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(54) **A HAND-HELD STEAMER HEAD**

TRAGBARER DÄMPFERKOPF

TÊTE À VAPEUR PORTATIVE

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EP 3 027 802 B1

Description

FIELD OF THE INVENTION

[0001] The present application relates to a hand-held steamer head. In particular, the present application relates to a hand-held steamer head for a garment steamer. The present application also relates to a steamer comprising a hand-held steamer head.

BACKGROUND OF THE INVENTION

[0002] Garment steamers are known for steaming garments to remove creases from a fabric material of a garment through the use of heat and moisture. Such a garment steamer generally comprises a steam generating unit and a hand-held steamer head connected to the steam generating unit by a flexible hose through which steam is conveyed to the steamer head. The steamer head is provided with one or more steam holes to discharge steam onto the fabric being treated. Typically, the garment is hung on a hanger during treatment by the steamer and the user positions the steamer head over the garment to remove creases. Such a steamer head is disclosed in WO 2012/066473 and comprises a body with a steaming face and a handle portion. The user grips the handle portion to position the steaming face over the section of fabric to be treated. Steam flows from the hose into a distribution chamber and passes through the steam holes to be directed at a garment. US 2008/034813 A1 discloses a drip-free garment steamer in which a plurality of nozzle apertures extend from the nozzle plate into the inner cavity. The nozzles comprise hollow tubes configured to minimize water within the inner cavity of the steamer body which has condensed from the steam passing through the steamer body from flowing through the apertures.

[0003] CN 202337905U discloses a steam brush in whcih a condenstation plate is mounted in the steam brush cover body, in order to prevent dripping from the steam brush.

[0004] However, condensation is common in the steam distribution chamber and so condensed water collects in the steam distribution chamber and flows back towards the hose. This may cause a bottleneck at the inlet to the steam distribution chamber, which is known to lead to a burst of steam and condensed water being ejected through the steam vents, known as "spitting", which may form damp patches on the garment.

SUMMARY OF THE INVENTION

[0005] It is an object of the invention to provide a hand-held steamer head, a hand-held steamer head for a garment steamer and a steamer comprising a hand-held steamer head which alleviates or substantially overcomes the problems mentioned above.

[0006] The invention is defined by the independent claims; the dependent claims define advantageous embodiments.

[0007] According to an aspect of the present invention, there is provided a hand-held steamer head comprising a steam distribution chamber, a steam inlet through which steam is received from a steam channel and provided to the steam distribution chamber, one or more steam vents through which steam in the steam distribution chamber is expelled from the steamer head, and a barrier in the steam distribution chamber configured to prevent a direct flow path from the steam inlet to the or each steam vent.

[0008] The barrier helps to restrict accumulated condensed water droplets from being ejected from the steam vents towards an item being steamed. This helps restrict the formation of wet patches on the item, for example a fabric of a garment.

[0009] The or each steam vent has a steam vent outlet, and the barrier in the steam distribution chamber is configured to prevent a direct flow path from the steam inlet to the steam vent outlet of the or each steam vent. This means that the barrier intersects a linear path from the steam inlet to the steam vent outlet of the or each steam vent. The steam distribution chamber may comprise two or more steam vents defining a steam vent zone, wherein the barrier is configured to prevent a direct flow path from the steam inlet to the steam vent zone. With this arrangement the barrier is able to obscure all the steam vents forming the steam vent zone.

[0010] The one or more steam vents may be disposed on an opposite side of the steam distribution chamber to the steam inlet.

[0011] The barrier may extend at least partially across the steam distribution chamber. With this arrangement the flow of steam through the steam inlet and/or steam vents is not restricted.

[0012] The barrier may extend transverse to a direct flow path between the steam inlet and the or each steam vent.

[0013] The barrier may define a flow path aperture through which steam flows between the steam inlet and the or each steam vent. The flow path aperture may be offset from a direct flow path from the steam inlet to the or each steam vent.

[0014] The flow path aperture may be formed between an edge of the barrier and an inner surface of the steam distribution chamber. With this arrangement the barrier acts to restrict water droplets from passing from the steamer head, but does not restrict the flow of steam through the steamer head.

[0015] The barrier may be spaced from the inner surface of the steam distribution chamber, or the barrier may extend from the inner surface of the steam distribution chamber.

[0016] The cross-sectional area of the flow path aperture may be greater than the cross-sectional area of the steam inlet. With this arrangement a build-up of steam pressure is prevented at the flow path aperture.

[0017] The barrier may be impermeable. With this arrangement, water droplets are not able to pass through the barrier, and so water droplets are restricted from being received between the barrier and the one or more steam vents.

[0018] The steamer head may have a body and the barrier may be integrally formed with the body. With this arrangement ease of manufacture and assembly is maximized.

[0019] At least a portion of the barrier may be formed from a porous material. With this arrangement water droplets impacting the barrier are trapped and so do not flow towards the steam inlet.

[0020] The steam channel may be configured to extend at an oblique angle to the steam distribution chamber.

[0021] The one or more steam vents may be defined by a vent side wall protruding in the steam distribution chamber. This means that any water droplets received between the barrier and the one or more steam vents are further restricted from passing through the one or more steam vents.

[0022] The hand-held steamer may further comprise a steaming face which is positionable against an object to be steamed, wherein the steam vent outlet of the or each steam vent is an opening in the steaming face.

[0023] According to another aspect of the invention, there is provided a garment steamer comprising the hand-held steamer head of the invention.

[0024] These and other aspects of the invention will be apparent from and elucidated with reference to the embodiments described hereinafter.

BRIEF DESCRIPTION OF THE DRAWINGS

[0025] Embodiments of the invention will now be described, by way of example only, with reference to the accompanying drawings, in which:

Fig. 1 shows a diagrammatic cross-sectional plan view of a hand-held steamer head; and

Fig. 2 shows a diagrammatic cross-sectional side view of the hand-held steamer head shown in Fig. 1.

DETAILED DESCRIPTION OF EMBODIMENTS

[0026] Referring now to Figs. 1 and 2, a hand-held steamer head 1 of a garment steamer is shown. The steamer head 1 comprises a body 2 with a steaming face 3 and a handle portion 4. A flexible hose 5 of the garment steamer is mounted to and extends from the body 2. The flexible hose 5 fluidly communicates a steam generating unit (not shown) with the hand-held steamer head 1. Therefore, steam is provided to the steamer head 1 from the steam generating unit.

[0027] The body 2 is formed from a molded plastic, although it will be understood that the body 2 may be formed from an alternative material. The steamer head 1 is formed from one or more heat resistant materials.

[0028] The steaming face 3 is at a front end 6 of the body 2. The handle portion 4 is at a rear end 7 of the body 2. The steaming face 3 forms a planar surface that, in use, is positioned against a surface to be steam treated, such as the fabric of a garment. The steaming face 3 may sit flush with and be passed over the surface to be steam treated. The steaming face 3 has an outer non-stick layer, although this layer may be omitted.

[0029] The steamer head 1 has a steam distribution chamber 8. The steam distribution chamber 8 is in the body 2. The steam distribution chamber 8 defines a space in the body 2 through which steam from the steam generating unit passes to be provided to a surface to be steamed. The steam distribution chamber 8 has a steam inlet 9. The steam inlet 9 is an opening in the steam distribution chamber 8 through which steam is provided into the steam distribution chamber 8. In the present embodiment the steam inlet 9 is a circular opening, although the steam inlet 9 may have an alternative shape.

[0030] The steam inlet 9 is formed in an inner surface 15 of the steam distribution chamber 8. The steam inlet 9 may have a peripheral rim upstanding in the steam distribution chamber 8. The steam inlet 9 communicates with the steam distribution chamber 8 at a rear end of the steam distribution chamber 8.

[0031] A steam channel 10 is formed in the rear end 7 of the body 2. The steam channel 10 provides a steam passage from the flexible hose 5 to the steam inlet 9. A frontal end of the steam channel 10 defines the steam inlet 9. The steam channel 10 extends away from the steam inlet 9. The steam channel 10 is tubular. The steam channel 10 is formed in the handle portion 4 of the body 2.

[0032] The flexible hose 5 communicates with a distal end of the steam channel 10 to the steam inlet 9. The flexible hose 5 is mounted in the distal end of the steam channel 10. The flexible hose 5 is mounted by known means and so a detailed description will be omitted herein. In a further embodiment the flexible hose 5 is integrally formed with the steam channel 10. In the present embodiment the steam channel 10 fluidly communicates between the flexible hose 5 and the steam inlet 9. However, it will be understood that in an alternative arrangement the flexible hose 5 may extend to the steam inlet 9, and the steam channel 10 may be omitted.

[0033] The steamer head 1 has an array of steam vents 12. The steam vents 12 allow steam to pass from the body 2 to outside the body 2. The steam vents 12 communicate between the steam distribution chamber 8 and outside the body 2. That is, each steam vent 12 fluidly communicates the steam distribution chamber 8 with outside the body 2. Each steam vent 12 has a steam vent outlet 13 in the steaming face 3. The steam vent outlet 13 of each steam vent 12 is an opening. Alternatively, each steam vent 12 has two or more openings acting as steam vent outlets in the steaming face 3. The steam vents 12 form an array of steam vent outlets 13 in the steaming face 3. In the present embodiment each steam vent outlet 13 is circular, however it will be understood

that the shape of the steam vent outlets may vary. Although an array of steam vents 12 are described herein, it will be understood that in an alternative arrangement the steamer head 1 has one steam vent. In such an embodiment the steam vent may have one or multiple steam vent outlets.

[0034] Each steam vent 12 has a vent side wall 14. The steam vents 12 are tubular. Each steam vent 12 extends into the steam distribution chamber 8. Alternatively each steam vent 12 extends to the inner surface 15 of the steam distribution chamber 8. The steam vent openings 13 are evenly distributed across the steaming face 3. A border 16 is formed around the periphery of the array of steam vent outlets 13 to space the steam vent outlets 13 from the peripheral edge of the steaming face 3. In the present arrangement, the longitudinal axes of the steam vents 12 extends at an oblique angle to the steaming face 3, although the angle may differ.

[0035] The area covered by the steam vents 12 defines a steam vent zone 17. That is the area across which the array of steam vents 12 extend. The steam vent zone 17 is contained within the outer periphery of the array of steam vents 12.

[0036] The steam vents 12 are formed at the front end 6 of the body 2. The steam vents 12 communicate with a front end of the steam distribution chamber 8. The steam vents 12 are at an opposite end of the steam distribution chamber 8 to the steam inlet 9. Therefore, the steam distribution chamber 8 extends between the steam inlet 9 and the steam vents 12.

[0037] The steam distribution chamber 8 is funnel shaped. That is, the steam distribution chamber 8 expands away from the steam inlet 9. The cross-sectional area of the steam distribution chamber 8 increases between the steam inlet 9 and the steam vents 12. That is, at least one side of the inner surface 15 of steam distribution chamber 8 diverges away from an opposing side of the inner surface 15. Therefore, the steam distribution chamber 8 diverges from the rear end of the steam distribution chamber 8 to the front end of the steam distribution chamber 8.

[0038] A barrier 20 is in the steam distribution chamber 8. The barrier 20 extends partially across the steam distribution chamber 8. The barrier 20 is a panel. The barrier 20 has front and rear planar faces 21, 22, although it will be understood that the barrier 20 may have a different arrangement. For example, the barrier 20 may be arcuate.

[0039] The barrier 20 upstands in the steam distribution chamber 8. The barrier 20 extends transversely across the steam distribution chamber 8. The barrier 20 is disposed midway along the steam distribution chamber 8. However, the position of the barrier may vary. The barrier 20 is fluid impermeable. The barrier 20 acts as a fluid shield.

[0040] The barrier 20 is spaced from the inner surface 15 of the steam distribution chamber 8. Support arms 23 extend between an outer edge 25 of the barrier 20 and the inner surface 15 of the steam distribution chamber 8. A flow path aperture 24 is formed between the outer edge 25 of the barrier 20 and the steam distribution chamber 8. The support arms 23 intersect the flow path aperture 24. The flow path aperture 24 ensures that restriction of steam flow through the steam distribution chamber 8 due to the barrier 20 is minimized. The flow path aperture 24 is formed around the barrier 20.

[0041] Although in the present embodiment the barrier 20 is spaced from the inner surface 15 of the steam distribution chamber 8, it will be understood that in an alternative embodiment the barrier 20 upstands from the inner surface 15. In such an embodiment, the flow path aperture 24 is formed between a free edge of the barrier 20 and the inner surface 15 of the steam distribution chamber 8. The free edge of the barrier 20 is formed by the or part of the outer edge 25. In another embodiment the barrier extends fully across the steam distribution chamber 8 and the flow path aperture 24 is formed by holes formed through the barrier 20 acting as flow path barrier aperture portions.

[0042] The barrier 20 is integrally formed with the body 2. Alternatively, the barrier 20 is mounted to the body 2 in the steam distribution chamber 8.

[0043] The barrier 20 is disposed in the steam distribution chamber 8 between the steam inlet 9 and the steam vents 12. The barrier 20 obscures the path between the steam inlet 9 and the steam vents 12. The barrier 20 prevents a direct flow path from the steam inlet 9 to any of the steam vents 12. In the present embodiment the barrier 20 prevents a direct flow path from the steam inlet 9 to any of the steam vent outlets 13 of the steam vents 12.

[0044] The barrier 20 intersects all linear paths from the steam inlet 9 to the steam outlets 13 of the steam vents 12. The barrier 20 blocks any line of sight between the steam inlet 9 and the steam vent outlets 13. Therefore, it is not possible for a water droplet to flow along a linear path from the steam inlet 9 to the steam vents 12. This means that any water droplet flowing from the steam inlet 9 along a linear path will impact the rear face 22 of the barrier 20, or the inner surface 15 of the steam distribution chamber 8.

[0045] The flow path aperture 24 is offset from a direct line between the steam inlet 9 and the steam vents 12. That is, the flow path aperture 24 does not intersect a direct line of sight between the steam inlet 9 and the steam vents 12.

[0046] In the present embodiment the barrier 20 is one barrier element. In another embodiment the barrier 20 is formed by two or more barrier elements. For example, in one embodiment the barrier 20 has first and second barrier elements. The first barrier element is spaced from the second barrier element to provide a flow path therebetween. Free ends of the first and second barrier elements overlap, but are spaced from each other. The first and second barrier elements are configured to prevent a direct flow path between the steam inlet 9 and the steam

vents 12. The first and second barrier elements intersect all linear paths from the steam inlet 9 to the steam vent outlets 13 of the steam vents 12. This means that any water droplet flowing from the steam inlet 9 along a linear path will impact one of the first or second barrier elements of the barrier 20, or the inner surface 15 of the steam distribution chamber 8.

[0047] To remove creases from the fabric a user generally hangs the fabric from a garment hanger and locates the steamer head 1 against the fabric.

[0048] Once the steamer head 1 is positioned against the fabric, the steam generating unit (not shown) is operated or steam is released, for example by opening a control valve, so that steam generated by the steam generating unit (not shown) flows along the flexible hose 5 to the steamer head 1. The steam flows from the flexible hose 5, along the steam channel 10 to the steam inlet 9. Steam flows into the steam distribution chamber 8 through the steam inlet 9. Steam then flows through the steam distribution chamber 8 to the steam vents 12. The steam is then able to pass through the steam vents 12 to be provided at the steaming face 3. That is, the steam is expelled through the array of steam vent outlets 13 towards a surface to be steamed which is disposed proximate thereto.

[0049] As the steam passes through the steam distribution chamber 8, the steam flows through the flow path aperture 24. The flow path aperture 24 is sized to limit restriction of the flow of steam through the steam distribution chamber 8. In the present embodiment, the flow path aperture extends around the periphery of the barrier 20 and so has a suitable area.

[0050] The steam is able to flow around the barrier 20 with minimal restriction. However, the steam takes a non-linear path along the steam distribution chamber 8 between the steam inlet 9 and the steam vents 12.

[0051] As steam passes through the steam distribution chamber 8, condensation occurs. Condensation may also occur in the steam channel 10. The steamer head 1 does not have heating means and so the steam begins to cool as it passes through the steamer head 1. As the steam distribution chamber 8 is inclined condensation droplets in the steam generation chamber 8 may flow back towards the steam inlet 9, and collate at the steam inlet 9 and/or in the steam channel 10. The condensation at the steam inlet 9 and/or steam channel 10 causes the area of the steam flow path to reduce. Therefore, an increased pressure occurs along the flow path prior to the steam inlet 9. This increased pressure causes momentary bursts of steam and condensed water. This burst of steam and condensed water is directed from the steam inlet 9 towards the steam vents 12. However, the droplets of condensed water tend to follow a linear path. Therefore, the droplets expelled from the steam inlet 9 towards the steam vent zone 17 impact the barrier 20. This means that they do not pass through the steam vents 12. Such linear paths are shown in Fig. 2 by dashed lines.

[0052] Droplets of water that pass along a linear path which would not impact the barrier 20 will pass the barrier 20. However, as the line-of-sight of the steam vent zone 17 is obscured by the barrier 20, the path of the water droplets means that they will impact the inner surface 15 of the steam distribution chamber 8 around the steam vent zone 17, and so will not pass through any of the steam vents 12.

[0053] The water droplets impacting the barrier 20 and the inner surface 15 of the steam distribution chamber 8 will flow along the base of the steam distribution chamber 8 away from the steam vents 12.

[0054] The steam without water droplets will flow out of the plurality of steam vents 12 towards the fabric disposed proximate thereto. The steam acts on the fabric to remove creases in the fabric.

[0055] The total cross-sectional area of the flow path aperture 24 is larger than the cross-sectional area of the steam inlet 9. The larger cross-sectional area prevents a pressure build-up at the flow path aperture 24 so that a burst of steam and condensed water can be avoided, therefore preventing condensed water droplets from being directed from the flow path aperture 24 towards the steam vents 12.

[0056] Although in the above described embodiments the barrier 20 is impermeable, it will be understood that in an alternative arrangement the barrier is porous, for example the barrier 20 may be formed from felt or foam. An advantage of this arrangement is that the pores will act to trap the water droplets that impact the barrier 20 and so prevent the water droplets flowing back towards the steam inlet 9. In one embodiment, the barrier 20 may have a front layer which is impermeable and a rear layer which is porous. The front layer may act as a support.

[0057] Although in the above described embodiments the steamer head 1 is fluidly communicated with the steam generating unit by the flexible hose 5, in alternate embodiments (not shown) the flexible hose may be omitted and replaced by a rigid conduit. In another embodiment, the steamer head 1 may be directly fluidly connected to the steam generating unit, which may be disposed in the handle and/or housing and provides steam to the steam inlet 9.

[0058] Although in the above described embodiments the steamer head 1 forms part of a garment steamer, it will be understood that the steamer head may be included in other types of steaming devices.

[0059] It should be noted that the above-mentioned embodiments illustrate rather than limit the invention, and that those skilled in the art will be able to design many alternative embodiments without departing from the scope of the appended claims. It will be appreciated that the term "comprising" does not exclude other elements or steps and that the indefinite article "a" or "an" does not exclude a plurality. A single unit may fulfill the functions of several items recited in the claims. The mere fact that certain measures are recited in mutually different dependent claims does not indicate that a combination of these measures cannot be used to an advantage. Any

reference signs in the claims should not be construed as limiting the scope of the claims.

[0060] Although claims have been formulated in this application to particular combinations of features, it should be understood that the scope of the disclosure of the present invention also includes any novel features or any novel combinations of features disclosed herein either explicitly or implicitly or any generalization thereof, whether or not it relates to the same invention as presently claimed in any claim and whether or not it mitigates any or all of the same technical problems as does the parent invention. The applicants hereby give notice that new claims may be formulated to such features and/or combinations of features during the prosecution of the present application or of any further application derived therefrom.

Claims

1. A hand-held steamer head (1) comprising
a steam distribution chamber (8),
a steam inlet (9) through which steam is received from a steam channel (10) and provided to the steam distribution chamber,
one or more steam vents (12) through which steam in the steam distribution chamber is expelled from the steamer head, and
wherein the or each steam vent (12) has a steam vent outlet (13), wherein a barrier (20) in the steam distribution chamber (8) is configured to prevent a direct flow path from the steam inlet (9) to the steam vent outlet (13) of the or each steam vent (12), the barrier (20) being arranged to intersect a linear path of flow from the steam inlet to the steam vent outlet (13) of the or each steam vent (12),
wherein the steam distribution chamber (8) comprises two or more steam vents (12) defining a steam vent zone (17), wherein the barrier (20) extends at least partially across the steam distribution chamber (8), extends transverse to a direct flow path between the steam inlet (9) and the or each steam vent (12), and is configured to prevent a direct flow path from the steam inlet (9) to the steam vent zone,
characterised in that the barrier (20) defines a flow path aperture (24) through which steam flows between the steam inlet (9) and the or each steam vent (12) and which is offset from a direct flow path from the steam inlet to the or each steam vent, and wherein the cross-sectional area of the flow path aperture (24) is greater than the cross-sectional area of the steam inlet (9).

2. The hand-held steamer head (1) according to claim 1, wherein the one or more steam vents (12) are disposed on an opposite side of the steam distribution chamber (8) to the steam inlet (9).

3. The hand-held steamer head (1) according to claim 1 or 2, wherein the flow path aperture (24) is formed between an edge of the barrier (20) and an inner surface (15) of the steam distribution chamber (8).

4. The hand-held steamer head (1) according to claim 3, wherein the barrier (20) is spaced from the inner surface (15) of the steam distribution chamber (8).

5. The hand-held steamer head (1) according to any one of the preceding claims, wherein the barrier (20) is impermeable.

6. The hand-held steamer head (1) according to any one of claims 1 to 4, wherein at least a portion of the barrier (20) is porous.

7. The hand-held steamer head (1) according to any one of the preceding claims, wherein the steam channel is configured to extend at an oblique angle to the steam distribution chamber.

8. The hand-held steamer head (1) according to any one of the preceding claims, wherein the one or more steam vents (12) are defined by a vent side wall (14) protruding in the steam distribution chamber (8).

9. The hand-held steamer head (1) according to claim 1, further comprising a steaming face (3) which is positionable against an object to be steamed, wherein the steam vent outlet (13) of the or each steam vent (12) is an opening in the steaming face.

10. A garment steamer comprising the hand-held steamer head (1) according to any one of the preceding claims.

Patentansprüche

1. Tragbarer Dampferkopf (1) umfassend
eine Dampfverteilungskammer (8),
einen Dampfeinlass (9), durch den Dampf von einem Dampfkanal (10) aufgenommen und der Dampfverteilungskammer zugeführt wird,
eine oder mehrere Dampfentlüftungen (12), durch die Dampf in der Dampfverteilungskammer aus dem Dampferkopf ausgestoßen wird, und
wobei die oder jede Dampfentlüftung (12) einen Dampfentlüftungsauslass (13) aufweist, wobei eine Barriere (20) in der Dampfverteilungskammer (8) konfiguriert ist, einen direkten Strömungsweg vom Dampfeinlass (9) zum Dampfentlüftungsauslass (13) der oder jeder Dampfentlüftung (12) zu verhindern, wobei die Barriere (20) angeordnet ist, einen linearen Strömungsweg vom Dampfeinlass zum Dampfentlüftungsauslass (13) der oder jeder Dampfentlüftung (12) zu schneiden,

wobei die Dampfverteilungskammer (8) zwei oder mehrere Dampfentlüftungen (12) umfasst, die eine Dampfentlüftungszone (17) definieren, wobei sich die Barriere (20) mindestens teilweise über die Dampfverteilungskammer (8) quer zu einem direkten Strömungsweg zwischen dem Dampfeinlass (9) und der oder jeder Dampfentlüftung (12) erstreckt und konfiguriert ist, einen direkten Strömungsweg vom Dampfeinlass (9) zur Dampfentlüftungszone zu verhindern,
dadurch gekennzeichnet, dass die Barriere (20) eine Strömungswegöffnung (24) definiert, durch die Dampf zwischen dem Dampfeinlass (9) und der oder jeder Dampfentlüftung (12) strömt und die von einem direkten Strömungsweg vom Dampfeinlass zu der oder jeder Dampfentlüftung versetzt ist, und wobei die Querschnittsfläche der Strömungswegöffnung (24) größer als die Querschnittsfläche des Dampfeinlasses (9) ist.

2. Tragbarer Dampferkopf (1) nach Anspruch 1, wobei die eine oder die mehreren Dampfentlüftungen (12) auf einer dem Dampfeinlass (9) gegenüberliegenden Seite der Dampfverteilungskammer (8) angeordnet sind.

3. Tragbarer Dampferkopf (1) nach Anspruch 1 oder 2, wobei die Strömungswegöffnung (24) zwischen einer Kante der Barriere (20) und einer Innenfläche (15) der Dampfverteilungskammer (8) gebildet ist.

4. Tragbarer Dampferkopf (1) nach Anspruch 3, wobei die Barriere (20) von der Innenfläche (15) der Dampfverteilungskammer (8) beabstandet ist.

5. Tragbarer Dampferkopf (1) nach einem der vorstehenden Ansprüche, wobei die Barriere (20) undurchlässig ist.

6. Tragbarer Dampferkopf (1) nach einem der Ansprüche 1 bis 4, wobei mindestens ein Abschnitt der Barriere (20) porös ist.

7. Tragbarer Dampferkopf (1) nach einem der vorstehenden Ansprüche, wobei der Dampfkanal konfiguriert ist, sich in einem schrägen Winkel zur Dampfverteilungskammer zu erstrecken.

8. Tragbarer Dampferkopf (1) nach einem der vorstehenden Ansprüche, wobei die eine oder mehreren Dampfentlüftungen (12) durch eine Entlüftungsseitenwand (14) definiert sind, die in die Dampfverteilungskammer (8) hervorsteht.

9. Tragbarer Dampferkopf (1) nach Anspruch 1, weiterhin umfassend eine Dämpfungsfläche (3), die gegen einen zu bedampfenden Gegenstand positionierbar ist, wobei der Dampfentlüftungsauslass (13) der oder jeder Dampfentlüftung (12) eine Öffnung in der Dämpfungsfläche ist.

10. Bekleidungsdampfer umfassend den tragbaren Dampferkopf (1) nach einem der vorstehenden Ansprüche.

Revendications

1. Tête de vaporisateur tenue à la main (1) comprenant une chambre de distribution de vapeur (8),
une entrée de vapeur (9) à travers laquelle de la vapeur est reçue à partir d'une voie à vapeur (10) et fournie à la chambre de distribution de vapeur,
un ou plusieurs évents de vapeur (12) à travers lesquels la vapeur dans la chambre de distribution de vapeur est expulsée à partir de la tête de vaporisateur, et
dans laquelle le ou chaque évent de vapeur (12) comporte une sortie d'évent de vapeur (13), dans laquelle une barrière (20) dans la chambre de distribution de vapeur (8) est configurée pour empêcher un trajet d'écoulement direct de l'entrée de vapeur (9) à la sortie d'évent de vapeur (13) du ou de chaque évent de vapeur (12), la barrière (20) étant agencée pour couper un trajet d'écoulement linéaire de l'entrée de vapeur à la sortie d'évent de vapeur (13) du ou de chaque évent de vapeur (12),
dans laquelle la chambre de distribution de vapeur (8) comprend deux évents de vapeur (12) ou plus définissant une zone d'évents de vapeur (17), dans laquelle la barrière (20) s'étend au moins partiellement sur la chambre de distribution de vapeur (8), s'étend transversalement à un trajet d'écoulement direct entre l'entrée de vapeur (9) et le ou chaque évent de vapeur (12), et est configurée pour empêcher un trajet d'écoulement direct de l'entrée de vapeur (9) vers la zone d'évents de vapeur,
caractérisée en ce que la barrière (20) définit un orifice de trajet d'écoulement (24) à travers lequel la vapeur s'écoule entre l'entrée de vapeur (9) et le ou chaque évent de vapeur (12) et qui est décalé d'un trajet d'écoulement direct de l'entrée de vapeur vers le ou chaque évent de vapeur, et dans laquelle la surface en coupe transversale de l'orifice de trajet d'écoulement (24) est supérieure à la surface en coupe transversale de l'entrée de vapeur (9).

2. Tête de vaporisateur tenue à la main (1) selon la revendication 1, dans laquelle les un ou plusieurs évents de vapeur (12) sont disposés d'un côté opposé de la chambre de distribution de vapeur (8) à l'entrée de vapeur (9).

3. Tête de vaporisateur tenue à la main (1) selon la revendication 1 ou 2, dans laquelle l'orifice de trajet d'écoulement (24) est formé entre un bord de la bar-

rière (20) et une surface interne (15) de la chambre de distribution de vapeur (8).

4. Tête de vaporisateur tenue à la main (1) selon la revendication 3, dans laquelle la barrière (20) est espacée de la surface interne (15) de la chambre de distribution de vapeur (8).

5. Tête de vaporisateur tenue à la main (1) selon l'une quelconque des revendications précédentes, dans laquelle la barrière (20) est imperméable.

6. Tête de vaporisateur tenue à la main (1) selon l'une quelconque des revendications 1 à 4, dans laquelle au moins une partie de la barrière (20) est poreuse.

7. Tête de vaporisateur tenue à la main (1) selon l'une quelconque des revendications précédentes, dans laquelle la voie à vapeur est configurée pour s'étendre selon un angle oblique par rapport à la chambre de distribution de vapeur.

8. Tête de vaporisateur tenue à la main (1) selon l'une quelconque des revendications précédentes, dans laquelle les un ou plusieurs évents de vapeur (12) sont définis par une paroi latérale d'évent (14) faisant saillie dans la chambre de distribution de vapeur (8).

9. Tête de vaporisateur tenue à la main (1) selon la revendication 1, comprenant en outre une face de vaporisation (3) qui est positionnable contre un objet devant être vaporisé, dans laquelle la sortie d'évent de vapeur (13) du ou de chaque évent de vapeur (12) est une ouverture dans la face de vaporisation.

10. Vaporisateur pour vêtements comprenant la tête de vaporisateur tenue à la main (1) selon l'une quelconque des revendications précédentes.

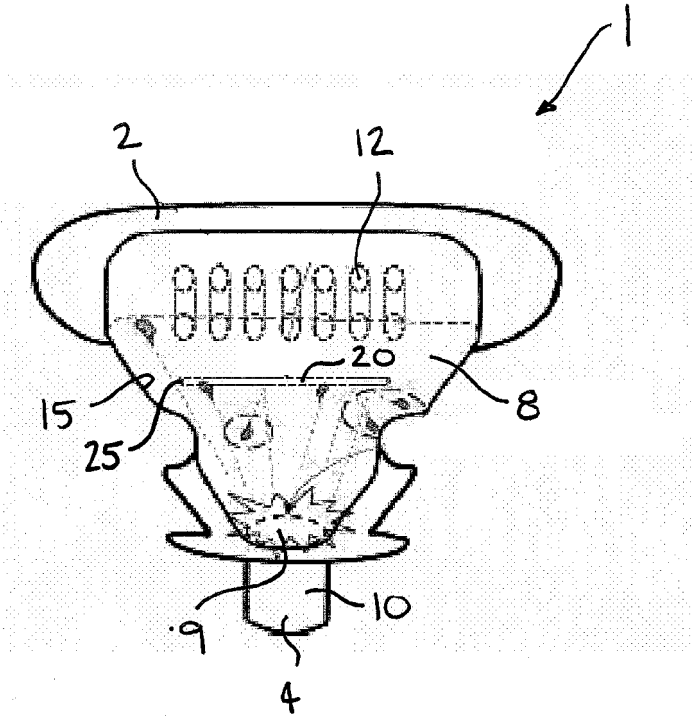

FIG. 1

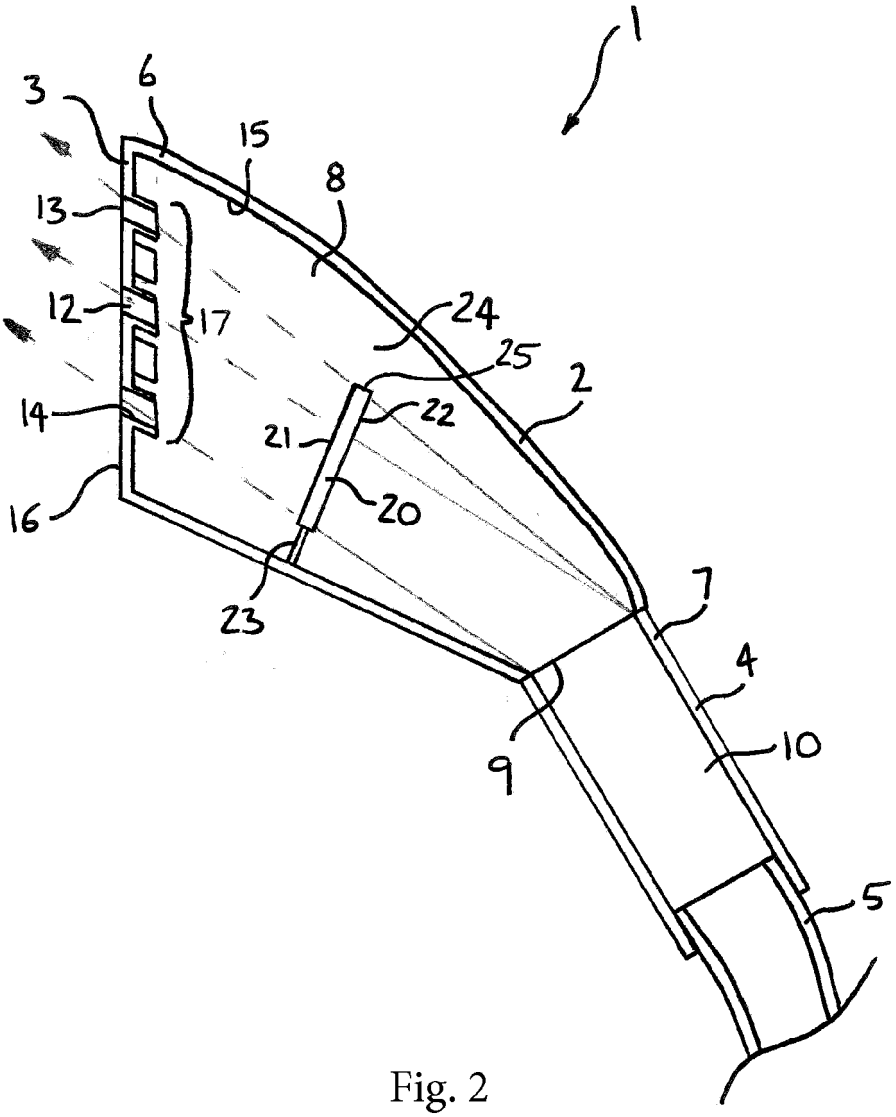

Fig. 2

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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- CN 202337905 U **[0003]**