1) on the mop holder (7) is held in its usage state ready to clean.
7. Mop cover according to any one of the preceding claims, **characterized in that**
each attachment means (14) extends over approximately 20 % to approximately 40 %, preferably about 30 %, of the distance between the retaining means (15) on the top side (6) of the backing textile (2).

8. Mop cover according to any one of the preceding claims, **characterized in that**
each attachment means (14) extends over approximately 5 % to approximately 15 %, preferably approximately 8 % to approximately 10 % of the distance between the closed ends of the attachment means (14) at the transversal edges (4) of the flat mop cover (1).
9. Mop holder of a fold-away type for a mopping device, the mop holder (7) comprising
two wings (10) that are hingedly connected to each other parallel to the longitudinal edges (12) of the mop holder (7),
for application with a flat mop cover (1) comprising a flat backing textile (2) having longitudinal edges (3) and transversal edges (4) and having a mopping side (5) which is used to clean and a top side (6) which is used to attach the mop cover (1) to the mop holder (7),
wherein on the top side (6) of the backing textile (2) are provided attachment means (14) in the form of holding strips or insertion pockets located at or near to the transversal edges (4) of the backing textile (2), **characterized in that**
each wing (10) at each transversal edge (17) thereof is provided with a cutout (18) or recess at a location between the longitudinal edge (12) and the hinged connection (11) of the wings (10),
the cutout (18) or recess is at a location where the free edge (16) of the corresponding attachment means (15) of the corresponding mop cover (1) is located when the mop cover (1) is attached to the mop holder (7).
10. Mopping device comprising a mop holder and a mop cover,
the mop holder (7) being of the fold-away type with two wings (10) that are hingedly connected to each other at a hinged connection (11) which runs parallel to the longitudinal edges (12) or to the transversal edges (17) of the mop holder (7), **characterized in that**
the mop cover (1) is a mop cover according to any one of the claims 1 to 8.
11. Mopping device according to claim 10, **characterized in that**
the mop holder (7) is a mop holder according to claim 9.

Patentansprüche

1. Fläche Moppabdeckung für eine Moppvorrichtung mit einem Mopphalter und einer Moppabdeckung, wobei der Mopphalter (7) der klappbaren Art mit zwei Flügeln (10) ist, die an einer Scharnierverbindung

- (11), die parallel zu den Längsrändern (12) oder zu den Querrändern (17) des Mopphalters (7) verläuft, gelenkig miteinander verbunden sind, wobei die Moppabdeckung (1) ein flaches Trägertextil (2) mit Längsrändern (3) und Querrändern (4) und mit einer Moppseite (5), die zur Reinigung verwendet wird, und einer Oberseite (6), die zum Anbringen der Moppabdeckung (1) am Mopphalter (7) der Moppvorrichtung verwendet wird, aufweist, wobei an der Oberseite (6) des Trägertextils (2) Anbringmittel (14) in der Form von Haltestreifen oder Einführtaschen, die an den oder in der Nähe der Querränder (4) des Trägertextils (2) angeordnet sind, und Haltemittel (15) in der Form von Rändern oder Erhöhungen vorgesehen sind, die sich im Wesentlichen parallel zu den Längsrändern (3) des Trägertextils (2) und in einem Abstand zwischen den Haltemitteln (15) entlang einer Querachse der Moppabdeckung (1) erstrecken, und einem Querabstand, der etwas größer als der Querabstand der Längsränder (12) des Mopphalters (7) in dessen Betriebsposition ist, in der die Moppabdeckung (1) am Mopphalter (7) in ihrem Gebrauchszustand reinigungsbereit gehalten wird, wobei die Anbringmittel (14) freie Ränder (16) definieren, an denen der Mopphalter (7) beim Anbringen der Moppabdeckung (1) am Mopphalter (7) in die Anbringmittel (14) eintritt, **dadurch gekennzeichnet, dass** ein Anbringmittel (14) an jeder Ecke des Trägertextils (2) einer entsprechenden Ecke des Mopphalters (7) zugeordnet ist und jedes Anbringmittel (14) an der Oberseite (6) des Trägertextils (2) so angebracht ist, dass sein freier Rand (16) in einem spitzen Winkel zum benachbarten Längsrand (3) und zum Querrand (4) des Trägertextils (2) verläuft.
2. Moppabdeckung nach dem vorhergehenden Anspruch, **dadurch gekennzeichnet, dass** der Winkel zum Längsrand (3) zwischen ungefähr 45° und 75° und vorzugsweise bei ungefähr 60° liegt.
 3. Moppabdeckung nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** der Abstand zwischen der Ecke des Längsrandes (3) und des Querrandes (4) und der Stelle, an der der freie Rand (16) auf den Querrand (4) trifft, größer als der Abstand zwischen der Ecke des Längsrandes (3) und des Querrandes (4) und der Stelle ist, an der der freie Rand (16) auf den Längsrand (3) trifft.
 4. Moppabdeckung nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** der Abstand zwischen der Ecke des Längsrandes (3) und des Querrandes (4) und der Stelle, an der der freie Rand (16) auf den Querrand (4) trifft, für eine standardmäßige flache Moppabdeckung (1) zwischen ungefähr 4 cm und ungefähr 12 cm liegt und vorzugsweise ungefähr 7 cm beträgt, und/oder der Abstand zwischen der Ecke des Längsrandes (3) und des Querrandes (4) und der Stelle, an der der freie Rand (16) auf den Längsrand (3) trifft, zwischen ungefähr 3 cm und ungefähr 10 cm liegt und vorzugsweise ungefähr 5 cm beträgt.
 5. Moppabdeckung nach einem der vorhergehenden Ansprüche, wobei der Mopphalter (7) der Moppvorrichtung der klappbaren Art mit zwei Flügeln (10) ist, die parallel zu ihren Querrändern (17) gelenkig miteinander verbunden sind, **dadurch gekennzeichnet, dass** die Größe der Moppabdeckung (1) so gewählt ist, dass sie in der ausgestreckten Position der Flügel (10) auf die Moppflächen des Mopphalters (7) passt.
 6. Moppabdeckung nach einem der Ansprüche 1 bis 4, wobei der Mopphalter (7) der Moppvorrichtung der klappbaren Art mit zwei Flügeln (10) ist, die parallel zu ihren Längsrändern (12) gelenkig miteinander verbunden sind, **dadurch gekennzeichnet, dass** die Größe der Moppabdeckung (1) so gewählt ist, dass sie auf die Moppflächen des Mopphalters (7) passt, wenn die Flügel (10) in ihrer Betriebsposition sind, in der die Moppabdeckung (1) am Mopphalter (7) in ihrem Gebrauchszustand reinigungsbereit gehalten wird.
 7. Moppabdeckung nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** sich jedes Anbringmittel (14) über ungefähr 20% bis ungefähr 40%, vorzugsweise über ungefähr 30%, des Abstands zwischen den Haltemitteln (15) an der Oberseite (6) des Trägertextils (2) erstreckt.
 8. Moppabdeckung nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** sich jedes Anbringmittel (14) über ungefähr 5% bis ungefähr 15%, vorzugsweise über ungefähr 8% bis ungefähr 10%, des Abstands zwischen den geschlossenen Enden der Anbringmittel (14) an den Querrändern (4) der flachen Moppabdeckung (1) erstreckt.
 9. Mopphalter einer klappbaren Art für eine Moppvorrichtung, wobei der Mopphalter (7) Folgendes aufweist:
zwei Flügel (10), die parallel zu den Längsrändern (12) des Mopphalters (7) gelenkig miteinander verbunden sind,
zur Anwendung mit einer flachen Moppabdeckung (1), die ein flaches Trägertextil (2) mit Längsrändern (3) und Querrändern (4) und mit einer Moppseite (5), die zum Reinigen verwendet

det wird, und einer Oberseite (6), die zum Anbringen der Moppabdeckung (1) am Mopphalter (7) verwendet wird, aufweist, wobei auf der Oberseite (6) des Trägertextils (2) Anbringmittel (14) in der Form von Haltestreifen oder Einführtaschen vorgesehen sind, die an den oder in der Nähe der Querränder (4) des Trägertextils (2) angeordnet sind,

dadurch gekennzeichnet, dass jeder Flügel (10) an jedem seiner Querränder (17) an einer Stelle zwischen dem Längsrand (12) und der Scharnierverbindung (11) der Flügel (10) mit einem Ausschnitt (18) oder einer Aussparung versehen ist und

der Ausschnitt (18) oder die Aussparung an einer Stelle ist, an der sich der freie Rand (16) der entsprechenden Anbringmittel (15) der entsprechenden Moppabdeckung (1) befindet, wenn die Moppabdeckung (1) am Mopphalter (7) angebracht ist.

10. Moppvorrichtung mit einem Mopphalter und einer Moppabdeckung, wobei der Mopphalter (7) der klappbaren Art mit zwei Flügeln (10) ist, die an einer Scharnierverbindung (11), die parallel zu den Längsrändern (12) oder zu den Querrändern (17) des Mopphalters (7) verläuft, gelenkig miteinander verbunden sind, **dadurch gekennzeichnet, dass** die Moppabdeckung (1) eine Moppabdeckung nach einem der Ansprüche 1 bis 8 ist.

11. Moppvorrichtung nach Anspruch 10, **dadurch gekennzeichnet, dass** der Mopphalter (7) ein Mopphalter nach Anspruch 9 ist.

Revendications

1. Housse plate de balai de lavage du sol pour un dispositif de lavage du sol, comprenant un support de balai de lavage et une housse de balai de lavage, le support de balai de lavage (7) étant du type repliable avec deux ailes (10) qui sont connectées de manière articulée l'une à l'autre au niveau d'une connexion articulée (11) qui s'étend parallèlement aux bords longitudinaux (12) ou aux bords transversaux (17) du support de balai de lavage (7), la housse de balai de lavage (1) comprenant un textile de support plat (2), ayant des bords longitudinaux (3) et des bords transversaux (4) et ayant un côté de lavage (5) qui est utilisé pour nettoyer et un côté supérieur (6) qui est utilisé pour attacher la housse de balai de lavage (1) au support de balai de lavage (7) du dispositif de lavage du sol, des moyens d'attache (14) en forme de bandes de

retenue ou de poches d'insertion situées au niveau des bords transversaux (4) du textile de support (2) ou près de ceux-ci, étant prévus sur le côté supérieur (6) du textile de support (2), et

des moyens de retenue (15) en forme de bordures ou d'arêtes s'étendant essentiellement parallèlement aux bords longitudinaux (3) du textile de support (2) étant prévus sur le côté supérieur (6) du textile de support (2) à une distance entre les moyens de retenue (15) le long d'un axe transversal de la housse de balai de lavage (1), la distance transversale, qui est un peu plus grande que la distance transversale des bords longitudinaux (12) du support de balai de lavage (7) dans sa position fonctionnelle, dans laquelle la housse de balai de lavage (1) sur le support de balai de lavage (7) est maintenue dans son état d'utilisation prêt à nettoyer, les moyens d'attache (14) définissant des bords libres (16) où le support de balai de lavage (7) entre dans les moyens d'attache (14) lors de l'attache de la housse de balai de lavage (1) au support de balai de lavage (7),

caractérisée en ce que

l'on prévoit un moyen d'attache (14) à chaque coin du textile de support (2), affecté à un coin correspondant du support de balai de lavage (7), et chaque moyen d'attache (14) est attaché au côté supérieur (6) du textile de support (2) de manière à ce que son bord libre (16) s'étende suivant un angle aigu par rapport au bord longitudinal adjacent (3) et au bord transversal (4) du textile de support (2).

2. Housse de balai de lavage selon la revendication précédente, **caractérisée en ce que** l'angle par rapport au bord longitudinal (3) est compris entre environ 45° et 75°, de préférence est d'environ 60°.
3. Housse de balai de lavage selon l'une quelconque des revendications précédentes, **caractérisée en ce que** la distance entre le coin du bord longitudinal (3) et du bord transversal (4) et le point où le bord libre (16) rejoint le bord transversal (4) est supérieure à la distance entre le coin du bord longitudinal (3) et du bord transversal (4) et le point où le bord libre (16) rejoint le bord longitudinal (3).
4. Housse de balai de lavage selon l'une quelconque des revendications précédentes, **caractérisée en ce que** pour une housse de balai de lavage standard plate (1), la distance entre le coin du bord longitudinal (3) et du bord transversal (4) et le point où le bord libre (16) rejoint le bord transversal (4) est comprise entre environ 4 cm et environ 12 cm, de préférence est d'environ 7 cm, et/ou la distance entre le coin du bord longitudinal (3) et du bord transversal (4) et le point où le bord libre (16) rejoint le bord longitudinal (3) est comprise entre

environ 3 cm et environ 10 cm, de préférence est d'environ 5 cm.

5. Housse de balai de lavage selon l'une quelconque des revendications précédentes, dans laquelle le support de balai de lavage (7) du dispositif de lavage du sol est d'un type repliable avec deux ailes (10) qui sont connectées de manière articulée l'une à l'autre parallèlement à leurs bords transversaux (17), **caractérisée en ce que** la taille de la housse de balai de lavage (1) est choisie de manière à ce qu'elle s'adapte aux surfaces de lavage du support de balai de lavage (7) dans la position étirée des ailes (10). 5
6. Housse de balai de lavage selon l'une quelconque des revendications 1 à 4, dans laquelle le support de balai de lavage (7) du dispositif de lavage du sol est d'un type repliable avec deux ailes (10) qui sont connectées de manière articulée l'une à l'autre parallèlement à leurs bords longitudinaux (12), **caractérisée en ce que** la taille de la housse de balai de lavage (1) est choisie de manière à ce qu'elle s'adapte aux surfaces de lavage du support de balai de lavage (7) avec les ailes (10) dans leur position fonctionnelle, dans laquelle la housse de balai de lavage (1) sur le support de balai de lavage (7) est retenue dans son état d'utilisation prêt au nettoyage. 10
7. Housse de balai de lavage selon l'une quelconque des revendications précédentes, **caractérisée en ce que** chaque moyen d'attache (14) s'étend sur environ 20% à environ 40%, de préférence sur environ 30%, de la distance entre les moyens de retenue (15) sur le côté supérieur (6) du textile de support (2). 15
8. Housse de balai de lavage selon l'une quelconque des revendications précédentes, **caractérisée en ce que** chaque moyen d'attache (14) s'étend sur environ 5% à environ 15%, de préférence sur environ 8% à environ 10%, de la distance entre les extrémités fermées des moyens d'attache (14) au niveau des bords transversaux (4) de la housse plate de balai de lavage (1). 20
9. Support de balai de lavage de type repliable pour un dispositif de lavage du sol, le support de balai de lavage (7) comprenant deux ailes (10) qui sont connectées de manière articulée l'une à l'autre parallèlement aux bords longitudinaux (12) du support de balai de lavage (7), 25

au support de balai de lavage (7), des moyens d'attache (14) en forme de bandes de retenue ou de poches d'insertion situées au niveau des bords transversaux (4) du textile de support (2) ou près de ceux-ci, étant prévus sur le côté supérieur (6) du textile de support (2), **caractérisé en ce que** chaque aile (10) au niveau de chaque bord transversal (17) de celle-ci est pourvue d'une découpe (18) ou d'un retrait en un emplacement entre le bord longitudinal (12) et la connexion articulée (11) des ailes (10), la découpe (18) ou le retrait étant en un emplacement où est situé le bord libre (16) des moyens d'attache correspondants (15) de la housse de balai de lavage (1) correspondante lorsque la housse de balai de lavage (1) est attachée au support de balai de lavage (7). 30

10. Dispositif de lavage du sol comprenant un support de balai de lavage et une housse de balai de lavage, le support de balai de lavage (7) étant du type repliable avec deux ailes (10) qui sont connectées de manière articulée l'une à l'autre au niveau d'une connexion articulée (11) qui s'étend parallèlement aux bords longitudinaux (12) ou aux bords transversaux (17) du support de balai de lavage (7), **caractérisé en ce que** la housse de balai de lavage (1) est une housse de balai de lavage selon l'une quelconque des revendications 1 à 8. 35
11. Dispositif de lavage du sol selon la revendication 10, **caractérisé en ce que** le support de balai de lavage (7) est un support de balai de lavage selon la revendication 9. 40

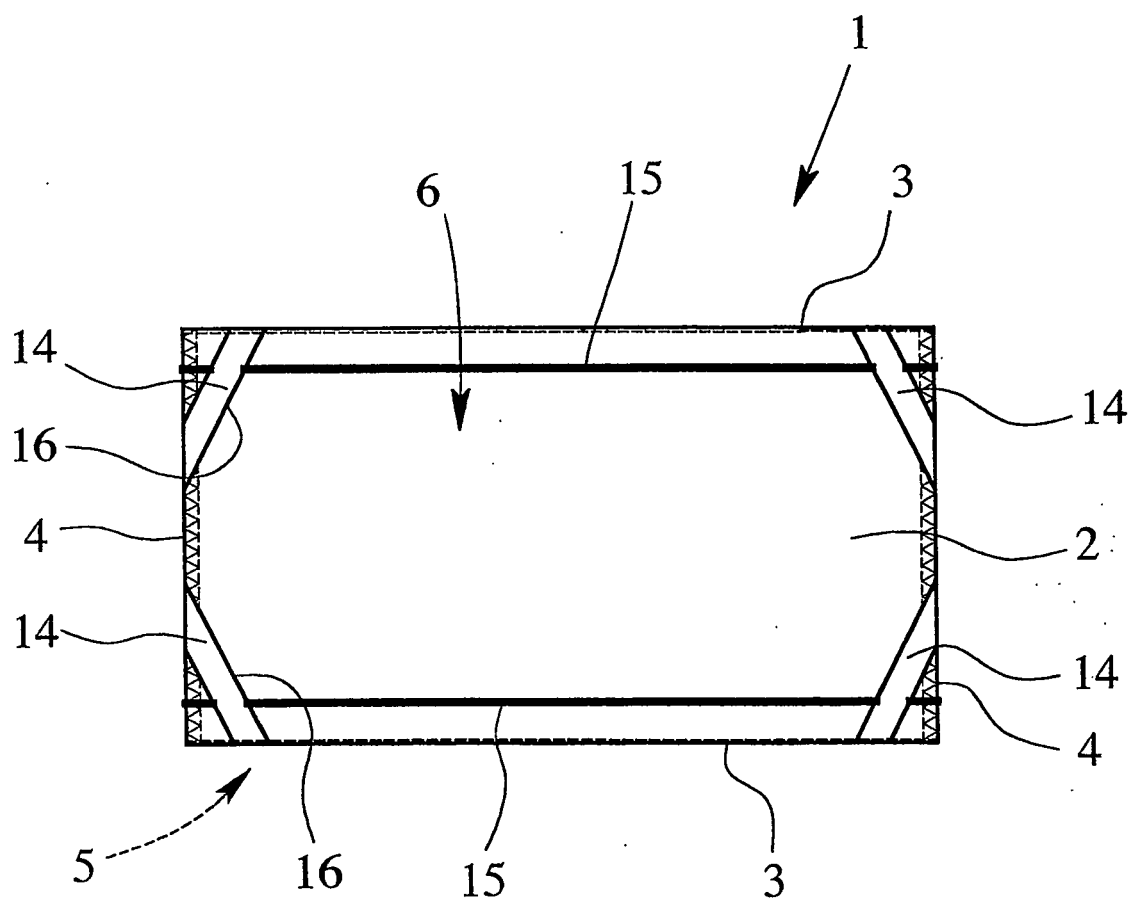


Fig. 1

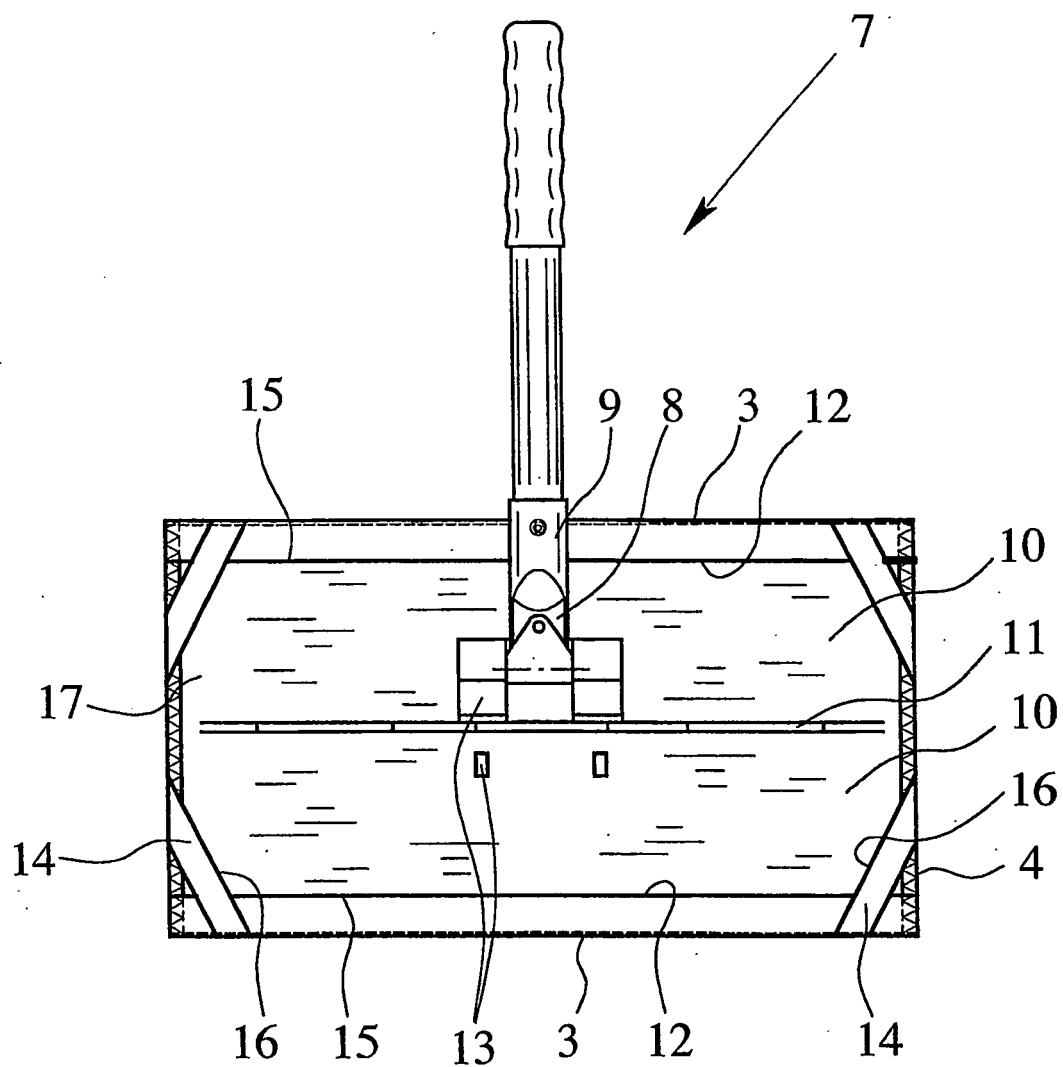


Fig. 2

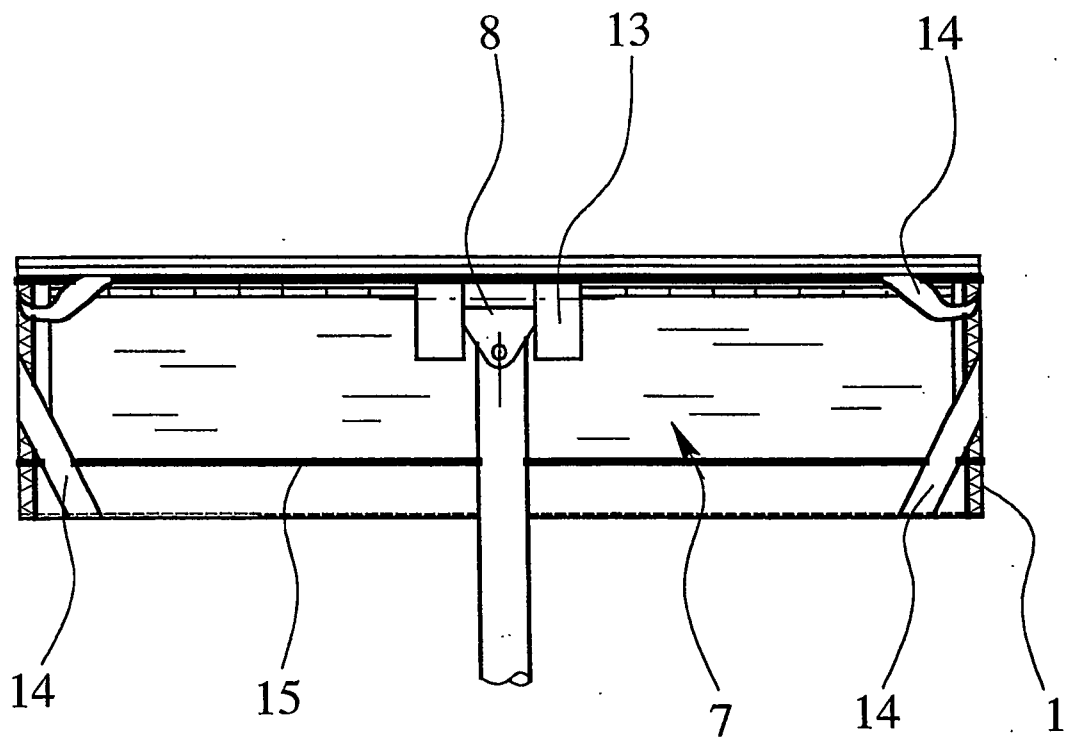


Fig. 3

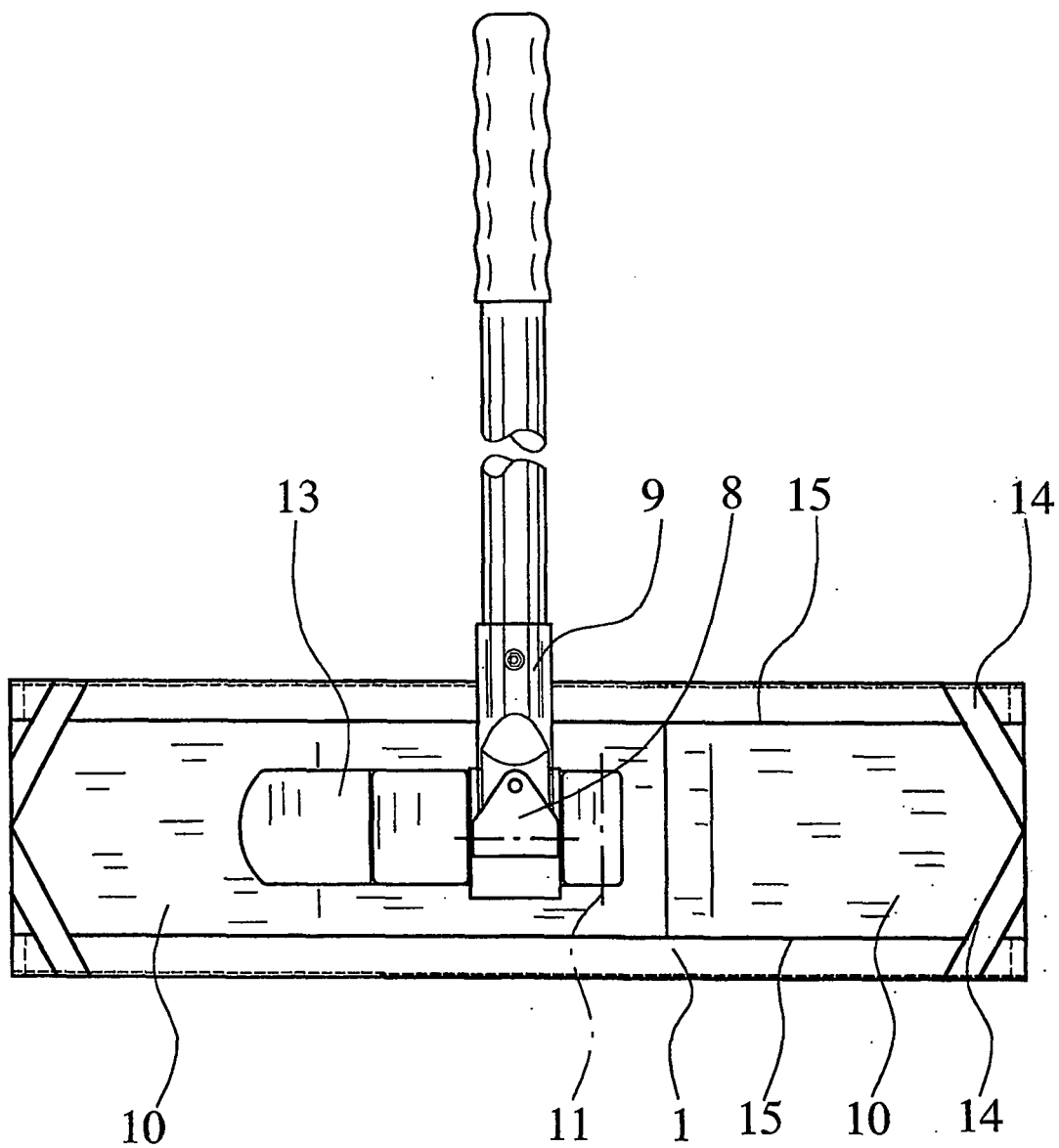


Fig. 4

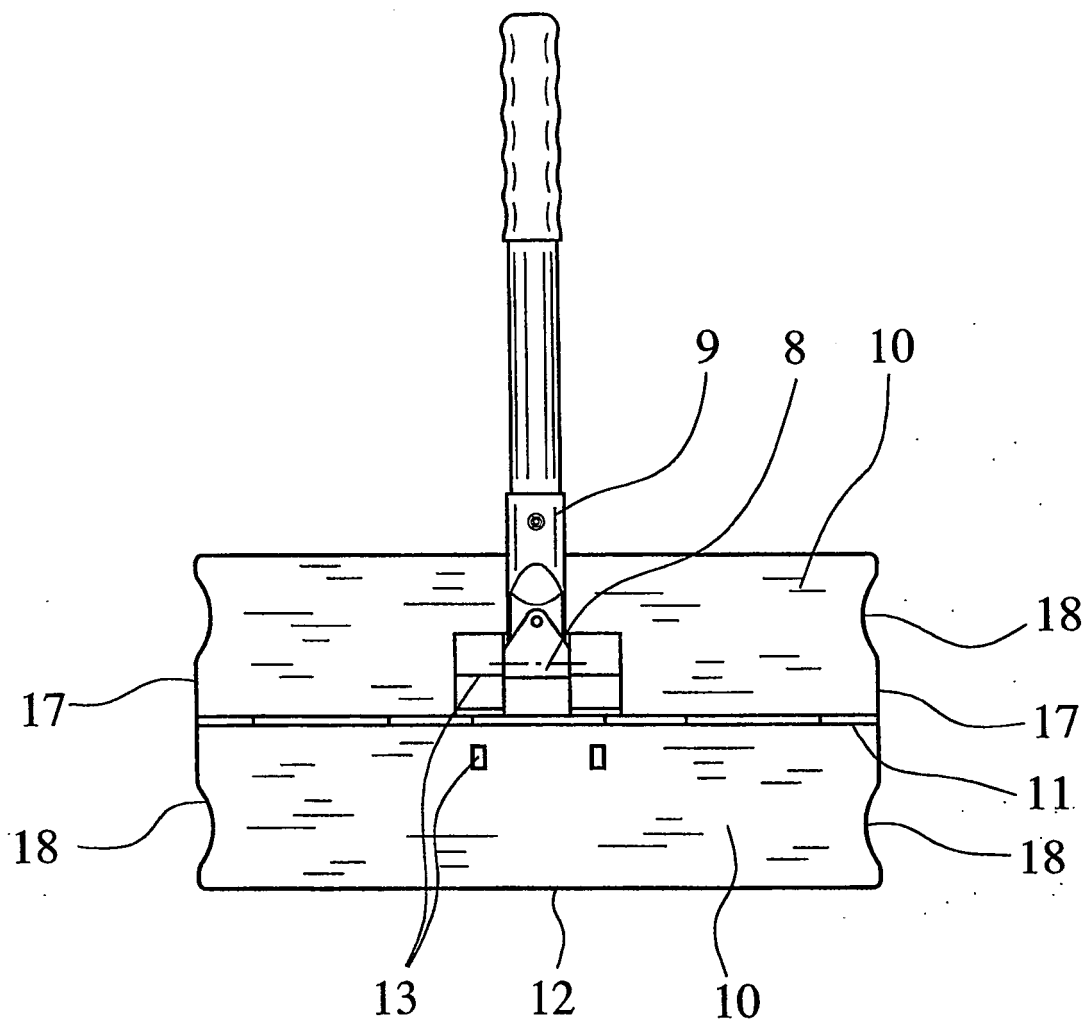


Fig. 5

REFERENCES CITED IN THE DESCRIPTION

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