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(54) **Multi-function floor treatment device**

Mehrzweckvorrichtung zur Bodenreinigung

Dispositif à fonctions multiples pour le nettoyage des sols

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Description**SUBJECT OF THE INVENTION**

[0001] The present invention relates to a floor treatment tool comprising a handle, a drier part provided with a drying spatula, and a dry, damp or wet cloth attachable to the drier part.

PRIOR ART

[0002] A prior-art floor treatment tool has sticker pieces attached to the upper surface of the drier part, and therefore the only kind of cloth that can be attached to the drying spatula is a cloth having suitable sticker attachment parts that will stick to these sticker pieces. The disadvantage is that, unless the cloth material is of a kind to which the stickers will adhere, it will not be possible to attach any other cloth, mop or equivalent to the drier because they have no attachment parts fitted to these stickers. In prior art also the document EP 0 271 295 presents a floor rag clamp with springy arms to hold a rag.

OBJECT OF THE INVENTION

[0003] The object of the present invention is to create a floor treatment tool having a drier part to which it is possible to attach any dry, damp or wet cloth for sweeping a floor, after which the floor can be dried with the drier part.

FEATURES OF THE INVENTION

[0004] The floor treatment tool of the invention is characterized in what is presented in the characterizing part of claim 1.

[0005] According to the invention,

- the floor treatment tool comprises a joint between the handle and a connecting part of the drier part
- the tool has cloth holders on either side of the connecting part of the handle, said holders having at least one clamping part which, when pressed onto the drier part, is locked in place, and
- the edge part of the cloth, remains between the holders and the drier part or between the clamping parts of the holders and the drier part,

[0006] wherein

- the holder is made of flexible material and has the clamping part at one end a locking head at its opposite end,
- and the locking head can be locked to the drier part or to its connecting part by means of an aperture, cut-out or notch, so that the locking parts form a dovetail joint.

[0007] According to an embodiment, the clamping part is a clothespin-type clamp.

EXAMPLES

[0008] In the following, the invention will be described with reference to examples and the attached drawings, wherein

10 LIST OF FIGURES

[0009]

Fig. 5, 8 present different embodiments of the tool according to the invention.

Fig. 1-4, 6-7, 9-14 present different examples of the floor treatment tool and the cloth holders in diagrammatic side view,

Fig. 15 presents a cross-sectional view of the drier part of the floor treatment tool with a cloth attached to it by means of a holder.

Fig. 1 presents, an example of the floor treatment tool 10, that does not form a part of the invention, which comprises a handle 11 connected via a joint 12 to a drier part 20. The drier part 20 comprises a connecting part 21, to which the handle 11 is connected via the joint 12. Connected to the connecting part 21 in Fig. 1 are also two cloth holders 30a and 30b, which are pivoted on the connecting part 21 by joints 31a and 31b. Provided at the end of each cloth holder 30a and 30b is a clamping part 32a and 32b, which can be pressed onto the drier part 20 so that the cloth holders 30a and 30b are locked in place. The cloth is thus pressed between the drier part 20 and the saw-toothed edges 33a and 33b on the lower surface of the cloth holders 30a and 30b. When the cloth thus held in place is to be removed or changed, the cloth holders 30a and 30b are lifted upwards in Fig. 1, so that they turn about the joints 31 a and 31 b and the cloth is released from the gap between the cloth holders and the drier part 20.

Fig. 2 presents a second example of the floor treatment tool, that does not form a part of the invention, which has spikes 33a and 33b on the lower surface of the cloth holders 30a and 30b. When the cloth holders 30a and 30b are pressed into position against the counterpart 20, the spikes 33a and 33b lock the cloth in place.

Fig. 3 presents an example of the floor treatment tool that does not form a part of the invention, wherein the lower edges of the cloth holders 30a and 30b are not provided with spikes or equivalent. In this example, the cloth is clamped between the clamping parts 32a and 32b and the drier part 20 when the clamping parts 32a and 32b are pressed onto the drier part 20. Fig. 4 presents an example of the floor treatment tool that does not form a part of the invention, wherein each of the two pivoted cloth holders 30a and 30b

comprises two clamping parts, the first cloth holder 30a having clamping parts 32a and 32b while the second cloth holder 30b similarly has clamping parts 32c and 32d. in this case, the cloth is clamped by four clamping parts.

Fig. 5 presents a floor treatment tool in accordance with the present invention, in which the cloth holders 30a and 30b are locked to dovetail grooves or corresponding cutouts made in the spatula 20. In this case, the cloth holders 30a and 30b are preferably bodies formed from a flexible material, which have at one end a clamping part 32 fitted over the drier part 20 and at the opposite end a locking head 34 fitted to a corresponding groove or notch in the connecting part. As the cloth holders 30 are made of a flexible material, they need not be pivotally connected to the connecting part.

Fig. 6 presents an example of the floor treatment tool that does not form a part of the invention wherein the cloth holders 30a and 30b are pivoted on the drier part 20 via joints 31a and 31b provided on the drier part.

In Fig. 7, where an example of the floor treatment tool that does not form a part of the invention has been illustrated, the cloth holders 30a and 30b consist of clamping parts 32a and 32b connected to the drier part 20 by strings 35a and 35b.

[0010] Correspondingly, in Fig. 8, where a floor treatment tool in accordance with the present invention is shown, cloth holders 30a and 30b made of flexible material have been connected to the upper surface of the body part 26 of the drier part 20 by inserting expansions 34a and 34b provided at the ends of the cloth holders 30a and 30b into holes in the drier part, where the expansions 34a and 34b are locked.

[0011] In the example in Fig. 9, that does not form a part of the invention the parts 32a and 32b of the cloth holders 30a and 30b are connected by strings 35a and 35b to a sleeve 22 provided in conjunction with the handle 11. When the damp or perhaps wet cloth attached to the drier part 20 by means of the clamping parts 32a and 32b has become dirty in use, it can be easily removed by pulling the sleeve 22 on the handle 11 upwards, thus causing the clamping parts 32a and 32b as well as the cloth to be released from the drier part 20.

[0012] Fig. 10 corresponds to the example in Fig. 9 in other respects except that the strings 35a and 35b of the clamping parts 32a and 32b of the cloth holders 30a and 30b are passed to the opposite side of the sleeve 22 through an aperture in the connecting part 21. The device functions in a corresponding manner, but the strings 35a and 35b remain more controllably near the drier part 20 during use.

[0013] In Fig. 11, where an example of the floor treatment tool that does not form a part of the invention has been illustrated, the cloth holders 30a and 30b are fastened to the shaft of the connecting part 21 between the

handle 11 and the drier part 20.

[0014] Fig. 12 corresponds to the example in Fig. 10 in other respects except that the two cloth holders 30a and 30b are attached to opposite ends of the same string 35.

[0015] In Fig. 13, where an example of the tool that does not form a part of the invention has been shown, the drier part 20 has locking spikes 25a and 25b on the upper surface of the body part 26, onto which spikes the cloth can be pressed so that the spikes protrude through the cloth. The holders 30a and 30b can then be locked to the locking spikes by means of a locking hole 38, stud, button or equivalent. The edge part of the cloth thus remains in place between the holders and the body part 26 of the drier part 20.

[0016] In Fig. 14, where an example of the tool that does not form a part of the invention has been shown, the holders 30a and 30b are provided with locking spikes 37a and 37b, which can be locked by pressing to corresponding locking holes 24a and 24b provided in the body part 26 of the drier part 20. In this case, too, the edge part of the cloth remains in place between the holders and the body part 26 of the drier part 20.

[0017] Fig 15 presents diagrammatic cross-section of the drier part 20 of the floor treatment tool 10, showing that the cloth 40 is locked between the clamping part 32 of the cloth holder 30 and the body part 26 of the drier part 20. In the example in Fig. 15, the holder 30 of the cloth 40 is connected to the floor treatment tool 10 by a string 35. It can be seen from Fig. 15 that the cloth 40 is held on the drier 20 by its one edge 41, so that the rest of the cloth can be turned either under the drying spatula 23 for dry, damp or wet sweeping of a floor, or alternatively to a position beside the drying spatula 23, preferably to the front side of the drying spatula, for drying of the floor using the drying spatula. When the cloth 40 is on the front side of the drying spatula 23 relative to the direction of movement during the drying of the floor, the cloth 40 will collect and adsorb the water accumulated by the drying spatula 23.

ADDITIONAL REMARKS

[0018] It is obvious to the person skilled in the art that different embodiments of the invention may be varied within the scope of the claims presented below. It is also possible to use e.g. clothespin-type clamps attached to the drier part.

LIST OF REFERENCE NUMBERS

[0019]

10	floor treatment tool
11	handle
12	joint
20	drier part
21	connecting part

22 sleeve
 23 drying spatula
 24 locking hole
 25 locking spike
 26 body part of drier part
 30 holder
 31 joint
 32 clamping part
 33 saw-toothed edge
 34 locking head
 35 string
 36 spike
 37 locking spike
 38 locking hole
 40 cloth
 41 edge part of cloth

5

10

15

(32a-32d) of the holders and the drier part, **characterized in that** the cloth holders (30a, 30b) are bodies formed from a flexible material, which have at one end the clamping part (32) fitted over the drier part (20) and at the opposite end a locking head (34), which is adapted to be locked to the drier part (20) or to its connecting part (21) by means of an aperture, cut-out or notch, so that the locking parts form a dovetail joint.

2. A floor treatment tool (10) according to claim 1, **characterized in that** the clamping part (32) of the cloth holder (30a, 30b) is a clothespin-type clamp, which is adapted to be attached to the drier part (20).

Claims

1. A floor treatment tool (10) comprising a handle (11), a drier part (20) provided with a drying spatula (23), and a dry, damp or wet cloth (40), attachable to the drier part,

- wherein the tool has holders (30a, 30b) in conjunction with the drier part (20) so that the drier part as one holder on either side of the handle (11),

- wherein the holders (30a, 30b) are adapted to be fastened to the drier part (20) so that an edge part (41) of the dry, damp or wet cloth (40), remains between the drier part and the holder, on either side of the handle (11),

- wherein both sides of the cloth (40) can be used, in such manner that

- in a first position of the cloth (40), the cloth fastened at its edge part (41) to the drier part (20) is turned under the drying spatula (23) of the drier part (20) for dry, damp or wet sweeping of the floor, and that

- in second position of the cloth (40), the cloth is turned to a position beside the drying spatula, preferably to the front side of the drying spatula, for drying of the floor by means of the drying spatula,

- wherein the floor treatment tool (10) further comprises a joint (12) between the handle (11) and a connecting part (21) of the drier part (20),

- wherein the tool has cloth (40) holders (30a, 30b) on either side of the connecting part (21) of the handle (11), said holders having at least one clamping part (32a-32d) which, when pressed onto the drier part (20), is locked in place,

- wherein the edge part (41) of the cloth (40) remains between the holders (30a, 30b) and the drier part (20) or between the clamping parts

Patentansprüche

1. Ein Gerät zur Fußbodenpflege (10), bestehend aus einem Griff (11), einem Trocknerteil (20) mit einem Wischblatt (23) und einem trockenen, feuchten oder nassen Tuch (40), das an dem Trocknerteil angebracht werden kann,

- wobei das Gerät Halterungen (30a, 30b) in Verbindung mit dem Trocknerteil (20) besitzt, derart, dass das Trocknerteil auf beiden Seiten des Griffs (11) mit je einer Halterung ausgestattet ist,

- wobei die Halterungen (30a, 30b) geeignet sind, an dem Trocknerteil (20) derart befestigt zu werden, dass auf beiden Seiten des Griffs (11) ein Randteil (41) des trockenen, feuchten oder nassen Tuchs (40) zwischen dem Trocknerteil und der Halterung verbleibt,

- wobei beide Seiten des Tuchs (40) benutzt werden können, derart, dass in einer ersten Position des Tuchs (40) das mit seinem Randteil (41) am Trocknerteil (20) befestigte Tuch zum trockenen, feuchten oder nassen Wischen des Fußbodens unter das Wischblatt (23) des Trocknerteils (20) umgeschlagen wird, und dass in einer zweiten Position des Tuchs (40) das Tuch zur Trocknung des Fußbodens mit dem Wischblatt in eine Position neben dem Wischblatt, vorzugsweise an der Vorderseite des Wischblatts gebracht wird,

- wobei das Gerät zur Fußbodenpflege (10) außerdem ein zwischen dem Griff (11) und dem Anschlussstück (21) des Trocknerteils (20) befindliches Gelenk (12) besitzt,

- wobei das Gerät auf beiden Seiten des Anschlussstücks (21) des Griffs (11) Halterungen (30a, 30b) für das Tuch (40) besitzt, die mindestens ein Klemmteil (32a-32d) aufweisen, das, wenn es auf das Trocknerteil (20) gedrückt wird, in dieser Stellung verriegelt wird,

- wobei das Randteil (41) des Tuchs (40) zwi-

schen den Halterungen (30a, 30b) und dem Trocknerteil (20) oder zwischen den Klemmteilen (32a-32d) der Halterungen und dem Trocknerteil verbleibt, **dadurch gekennzeichnet, dass** die Tuchhalterungen (30a, 30b) Körper aus einem flexiblen Material sind, die an einem Ende das Klemmteil (32) aufweisen, das über dem Trocknerteil (20) angebracht ist, und am anderen Ende einen Verriegelungskopf (34), der geeignet ist, mit dem Trocknerteil (20) oder dessen Anschlussstück (21) mittels einer Öffnung, Aussparung oder Einkerbung verriegelt zu werden, derart, dass die miteinander verriegelten Teile eine Schwalbenschwanzverbindung bilden.

2. Ein Gerät zur Fußbodenpflege (10) nach Anspruch 1, **dadurch gekennzeichnet, dass** das Klemmteil (32) der Tuchhalterung (30a, 30b) eine Art Wäscheklammer ist, die sich am Trocknerteil (20) befestigen lässt.

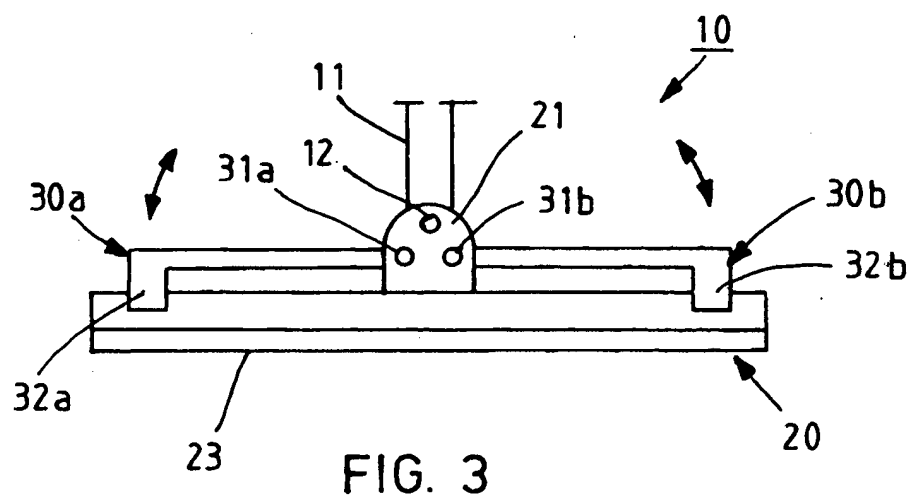
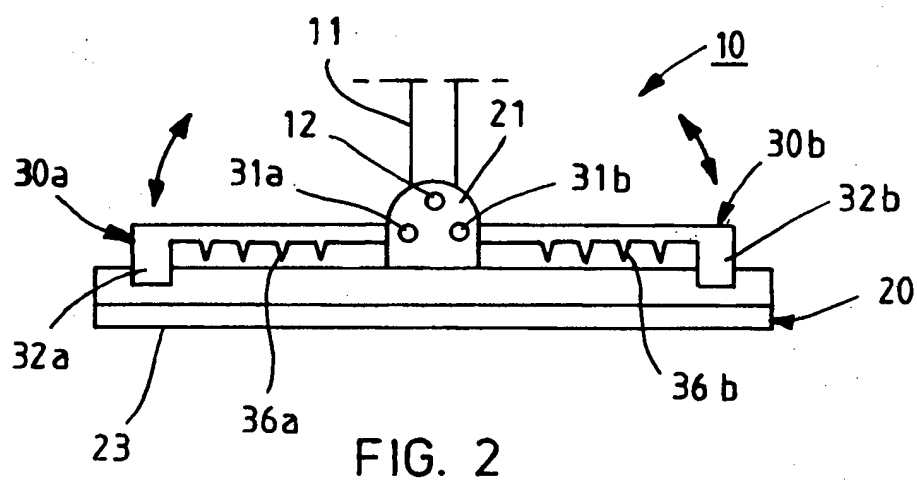
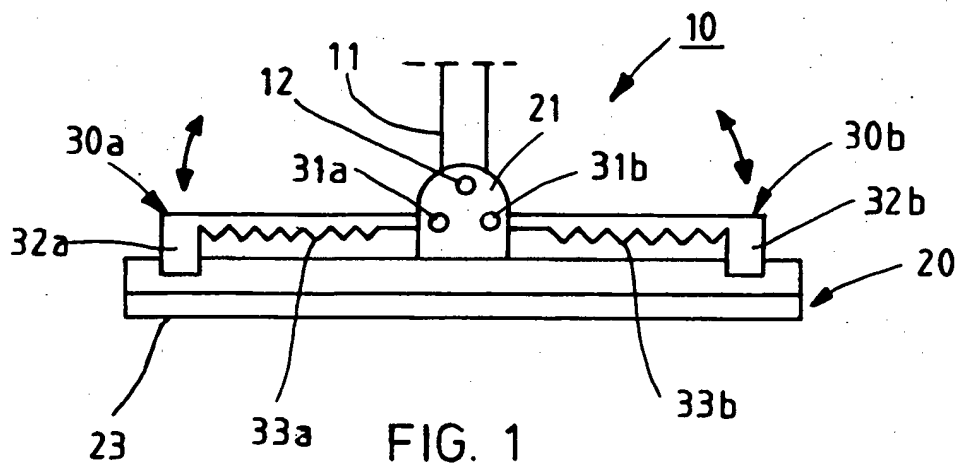
Revendications

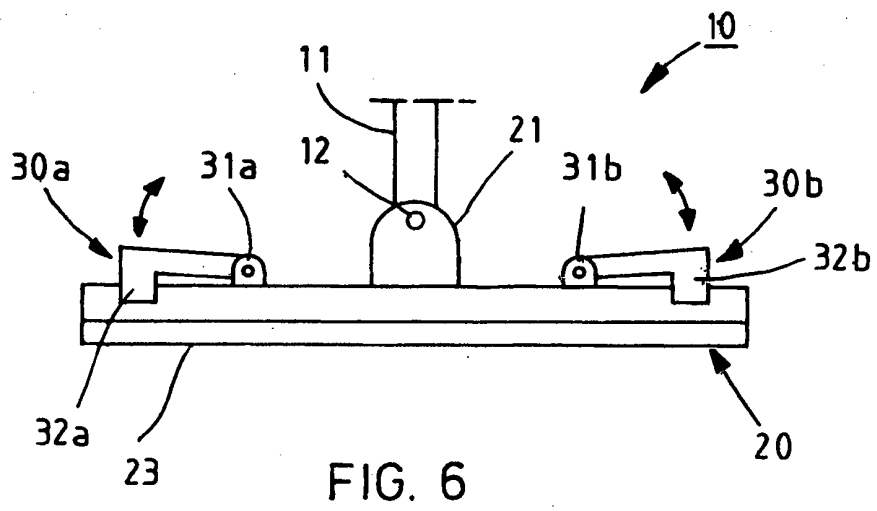
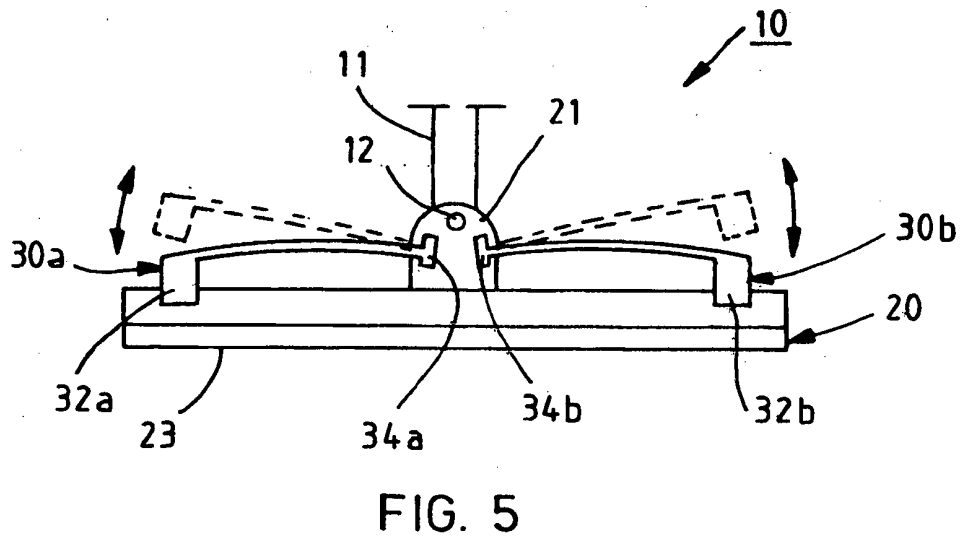
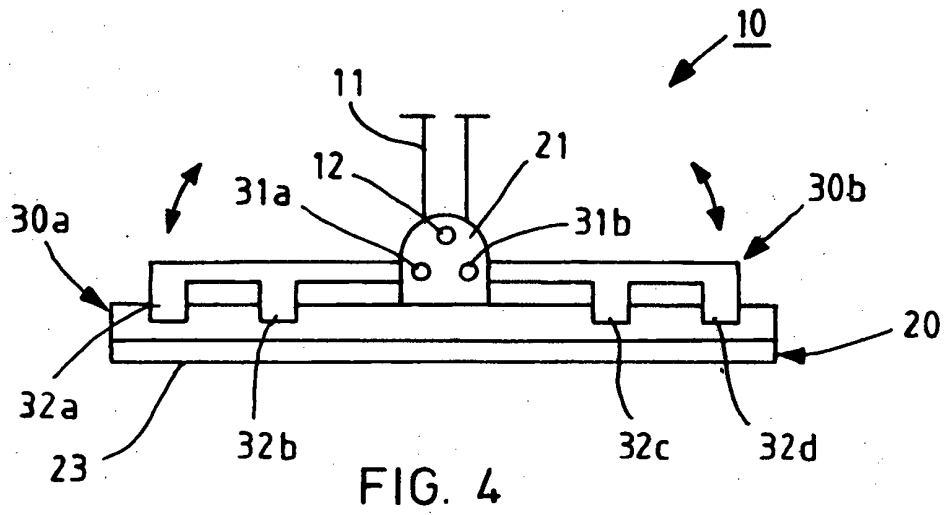
1. Outil (10) pour le traitement des sols, comportant un manche (11), une partie de séchage (20) pourvue d'une spatule de séchage (23), et un tissu sec, humide ou mouillé (40), pouvant se fixer sur la partie de séchage,
 - l'outil ayant des supports (30a, 30b) en connexion avec la partie de séchage (20) de façon à ce que la partie de séchage ait un support de chaque côté du manche (11),
 - les supports (30a, 30b) étant adaptés pour être fixés sur la partie de séchage (20) de façon à ce qu'une portion de bord du tissu sec, humide ou mouillé (40) reste entre la partie de séchage et le support de chaque côté du manche (11),
 - les deux côtés du tissu (40) pouvant être utilisés de façon à ce que, dans une première position du tissu (40), le tissu fixé à partir de sa portion de bord (41) sur la partie de séchage (20) soit tourné sous la spatule de séchage (23) de la partie de séchage (20) pour le balayage sec, humide ou mouillé du sol et que, dans une seconde position du tissu (40), le tissu soit tourné dans une position à côté de la spatule de séchage, de préférence vers le côté avant de la spatule de séchage, pour le séchage du sol à l'aide de la spatule de séchage,
 - l'outil (10) pour le traitement des sols comportant de plus une jonction (12) entre le manche (11) et une partie de connexion (21) de la partie de séchage (20),
 - l'outil comportant des supports (30a, 30b) de tissu (40) de chaque côté de la partie de con-

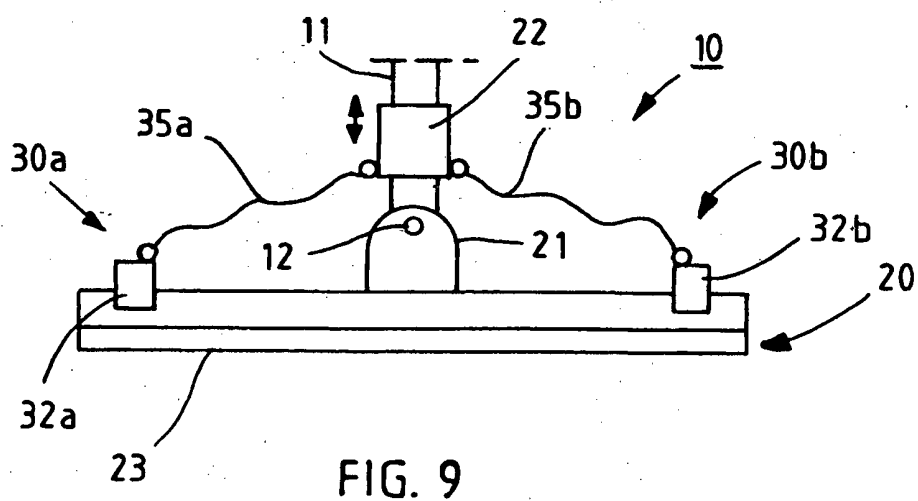
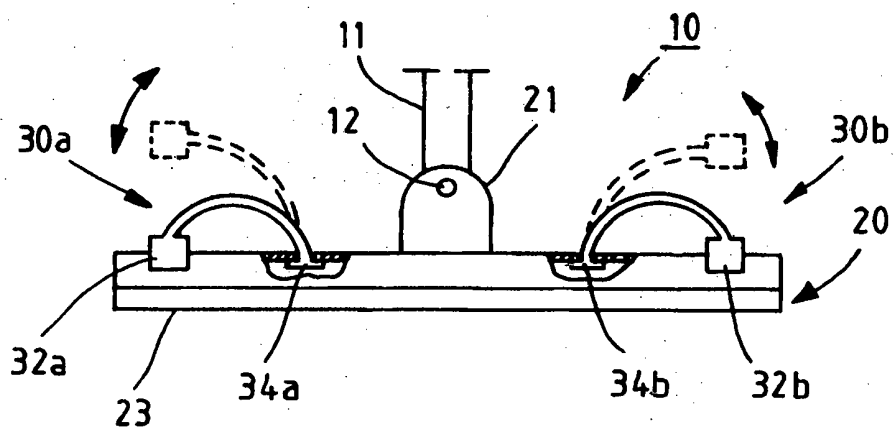
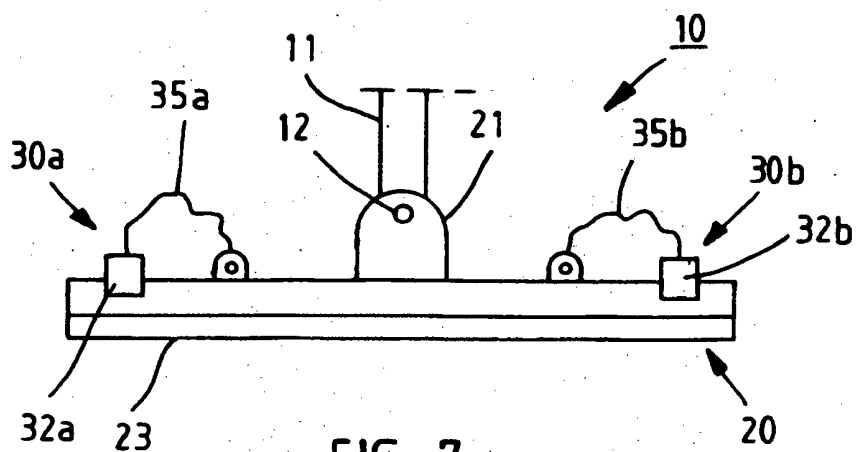
nexion (21) du manche (11), lesdits supports ayant au moins une partie de verrouillage (32a-32d) qui, lorsque pressée sur la partie de séchage (20), est verrouillée en place,

- la portion de bord (41) du tissu (40) restant entre les supports (30a, 30b) et la partie de séchage (20) ou entre les parties de verrouillage (32a-32d) des supports et la partie de séchage, **caractérisé en ce que** les supports de tissu (30a, 30b) sont des éléments formés à partir d'un matériau souple qui ont, à une extrémité, la partie de verrouillage (32) montée sur la partie de séchage (20) et, à l'extrémité opposée, une tête de verrouillage (34) adaptée pour être verrouillée sur la partie de séchage (20) ou sur sa partie de connexion (21) à l'aide d'une ouverture, d'un creux ou d'une entaille de façon à ce que les parties de verrouillage forment un joint en queue d'aronde.

2. Outil (10) pour le traitement des sols selon la revendication 1, **caractérisé en ce que** la partie de verrouillage (32) du support de tissu (30a, 30b) est un dispositif de verrouillage de type pince à linge, qui est adapté pour être fixé sur la partie de séchage (20).







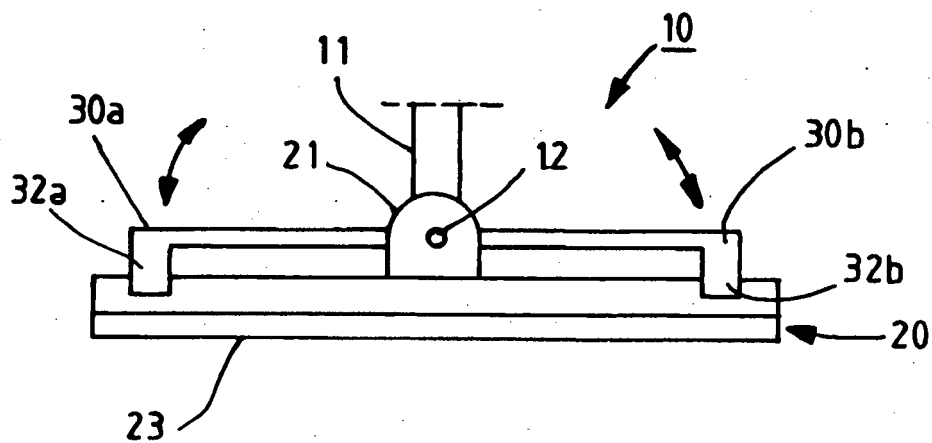


FIG. 11

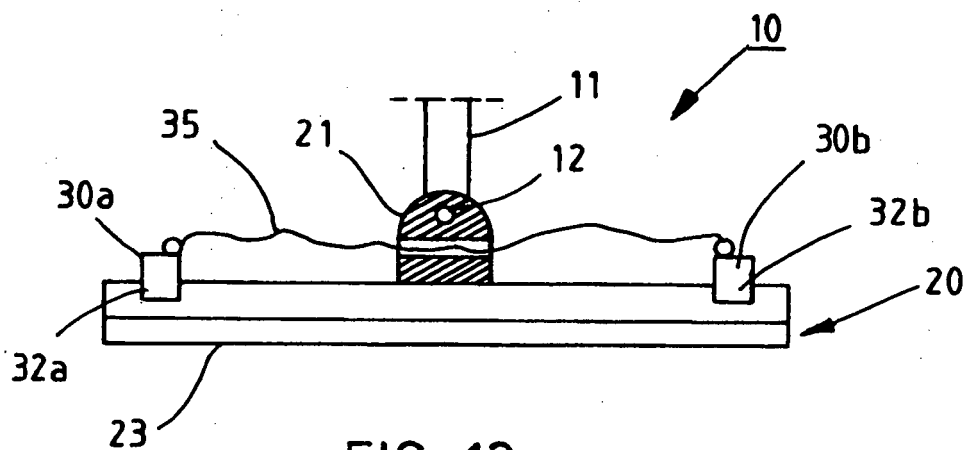


FIG. 12

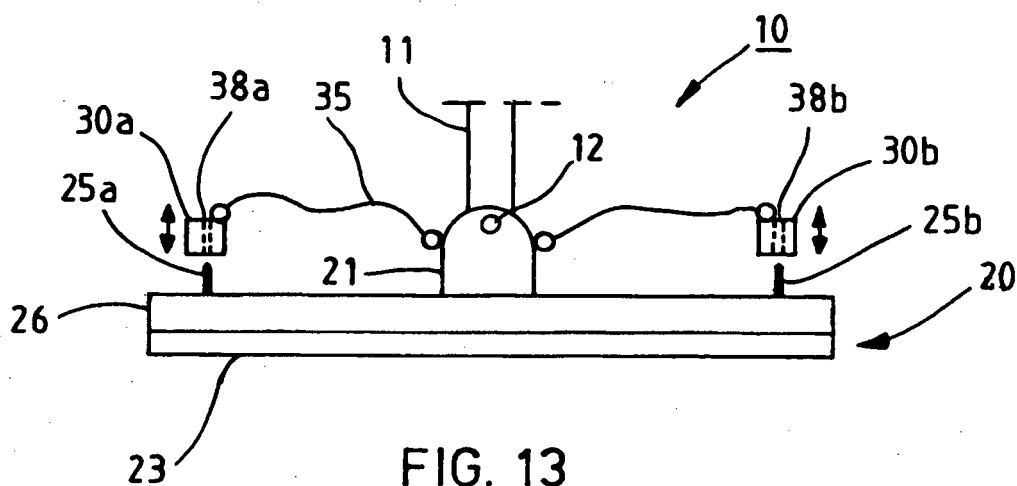


FIG. 13

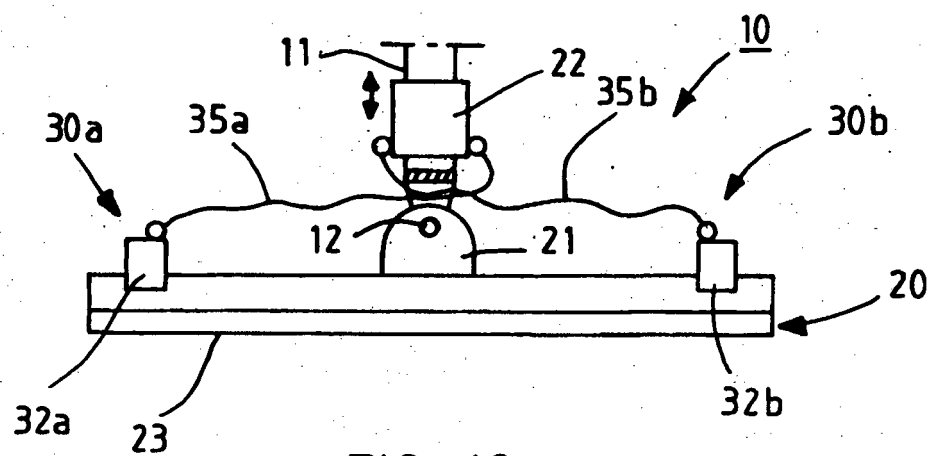


FIG. 10

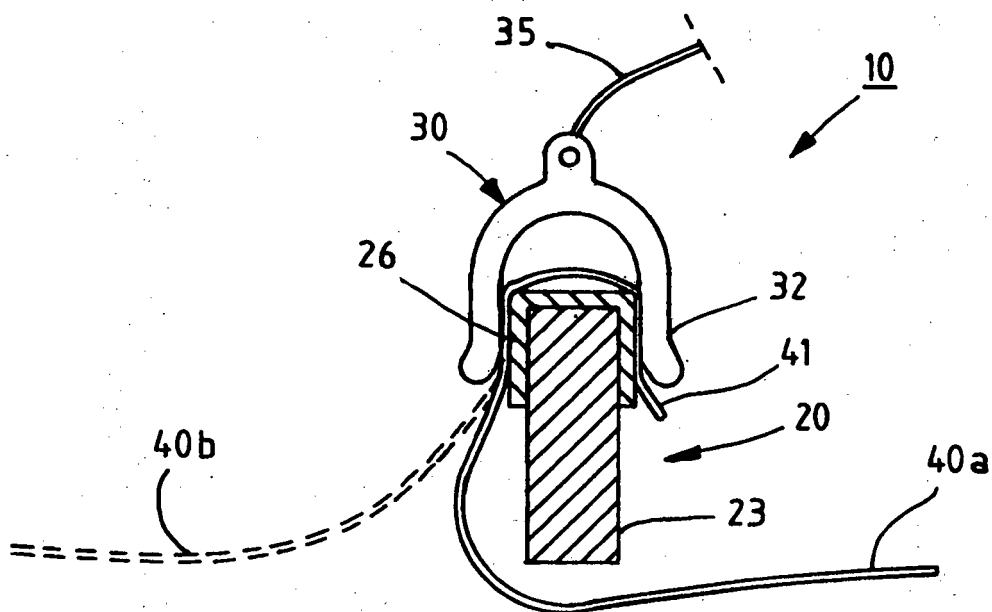
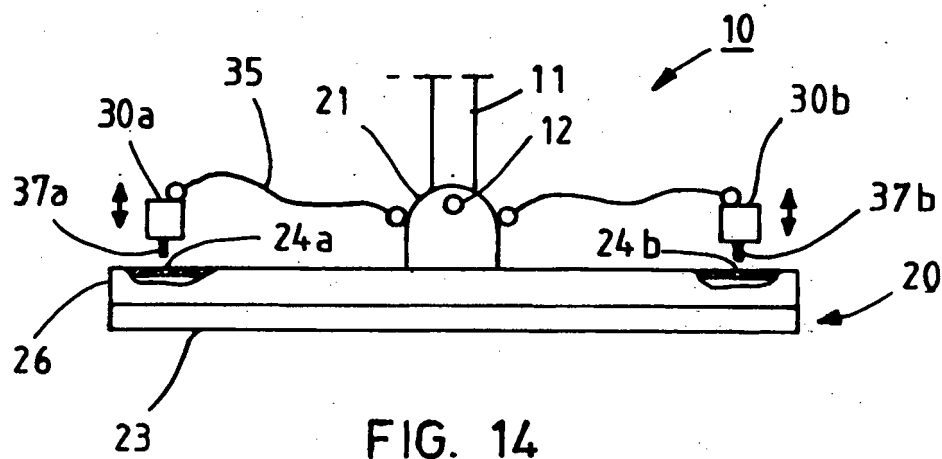


FIG. 15



REFERENCES CITED IN THE DESCRIPTION

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