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(54) **Portable water-pipe**

(57) The present invention provides a portable water-pipe (1) for smoking a substance, such as tobacco or the like, comprising: a housing (2) having a mount (3) for holding the substance to be smoked and a chamber (7) for holding water (W), wherein the chamber (7) is connected in fluid communication with the mount via a first fluid connection (8, 9); and a mouth-piece (10) attached to the housing (2) and connected in fluid communication with the chamber (7) for drawing smoke through the chamber (7) from the substance held by the mount (3). The first fluid connection (8, 9) is configured to inhibit egress of water from the chamber (7) irrespective of an orientation of the housing (2).

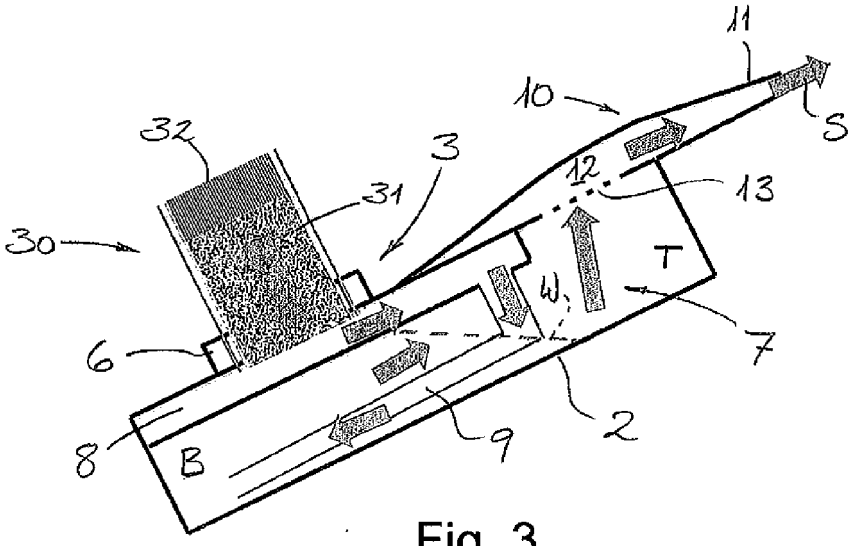

Fig. 3

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Description

[0001] The present invention relates to a portable water-pipe, and particularly a pocket-sized water-pipe, for smoking tobacco and similar substances.

[0002] Recently, the smoking of water-pipe tobacco has gained substantially in popularity. The smoking of this kind of tobacco product is typically practised using a traditional water-pipe, variously known from near- and middle-eastern states, as well as from the Indian subcontinent, as a "hookah", "shisha" or "nargile" pipe.

[0003] The traditional water-pipe has a bowl arranged at the top which holds coal and tobacco during a smoking session. The bowl is loaded with tobacco then covered with a perforated aluminum foil or a glass or metal screen. Lit coals are then placed on top of the foil or screen, which allows the tobacco to heat to the proper temperature. This tobacco bowl of the pipe sits above a water jar, which is sometimes referred to as the vase or base, and a tube communicating with the bowl extends down from the bowl into the water jar to a level below the water in the jar. A hose or tube is connected with the water jar in communication with the air-space above the water and this hose or tube typically has a mouth-piece at its distal end through which a user inhales. When a user inhales through the hose, the pressure in the space above the water in the jar drops and air is pulled through the charcoal and into the bowl holding the tobacco. The hot air, heated by the charcoal, vaporizes (not burns) the tobacco and produces smoke, which is passed down through the tube that extends into the water in the jar. The smoke bubbles up through the water, losing heat, and fills the top part of the jar, to which the hose is attached. Thus, when a smoker inhales from the hose, the change in pressure in the jar pulls more air through the charcoal, continuing the process. As traditional water-pipes are typically very large and ornate devices, however, they are not practical for portable use.

[0004] It is therefore an object of the present invention to provide a new and improved water-pipe that enables consumers to smoke this kind of tobacco product regardless of where they may currently be; e.g. whether they are at home, travelling, shopping or otherwise preoccupied.

[0005] In accordance with the present invention, a water-pipe having the features recited in claim 1 is provided. Advantageous or preferred features of the invention are recited in the dependent claims.

[0006] According to one aspect, therefore, the invention provides a portable water-pipe for smoking a substance, such as tobacco or the like, comprising:

a housing having a mount for holding the substance to be smoked and a chamber for holding water, wherein the chamber is connected in fluid communication with the mount via a first fluid connection; and

a mouth-piece attached to the housing and connected in fluid communication with the chamber for drawing smoke through the chamber from the substance held by the mount;

wherein the first fluid connection is configured to inhibit or prevent egress of water from the chamber regardless of an orientation of the housing.

[0007] The present invention provides a water-pipe that is designed to be manufactured small enough to fit in a pocket of a coat or jacket, or in a personal carry-bag. Importantly, the pipe of the invention is able to be carried while containing water without significant risk of unwanted leakage or spillage of that water. That is, the portable water-pipe will naturally be subject to jostling and movement when carried in a pocket or bag, such that the orientation of the pipe may vary. It is therefore a feature of the invention that the egress of water from the chamber via the first fluid connection is inhibited.

[0008] In a preferred embodiment, the first fluid connection defines a convoluted or tortuous fluid path between the mount and the chamber, especially a bottom region of the chamber. In this regard, the first fluid connection preferably comprises a first channel or first tube which interconnects the mount and the water chamber, and this first channel or tube preferably extends in a convoluted path (e.g. having a plurality of bends) between the mount and a lower or bottom region of the water chamber. Furthermore, in a preferred embodiment, the path of the first fluid connection constricts or narrows from an outlet opening thereof adjacent the bottom region of the chamber towards the mount. By designing this first fluid connection as a convoluted or tortuous path, the inadvertent escape or leakage of water through this connection can be substantially minimised or even eliminated, without unduly hindering the flow of smoke therethrough during use.

[0009] In a preferred embodiment, the water pipe comprises a first valve mechanism to substantially close or seal the first fluid connection against fluid flow. In particular, the first valve mechanism is selectively movable from an open position permitting fluid flow to a closed position inhibiting fluid flow. Thus, the first valve mechanism preferably includes an actuating member that is movable, e.g. slidable or rotatable, to move the valve mechanism between the open position and the closed position. This actuating member is preferably arranged on or adjacent the mount. By incorporating a valve mechanism in the first fluid connection, inadvertent escape or leakage of water from the chamber through this connection can also be substantially minimised or eliminated.

[0010] In a preferred embodiment, the mouth-piece of the water-pipe is connected in fluid communication with the chamber via a second fluid connection, and this second fluid connection is preferably also configured to inhibit egress of water from the chamber irrespective of an orientation of the housing. In this regard, the second fluid connection preferably defines a convoluted or tortuous fluid path between the mouth-piece and a top region of

the chamber. For example, the second fluid connection may comprise a second channel or second tube which interconnects the mouth-piece and the water chamber, and this second channel or tube desirably extends in a convoluted path (e.g. having a plurality of bends) between the mouth-piece and an upper or top region of the chamber. Further, in a particularly preferred embodiment, the path of the second fluid connection constricts or narrows from an inlet opening thereof adjacent the top region of the chamber towards the mouth-piece. Thus, by designing the second fluid connection in a convoluted or tortuous path, undesired escape or leakage of water through the second connection can be substantially minimised or even eliminated, and without unduly hindering or impeding the flow of smoke there-through during use.

[0011] In a preferred embodiment, the water pipe comprises a second valve mechanism to substantially close or seal the second fluid connection against fluid flow. Thus, the second valve mechanism may be selectively movable from an open position permitting fluid flow to a closed position inhibiting fluid flow. To this end, the second valve mechanism may include an actuating member that is movable, e.g. slidable or rotatable, to move the second valve mechanism between the open position and the closed position. This actuating member is preferably part of or adjacent to the mouth-piece. Thus, inadvertent escape or leakage of water from the chamber through the second fluid connection can also be substantially minimised or even eliminated by incorporating a valve mechanism in that connection.

[0012] In a particularly preferred embodiment, the housing of the water-pipe includes one or more partition or baffle member which at least partially separates the chamber from the mouth-piece. Accordingly, each partition or baffle member may help form the convoluted fluid path of the second fluid connection and/or assist to prevent or inhibit water in the chamber from sloshing into the mouth-piece during movement of the water-pipe in use.

[0013] In a particularly preferred embodiment, the housing comprises an elongate upper surface upon which at least one of the mount for holding the substance to be smoked and the mouth-piece are arranged or attached. Advantageously, the mount is designed or configured to hold a product, e.g. a water-pipe tobacco product, to be smoked. The mount may be configured simply for insertion of a cigarette or a cigarillo.

[0014] According to another aspect, the present invention provides a product, and especially a tobacco product, to be smoked with a water-pipe, the product comprising a body or pellet of a substance to be smoked, especially including tobacco, and a heat source element provided at an end region of the body or pellet.

[0015] In a preferred embodiment, the heat source element comprises charcoal, wood or the like, and may be provided as a chip or disc element at an end of the body or pellet. The body or pellet of the substance to be smoked is preferably provided in a prismatic form (e.g. in a cylindrical form) and the heat source element may thus have the form of a circular disc, preferably with a thickness in the range of 1 mm to 5 mm, and more preferably in the range of 2 mm to 3 mm. The diameter of the body or pellet of the product is preferably in the range of 5 mm to 20 mm, and more preferably about 10 mm.

[0016] In a preferred embodiment, either the product itself, or at least the body or pellet of the substance to be smoked, is wrapped in a foil, especially in a metal-based foil such as an aluminium-based foil. The product may also include a wrap or layer of cigarette paper.

[0017] In a particularly preferred embodiment, the body or pellet of the substance to be smoked includes one or more of: tobacco, glycerine (e.g. vegetable glycerine), propylene glycol (PG), cut filler, and a flavour additive. The glycerine and/or the propylene glycol may be present in an amount $\geq$ 25% by mass, and more preferably $\geq$ 50% by mass of the body or pellet.

[0018] For a more complete understanding of the invention and the advantages thereof, exemplary embodiments of the invention are explained in more detail in the following description with reference to the accompanying drawing figures, in which like reference characters designate like parts and in which:

Fig. 1	is a perspective view of a water-pipe according to a first embodiment;
Fig. 2	is a schematic cross-sectional view of the water-pipe shown in Fig. 1;
Fig. 3	is a schematic cross-sectional view of the water-pipe shown in Fig. 1 in use;
Fig. 4a,4b	are perspective views of a first valve mechanism in the water-pipe shown in Fig. 1;
Fig. 5a,5b	are schematic cross-sectional views of the water-pipe shown in Fig. 1 showing the first and second valve mechanisms in open and closed positions;
Fig. 6	is a schematic cross-sectional view of a water-pipe according to a second embodiment;
Fig. 7	is a schematic plan view of the water-pipe shown in Fig. 6;
Fig. 8	is a schematic cross-sectional view of a water-pipe according to a third embodiment;
Fig. 9a-9c	are schematic cross-sectional and plan views of the water-pipe and mouth-piece shown in Fig. 8;
Fig. 10	is a schematic cross-sectional view of a

water-pipe tobacco product according to an embodiment;

Fig. 11 is a schematic perspective view of the water-pipe tobacco product shown in Fig. 10;

Fig. 12 is a schematic cross-sectional view of a water-pipe according to a fourth embodiment;

Fig. 13 is a perspective view of the water-pipe shown in Fig. 12;

Fig. 14 is a schematic cross-sectional view of a water-pipe according to a fifth embodiment;

Fig. 15 is a perspective view of the water-pipe shown in Fig. 14;

Fig. 16 is a schematic cross-sectional view of a water-pipe according to a variation of the embodiment shown in Fig. 14;

Fig. 17 is a schematic cross-sectional view of a water-pipe according to a sixth embodiment; and

Fig. 18 is a perspective view of the water-pipe shown in Fig. 17.

[0019] The accompanying drawings are included to provide a further understanding of the present invention and are incorporated in and constitute a part of this specification. The drawings illustrate particular embodiments of the invention and together with the description serve to explain the principles of the invention. Other embodiments of the invention and many of the attendant advantages of the invention will be readily appreciated as they become better understood with reference to the following detailed description.

[0020] It will be appreciated that common and well understood elements that may be useful or necessary in a commercially feasible embodiment are not necessarily depicted in order to facilitate a less abstracted view of the embodiments. The elements of the drawings are not necessarily illustrated to scale relative to each other. It will further be appreciated that certain actions and/or steps in an embodiment of a method may be described or depicted in a particular order of occurrences while those skilled in the art will understand that such specificity with respect to sequence is not actually required. It will also be understood that the terms and expressions used in the present specification have the ordinary meaning as it accorded to such terms and expressions with respect to their corresponding respective areas of inquiry and study, except where specific meanings have otherwise been set forth herein.

[0021] Referring to Figs. 1 to 5 of the drawings, a water-pipe 1 according to a first embodiment is illustrated in both perspective and cross-sectional views together with a tobacco product 30 designed to be smoked with the water-pipe 1. As is apparent from Fig. 1, the water-pipe 1 may be fabricated from moulded plastic components and comprises elongate housing 2 having a generally slim or narrow profile and an oval or elliptical cross-section, though alternative geometries are also possible without departing from the principles of the invention.

[0022] With particular reference to drawing Figs. 1 to 3, it can be seen that the water-pipe 1 includes a mount or holder 3 on an upper side 4 of the housing 2 for mounting and holding the tobacco product 30 to be smoked. The mount 3 has a recess 5 for receiving and retaining a base of a cylindrical body or pellet 31 of the tobacco product 30. More particularly, the mount 3 comprises a circular collar 6 on the upper side 4 of the housing which extends around and essentially defines or encompasses the recess 5 into which the tobacco product 30 is inserted.

[0023] Referring further to drawing Figs. 2 and 3, the housing 2 encloses a chamber 7 for holding water W in the water-pipe 1 of the invention. This water chamber 7 is designed to be partially, but preferably not entirely filled with water W to ensure optimum performance of the pipe 1. The mount 3 for the substance 30 to be smoked can be seen in Figs. 2 and 3 of the drawings connected in fluid communication with the chamber 7 via a first fluid connection, i.e. comprising a channel 8 and a tube 9, which follows a rather convoluted path to a bottom region B of the water chamber 7. This is especially apparent from Fig. 3, which shows a typical orientation of the water-pipe 1 during use.

[0024] As is also clearly visible in Figs. 1 to 3, the water-pipe 1 further comprises a mouth-piece 10 attached to and extending from the housing 2. The mouthpiece 10 has a distal tip 11 for insertion into the mouth of a user and encloses a space or cavity 12 which is connected in fluid communication with a top region T of the chamber 7 via a second fluid connection through a mesh or perforations 13 in the housing wall. The arrows in Fig. 3 illustrate a path taken by smoke S from the tobacco product 30 at the mount 3 through the channel 8 and tube 9, through the water W in the chamber 7, and through the mesh or perforations 13 into the mouthpiece 10 for inhalation by the user of the pipe 1.

[0025] With reference now to Figs. 4a, 4b and Figs. 5a, 5b of the drawings, first and second valve mechanisms 14, 15 and their operation in the water-pipe 1 of this first embodiment are specifically illustrated. In this regard, Figs. 4a and 4b show details of the collar 6 of the mount 3 for receiving and holding the tobacco product 30 to be smoked. As specifically illustrated, the collar 6 is rotatable about a central axis A to move a first valve mechanism 14 between an open position (in Figs. 4a and 5a) in which the first fluid connection 8, 9 between the mount 3 and the water chamber 7 is open to fluid flow, and a closed position (in Figs. 4b and 5b) in which the

first fluid connection 8, 9 is closed or sealed to fluid flow at the mount 3. A similar, second valve mechanism 15 can be seen (schematically) provided between the mouth-piece 10 and the chamber 7. In particular, by rotating the mouth-piece 10 around the axis C, the second valve mechanism 15 can be moved between an open position (in Fig. 5a) in which the second fluid connection between the mouthpiece 10 and the chamber 7 is open to fluid flow, and a closed position (in Fig. 5b) in which the second fluid connection is closed to fluid flow at the mesh or perforations 13.

[0026] Figs. 6 and 7 of the drawings illustrate a second embodiment of a water-pipe 1 which differs from the first embodiment in that the first channel 8 and first tube 9 defining the first fluid connection between the mount 3 and the bottom region B of the water chamber 7 is provided in this case purely in the form of a first tube 9, as distinct from a combination of the channel 8 and the tube 9 schematically illustrated in drawing Figs. 1 to 5. Further, in this second embodiment the water-pipe 1 incorporates a second channel or tube 16 which extends in a convoluted configuration between the mouth-piece 10 and the top region T of the chamber. As is particularly apparent from Fig. 7 of the drawings, the second tube 16 extends from the mouth-piece 10 over substantially an entire length of the housing 2 and doubles back on itself via a large bend 17 to form two substantially parallel lengths of the second tube 16 at essentially the same elevation in the region marked "X" in Fig. 6. For illustrative purposes only, the tube 16 has been shown at differing elevations in region "X" in Fig. 6. Thus, compared to the first embodiment in which the mouth-piece 10 (i.e. with the second valve mechanism 15 open) communicated more or less directly with the top region T of the water chamber 7, the second embodiment now substantially minimizes the prospect of water escaping or leaking through the mouth-piece, even when the second valve mechanism 15 is in the open position.

[0027] Fig. 8 of the drawings illustrates a third embodiment of a water-pipe 1 of the invention which offers further protection from inadvertent water leakage through the mouth-piece 10 due to sloshing of the water in the chamber 7 when the pipe 1 is carried in a pocket or bag. Specifically, a partition or baffle member 18 is incorporated in the housing 2 to at least partially separate or isolate the mouth-piece 10 from the chamber 7 and to complicate or convolute the fluid connection between the mouth-piece 10 and the chamber 7 further. Thus, the partition or baffle member 18 is integrally formed with an end wall 19 of the housing 2 proximate the mouth-piece 10 at the top region T of the chamber 7, thereby making the prospect of water W sloshing into an inlet opening 21 at a free end of the second channel or tube 16 less likely.

[0028] In this regard, it will be noted that in both the second and third embodiments (i.e. in Figs. 6 and 9) a diameter of the first tube 8 reduces or narrows between an outlet opening 20 in the bottom region B of the water chamber 7 and the mount 3 for the product 30 to be smoked. Similarly, a diameter of the second tube 16 reduces or narrows between an inlet opening 21 for the smoke in the top region T of the water chamber 7 and the mouth-piece 10.

[0029] Figs. 9a to 9c of the drawings show an optional, additional aspect for all the embodiments of water-pipe 1 described so far. Specifically, referring to the water-pipe 1 in Fig. 8, Figs. 9a to 9c illustrate a third valve mechanism 22 in the form of a non-return valve that may be provided in the second fluid connection in the vicinity of mouth-piece 10 (Fig. 9a). This non-return valve 22 incorporates a valve body 23 in the form of a plug configured to sealingly fit within the second fluid path under the bias of a light spring member 24 (e.g. a leaf spring) as shown in Fig. 9b. As the leaf spring 24 only provides a very light bias force, however, an inhalation by a user through mouth-piece 10 is sufficient to move the plug or valve body 23 against the spring bias into an open position as shown in Fig. 9c to allow the smoke S, represented by the arrows, to pass there-through and be inhaled by the user.

[0030] Referring now to Figs. 10 and 11 of the drawings, an example of a tobacco product 30 of the invention is illustrated in isolation. As noted above, the tobacco product 30 comprises a generally cylindrical body or pellet 31 of a substance to be smoked. That substance will usually include tobacco, though other substances are also possible, e.g. tobacco substitutes for smokers wishing to reduce tobacco consumption. That is, other than tobacco, the body or pellet 31 of the substance to be smoked may include: glycerine (VG), propylene glycol (PG), cut filler and/or a flavour additive. The product 30 further includes a heat source element 32 provided at an end region of the body or pellet 31. The heat source element 32 may, for example, comprises a chip or disc of charcoal, wood or the like, which is ignited and smoulders during use of the product 30 in a water-pipe 1 to vaporize the tobacco and/or other substance in the body or pellet 31 to be smoked. This heat source element 32 desirably has a thickness in the range of about 2 mm to 3 mm and a diameter of about 10 mm. The product 30, or at least the body or pellet 31, is wrapped in a layer of protective foil 33 (e.g. aluminium foil) and may also include an outer wrapping layer of cigarette paper 34.

[0031] It should be noted that, in another embodiment of the tobacco product of the invention not represented in the figures, the tobacco product may comprise a body or pellet of substance to be smoked only, without any heat source element associated to it. In such an embodiment, a heat source may preferably be integrated in the housing 2 of the water-pipe 1 of the invention, for example, in, on or adjacent to the mount 3 for holding the tobacco product. In this way, the water-pipe 1 of the invention may include a heating element for heating the substance to be smoked. In such a case, the heat source may comprise an electric or gas operated heater device, possibly associated with a bowl to hold the tobacco product in order to heat said product substantially uniformly

and preferably almost instantly when the heater is actuated by a user.

[0032] With reference now to drawing Figs. 12 to 18, various other embodiments of a water-pipe 1 according to the invention are illustrated. The basic configuration remains essentially the same as described above in relation to the other embodiments, and like reference numerals again identify like parts of the water-pipes 1. A difference that may be immediately apparent, however, is that a position and orientation of the mount 3 in the housing 2 for holding a substance to be smoked has been adapted to render these water-pipes 1 more suitable for use with rather longer tobacco products, such as cigarettes and cigarillos Z. In this regard, the recess 5 in the mount 3 is configured to receive and hold the filter F of a cigarette or cigarillo Z, such that the cigarette or cigarillo extends away from the user's mouth in basically the same orientation as if the user were smoking it without the water-pipe 1. The embodiments in Figs. 12 to 18 incorporate the same principles and features as described with respect to the embodiments of Figs. 1 to 9, albeit with modifications to the geometry and appearance of the pipe 1. As noted at the outset, however, a person skilled in the art understands that alternative geometries are possible without departing from the principles described.

[0033] Thus, although specific embodiments of the invention have been illustrated and described herein, it will be appreciated by those of ordinary skill in the art that a variety of alternate and/or equivalent implementations exist. It should be appreciated that the exemplary embodiment or exemplary embodiments are only examples, and are not intended to limit the scope, applicability, or configuration in any way. Rather, the foregoing summary and detailed description will provide those skilled in the art with a convenient road map for implementing at least one exemplary embodiment, it being understood that various changes may be made in the function and arrangement of elements described in an exemplary embodiment without departing from the scope as set forth in the appended claims and their legal equivalents. Generally, this application is intended to cover any adaptations or variations of the specific embodiments discussed herein.

[0034] In this document, the terms "comprise", "comprising", "include", "including", "contain", "containing", "have", "having", and any variations thereof, are intended to be understood in an inclusive (i.e. non-exclusive) sense, such that the process, method, device, apparatus or system described herein is not limited to those features or parts or elements or steps recited but may include other elements, features, parts or steps not expressly listed or inherent to such process, method, article, or apparatus. Furthermore, the terms "a" and "an" used herein are intended to be understood as meaning one or more unless explicitly stated otherwise. Moreover, the terms "first", "second", "third", etc. are used merely as labels, and are not intended to impose numerical requirements on or to establish a certain ranking of importance of their objects.

List of Reference Signs

[0035]

1	water-pipe
2	housing
3	mount
4	upper side of housing
5	recess
6	collar
7	chamber
8	first channel
9	first tube
10	mouth-piece
11	distal tip of mouth-piece
12	space or cavity in mouth-piece
13	mesh or perforations
14	first valve mechanism
15	second valve mechanism
16	second channel or tube
17	bend in second channel or tube
18	partition or baffle member
19	end wall of housing
20	outlet opening of first tube
21	inlet opening of second tube
22	non-return valve
23	valve body or plug
24	spring member or leaf spring
30	tobacco product
31	body or pellet
32	heat source element
33	foil layer
34	cigarette paper layer
W	water
S	smoke
B	bottom region of chamber
T	top region of chamber
A	pivot axis of first valve mechanism
C	pivot axis of second valve mechanism
Z	cigarette or cigarillo
F	filter

Claims

1. A portable water-pipe (1) for smoking a substance, such as tobacco or the like, comprising:

a housing (2) having a mount (3) for holding the substance to be smoked and a chamber (7) for holding water (W), wherein the chamber (7) is connected in fluid communication with the mount (3) via a first fluid connection (8, 9); and a mouth-piece (10) attached to the housing (2) and connected in fluid communication with the chamber (7) for drawing smoke (S) through the chamber (7) from the substance held by the mount (3);

wherein the first fluid connection (8, 9) is configured to inhibit egress of water from the chamber (7) irrespective of an orientation of the housing (2).

2. A water-pipe (1) according to claim 1, wherein the first fluid connection (8, 9) defines a convoluted or tortuous fluid path between the mount (3) and a lower or bottom region (B) of the chamber (7).

3. A water-pipe (1) according to claim 2, wherein the fluid path of the first fluid connection (8, 9) constricts or narrows between a smoke outlet opening (20) thereof, located adjacent the bottom region (B) of the chamber, and the mount (3).

4. A water-pipe (1) according to any one of claims 1 to 3, comprising a first valve mechanism (14) to substantially close or seal said first fluid connection (8, 9) against fluid flow.

5. A water-pipe (1) according to claim 4, wherein the first valve mechanism (14) is selectively movable from an open position which permits fluid flow to a closed position which inhibits fluid flow.

6. A water-pipe according to claim 5, wherein the first valve mechanism (14) includes an actuating member which is movable, preferably slidable or rotatable, to move the valve mechanism (14) between the open position and the closed position, the actuating member preferably being arranged on or adjacent to the mount (3).

7. A water-pipe (1) according to any one of claims 1 to 6, wherein the mouth-piece (10) is connected in fluid communication with the chamber (7) via a second fluid connection (16), and wherein the second fluid connection (16) is configured to inhibit egress of water (W) from the chamber (7) irrespective of an orientation of the housing (2).

8. A water-pipe (1) according to claim 7, wherein the second fluid connection (16) defines a convoluted or tortuous fluid path between the mouth-piece (10) and an upper or top region (T) of the chamber (7).

9. A water-pipe (1) according to claim 8, wherein the fluid path of the second fluid connection (16) constricts or narrows between a smoke inlet opening (21) thereof adjacent the top region (T) of the chamber (7) and the mouth-piece (10).

10. A water-pipe (1) according to any one of claims 7 to 9, including a second valve mechanism (15) to substantially close or seal the second fluid connection (16) against fluid flow.

11. A water-pipe (1) according to claim 10, wherein the second valve mechanism (15) is selectively movable from an open position which permits fluid flow to a closed position which inhibits fluid flow.

12. A water-pipe (1) according to claim 11, wherein the second valve mechanism (15) includes an actuating member which is movable, preferably slidable or rotatable, to move the second valve mechanism (15) between the open position and the closed position, the actuating member preferably being part of or adjacent to the mouth-piece (10).

13. A water-pipe (1) according to any one of claims 7 to 12, comprising one or more partition or baffle member (18) which at least partially separates the chamber (7) from the mouth-piece.

14. A water-pipe (1) according to any one of claims 1 to 13, wherein the housing (2) has an elongate upper surface (4) upon which at least one of the mount (3) for holding the substance to be smoked and the mouth-piece (10) are arranged or attached.

15. A water-pipe (1) according to any one of claims 1 to 14, wherein the mount (3) is configured for insertion of a cigarette.

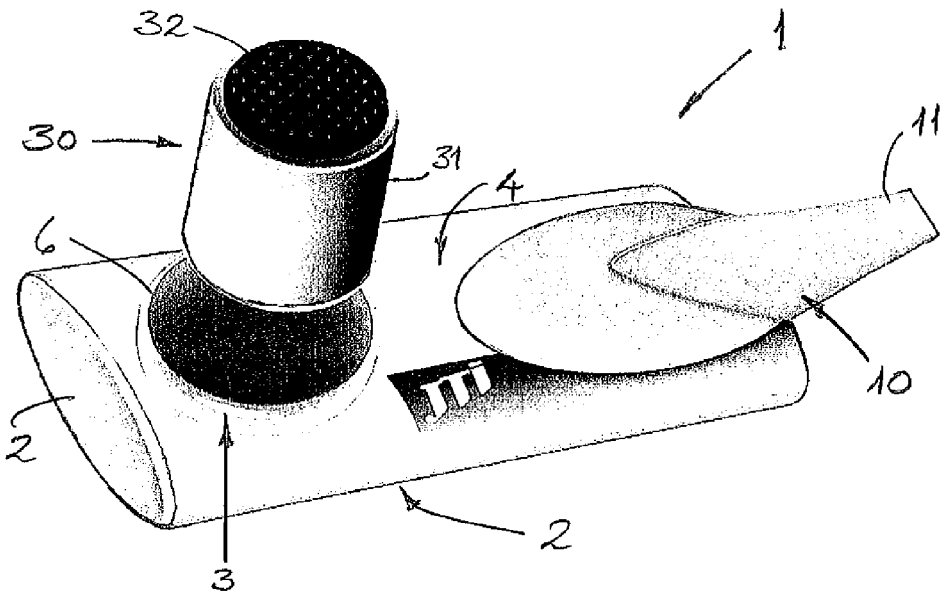


Fig. 1

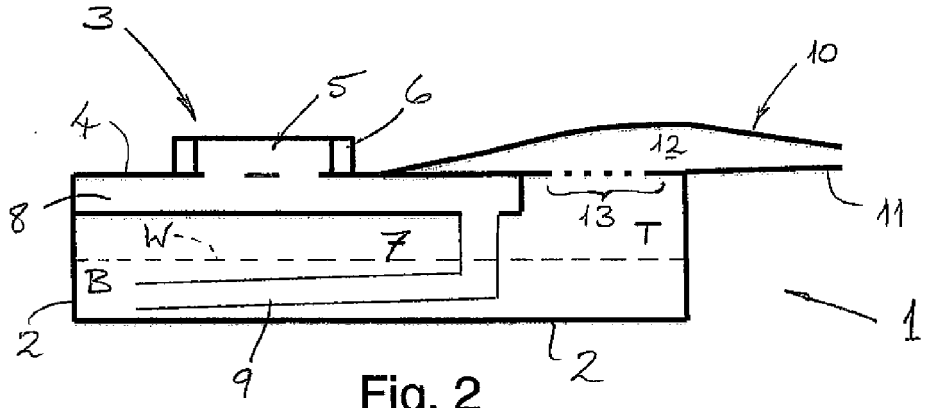


Fig. 2

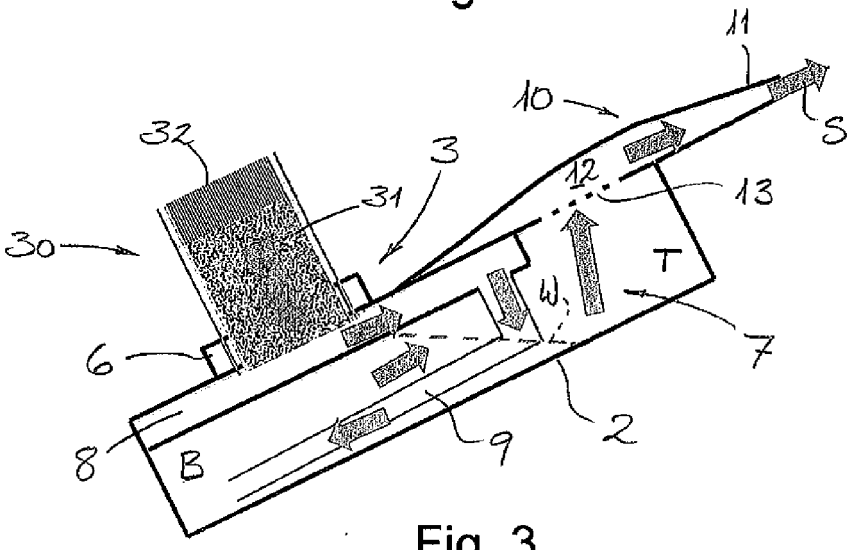
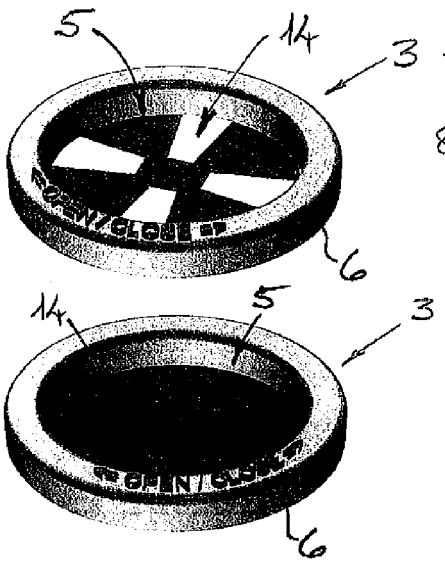
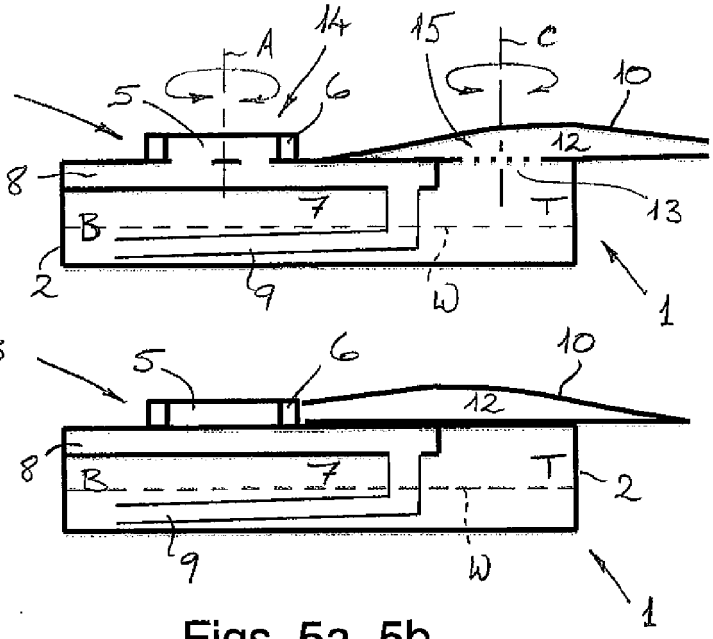


Fig. 3



Figs. 4a, 4b



Figs. 5a, 5b

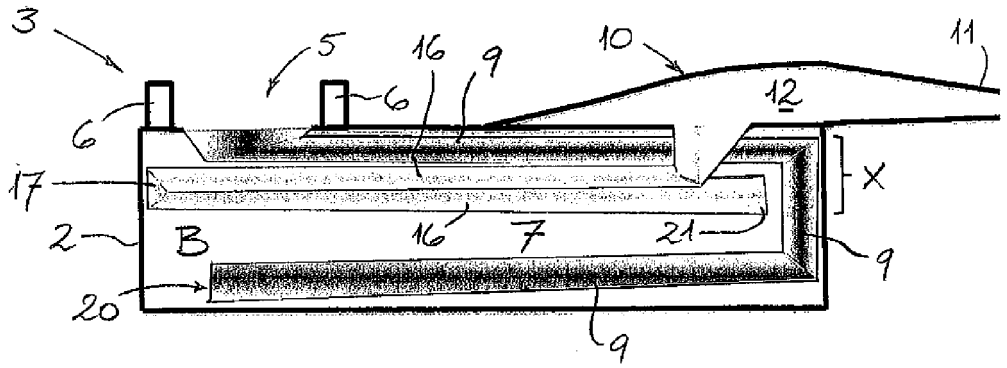


Fig. 6

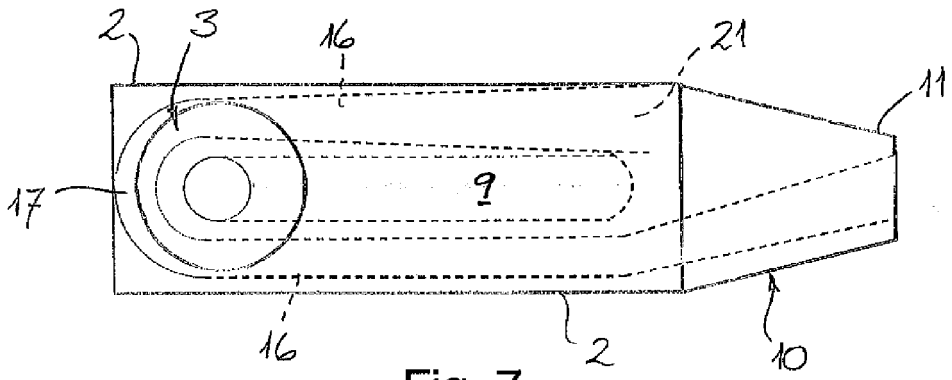


Fig. 7

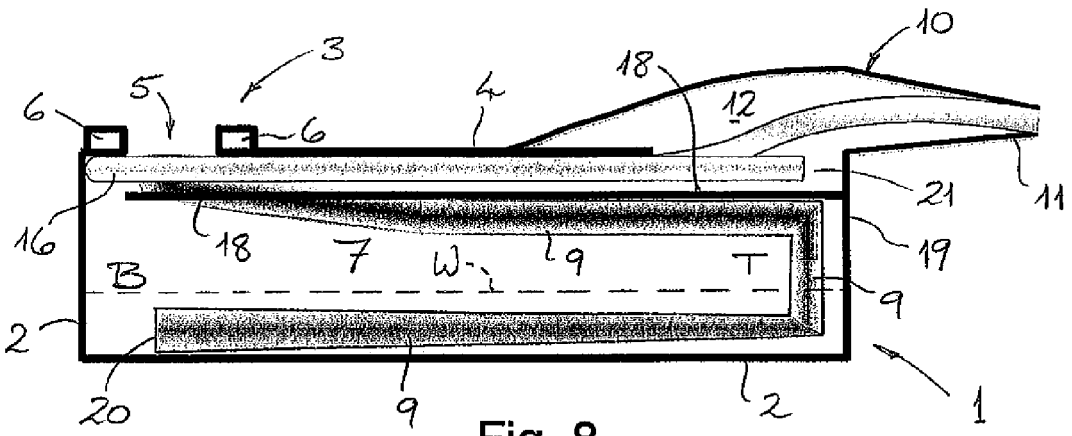


Fig. 8

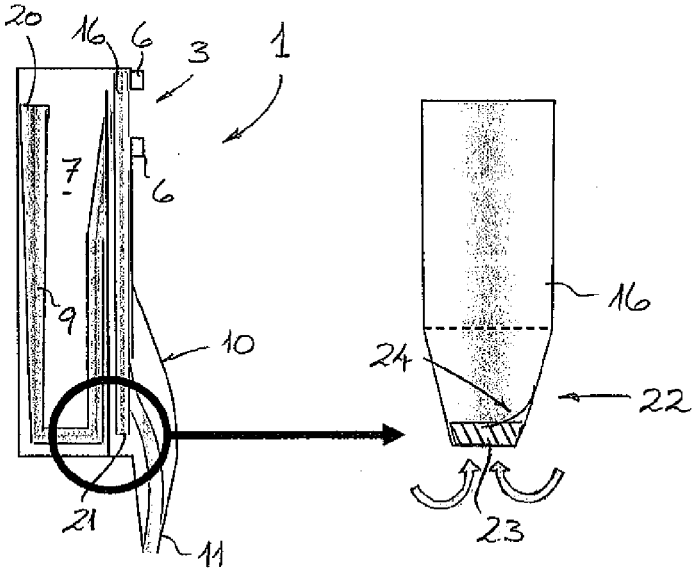


Fig. 9a Fig. 9b

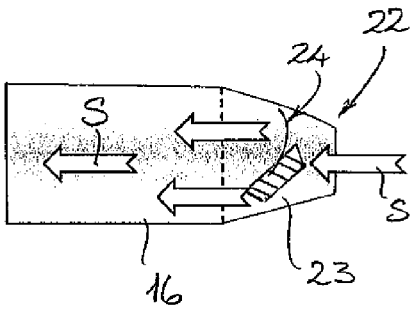


Fig. 9c

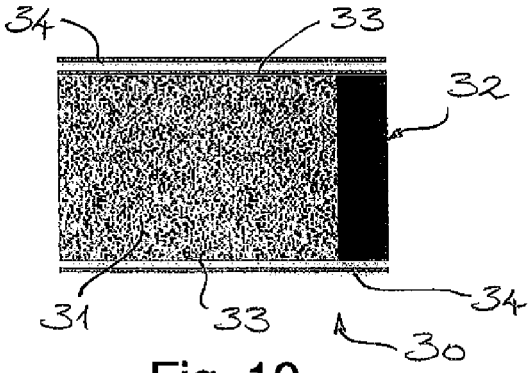


Fig. 10

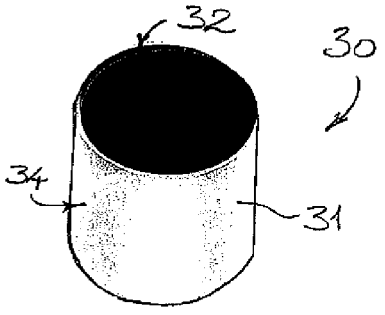


Fig. 11

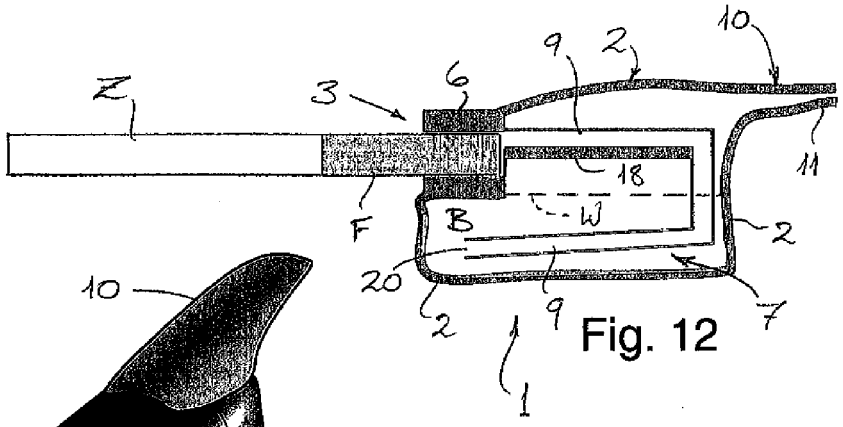


Fig. 12

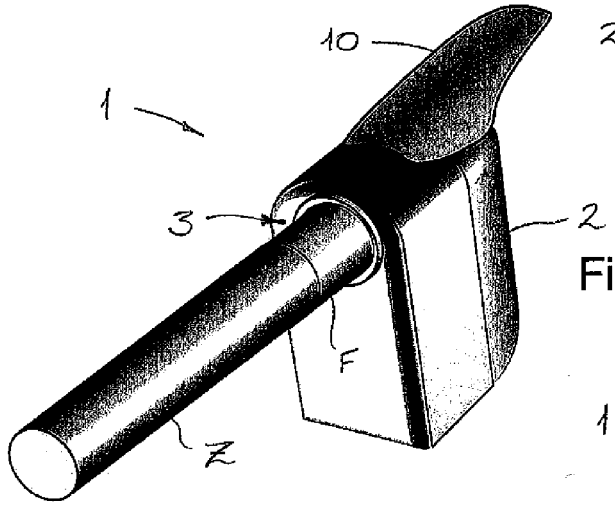


Fig. 13

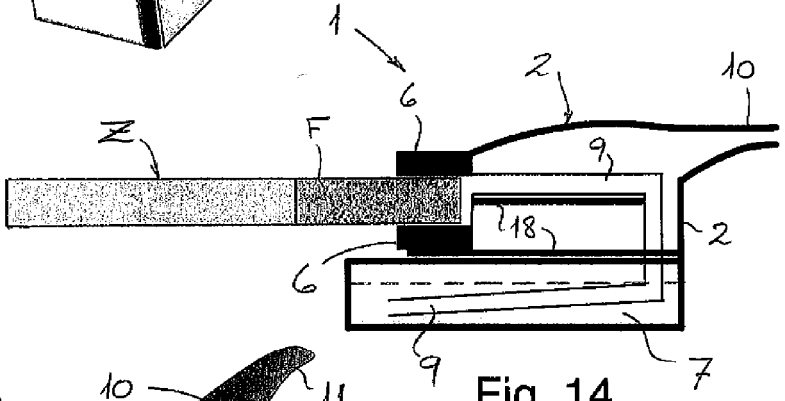


Fig. 14

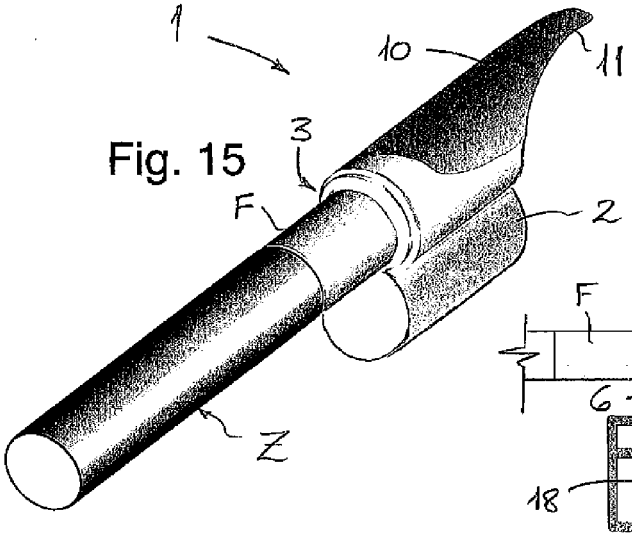


Fig. 15

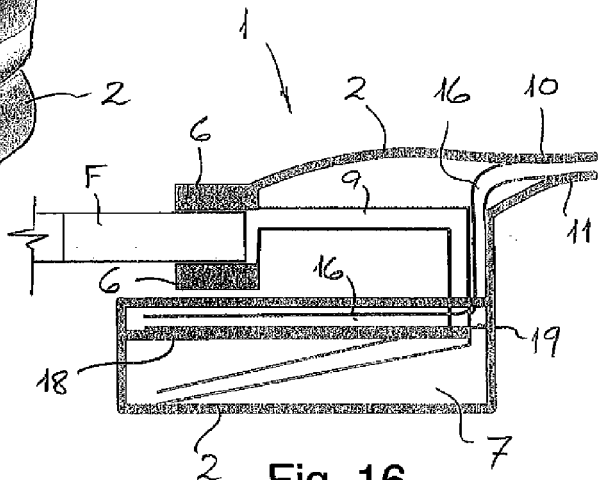


Fig. 16

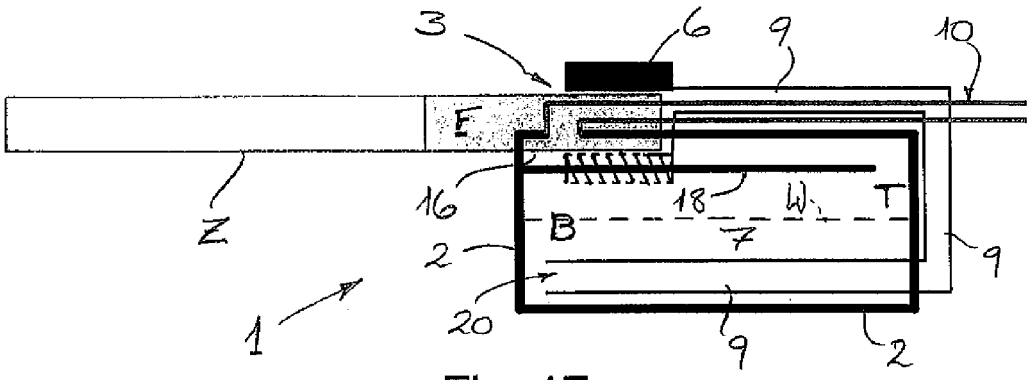


Fig. 17

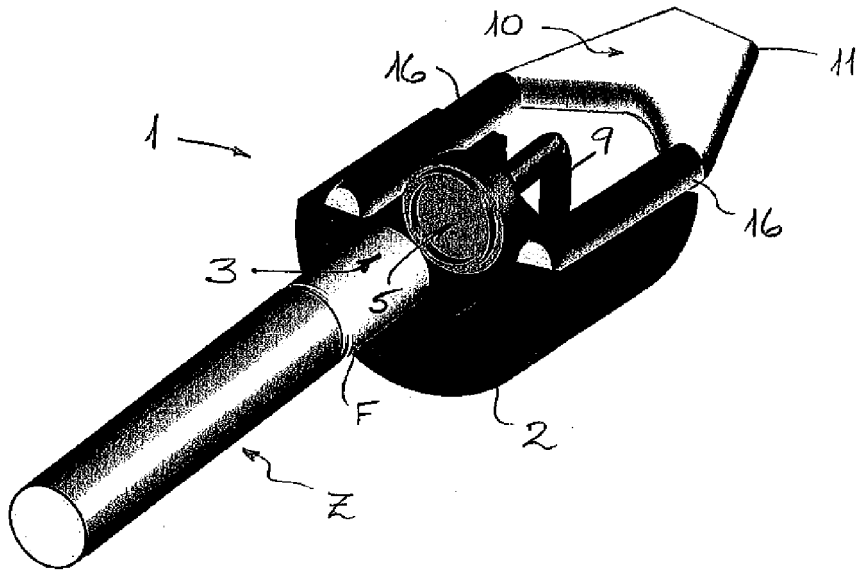


Fig. 18

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EUROPEAN SEARCH REPORT

Application Number
EP 12 17 7500

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X Y	US 2 815 030 A (LESLIE WENGER HERMANN) 3 December 1957 (1957-12-03) * the whole document *	1,2,7,8, 15 4-6, 10-12	INV. A24F1/30
X	US 2 690 753 A (JACKSON DONALD C) 5 October 1954 (1954-10-05) * column 1, line 39 - column 2, line 55; figures *	1,2,7,8	
X	DE 101 28 432 A1 (RICHAU PARVIN [DE]) 2 January 2003 (2003-01-02) * abstract; figure 2 *	1,2,7,8	
X	US 3 057 362 A (FLINT HENRY F) 9 October 1962 (1962-10-09) * column 1, line 54 - column 2, line 60; figure 1 *	1,2,8, 10,15	
X	US 4 134 410 A (KAHLER RICHARD W) 16 January 1979 (1979-01-16) * abstract; figures *	1,4	TECHNICAL FIELDS SEARCHED (IPC) A24F
Y	US 2 672 872 A (JOCK FRANCKEN) 23 March 1954 (1954-03-23) * column 3, lines 18-42; figures *	4-6, 10-12	

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	7 January 2013	Kock, Søren

CATEGORY OF CITED DOCUMENTS

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07-01-2013

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2815030 A	03-12-1957	NONE	
US 2690753 A	05-10-1954	NONE	
DE 10128432 A1	02-01-2003	NONE	
US 3057362 A	09-10-1962	NONE	
US 4134410 A	16-01-1979	NONE	
US 2672872 A	23-03-1954	NONE	

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82