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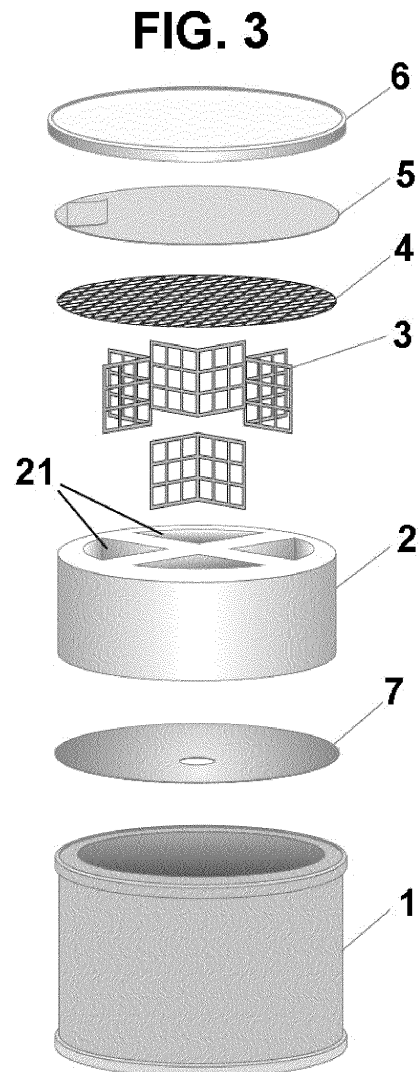
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(54) **COMBUSTION DEVICE FOR TORCHES**

(57) The combustion device for torches comprises a container (1) housing a fuel therein, and is characterized in that it comprises a sponge (2) and at least one inner mesh (3), the sponge (2) and at least one inner screen (3) being placed in said container (1).

It allows to avoid or to minimize the risk that the torch accidentally extinguishes, as the sponge ensures that the liquid fuel is retained inside the container, and the inner mesh ensures that the flame is not accidentally extinguished, providing features of wind, water and height resistance of the generated flame.



Description

[0001] The present invention refers to a combustion device for torches, which avoids or minimizes the risk of extinguishment of the torch.

Background of the invention

[0002] It is necessary to use a combustion device so that the flame of a torch lasts the required time. An example of a torch of this type is that used as Olympic torch.

[0003] This type of currently known devices comprises a container inside which fuel is placed, which is feeding the torch flame the required time. For example, it is common to use gas bottles or flammable liquid under pressure, provided with a valve and a burner.

[0004] These types of known combustion devices has the disadvantage that they are complex devices, and consequently, with an expensive cost, and also can fail causing a possible extinguish, explosion or full lighting of the torch, with the danger that it represents for the people.

[0005] Therefore, the objective of the combustion device for torches according to the present invention is to provide a low cost combustion device, compared to conventional combustion devices and, at the same time, to avoid or minimize the risks that the torch extinguishes accidentally.

Description of the invention

[0006] With the combustion device for torches the invention the aforesaid disadvantages are solved, presenting other advantages that will be described below.

[0007] The combustion device for torches according to the present invention comprises a container which houses a liquid fuel therein, and is characterized in that it comprises a sponge and at least one inner mesh placed in the container.

[0008] Thus, the risk that the torch is extinguished accidentally is avoided or minimized, because the sponge ensures that the liquid fuel is retained within the container, and inner meshes ensure that the flame is not accidentally extinguished, providing characteristics of wind, water and height resistance of the flame it generates.

[0009] Moreover, the cost of the combustion device according to the present invention is reduced compared to conventional combustion devices.

[0010] Preferably, said sponge is of aluminum silicate and it comprises a plurality of housings for a plurality of inner meshes, which are advantageously metallic and have an L or zigzag shape.

[0011] Moreover, advantageously, the combustion device for torches according to the invention also comprises an upper mesh, preferably metallic. This upper mesh has the role of ensuring that the sponge is positioned inside the container without leaving its position.

[0012] To keep the combustion device for torches ac-

cording to the present invention in an optimal state before its first use, said container comprises a lid which is removed before said first use.

5 [0013] Furthermore, according to one embodiment, it can comprise a cover detachably mounted therein, and a funnel-shaped lower layer placed below said sponge.

10 [0014] According to one embodiment, in said container a heater can be placed, for example, made of quicklime and said container can house water, for example rainwater, so that upon reaction they generate heat, increasing the evaporation of liquid fuel and this helps the burning of the flame.

Brief description of the drawings

15 [0015] For better understanding of what has been exposed, some drawings in which, schematically and only as a non-limiting example, several embodiments are shown.

Figure 1 is a perspective exploded view of the components of the combustion device for torches according to the present invention;

25 Figure 2 is an elevation view of the sectioned combustion device for torches according to the present invention;

30 Figure 3 is an exploded perspective view of the components of combustion device for torches according to a second embodiment of the present invention;

35 Figure 4 is an elevation view of the sectioned combustion device for torches according to the second embodiment of the present invention; and

40 Figure 5 is an exploded perspective view of the components of the combustion device for torches according to a third embodiment of the present invention.

Description of preferred embodiments

45 [0016] The combustion device according to the present invention comprises a container 1 inside which a liquid fuel, a sponge 2 and one or more internal meshes 3 is housed.

[0017] Said container 1 is preferably made from metal and cylindrical in shape, but may be of any suitable material and shape, and is provided with a lid 5, also preferably made from metal, which is removed before a first use of the combustion device.

50 [0018] Meanwhile, the sponge 2 is impregnated with said liquid fuel, comprising for example suitable alcohols, such as ethanol, ethyl alcohol, isopropyl alcohol, etc., or any suitable fuel, as will be apparent to those skilled in the art.

[0019] Said sponge 2 is preferably of aluminum silicate and its main function is to ensure that the liquid fuel re-

mains inside the container 1. Moreover, said sponge 2 is chemically inert and resistant to most acids.

[0020] The sponge 2 comprises a plurality of housings 21 for placing the inner meshes 3, which are preferably made from metal and have an L or zigzag shape. The function of said inner meshes 3 is to ensure that the torch flame is not accidentally extinguished.

[0021] The combustion device according to the present invention also comprises an upper metal mesh 4 also, whose function is to ensure that the sponge is held in position.

[0022] In Figures 3 and 4 a second embodiment of the combustion device according to the present invention is shown. For simplicity reasons, the common elements are identified with the same reference numerals.

[0023] Regarding the embodiment of Figures 1 and 2, this second embodiment includes the following two differences.

[0024] The first difference is that on the lid 5 a detachably mounted cover 6 is placed on the container 1, so that the container 1 can be closed after the removal of the lid 5.

[0025] The second difference is that below up sponge 2 a funnel-shaped lower layer 7 provided with a hole is placed defining a lower space inside the container 1, as shown in Figure 4.

[0026] This funnel-shaped lower layer 7 prevents the discharge of liquid inside the container 1 accidentally.

[0027] In Figure 5 a third embodiment of the combustion device according to the present invention is shown. For simplicity reasons, the common elements are identified with the same reference numerals.

[0028] Regarding the embodiment of Figures 3 and 4, this third embodiment includes the difference that it comprises a heater 8, which is housed inside the container 1. This heater 8 is, for example, made from quicklime and said container holds water, for example rainwater, so that upon reaction generate heat, increasing the evaporation of liquid fuel and this helps the burning of the flame.

[0029] The combustion device according to the present invention is simple to manufacture at low cost, compared to conventional combustion devices because it is just necessary to seal the container internally incorporating the above described components, which are low cost compared to conventional valves and burners.

[0030] Furthermore, thanks to the simplicity of the combustion device according to the present invention possible mechanical errors are avoided, such as gas leaks that may occur with conventional combustion devices.

[0031] For its use, it is just needed to remove the lid and provide a flame so that the fuel inside the container begins to burn, the sponge avoiding the escape of said fuel and the inner mesh avoiding the accidental extinguishment of the flame.

[0032] It is noted that although in the present description has been referred to a combustion device for torches, this combustion device can also be used in any applica-

tion in which a flame is required, such as for example a fireplace.

[0033] Although reference has been made to a specific embodiment of the invention, it is apparent to a person skilled in the art that the disclosed combustion device for torches is susceptible of numerous variations and modifications, and that all the details mentioned can be replaced by other technically equivalent ones, without departing from the scope of protection defined by the appended claims.

Claims

1. Combustion device for torches, comprising a container (1) housing a fuel therein, comprising a sponge (2) and at least one inner mesh (3), the sponge (2) and at least one inner mesh (3) being placed in said container (1).
2. Combustion device for torches according to claim 1, wherein said sponge (2) is made from aluminum silicate.
3. Combustion device for torches according to claim 1 or 2, wherein said sponge (2) comprises a plurality of housings (21) for a plurality of inner meshes (3).
4. Combustion device for torches according to claim 1, wherein said at least one inner mesh (3) is metallic.
5. Combustion device for torches according to claim 1, wherein said at least one inner mesh (3) is L or zigzag shaped.
6. Combustion device for torches according to claim 1, further comprising an upper mesh (4).
7. Combustion device for torches according to claim 6, wherein said upper mesh (4) is metallic.
8. Combustion device for torches according to claim 1, wherein said container (1) comprises a lid (5) which is removed before a first use.
9. Combustion device for torches according to claim 1, wherein said container (1) comprises a cover (6) detachably mounted therein.
10. Combustion device for torches according to claim 1, comprising a lower layer (7) placed below said sponge (2).
11. Combustion device for torches according to claim 1, comprising a heater (8) housed in said container (1).
12. Combustion device for torches according to claim 11, wherein said heater (8) is made for quicklime and

said container (1) houses water.

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FIG. 1

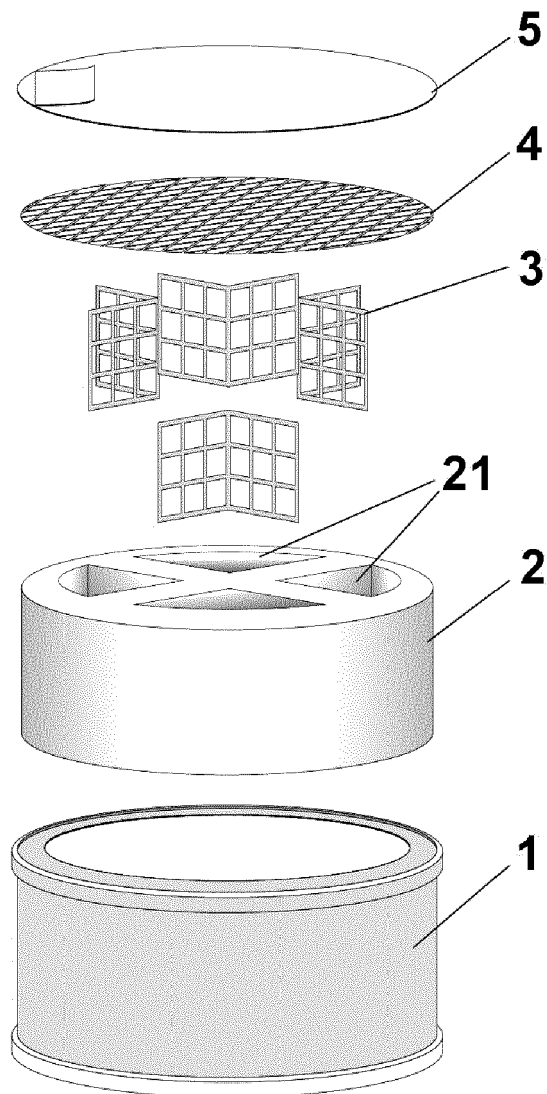


FIG. 2

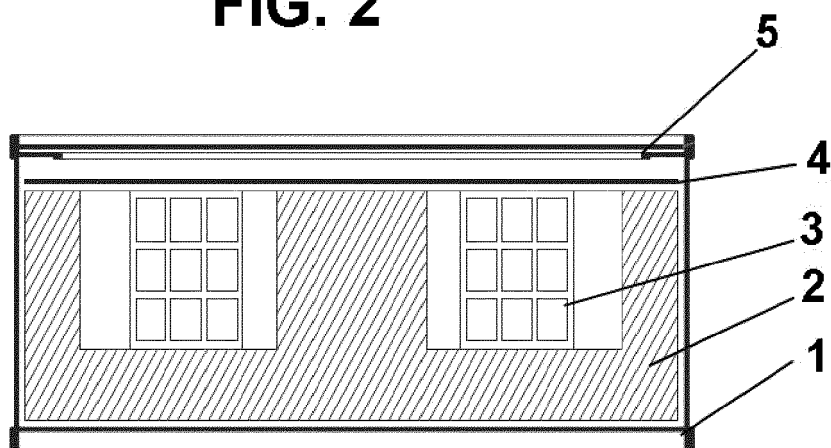


FIG. 3

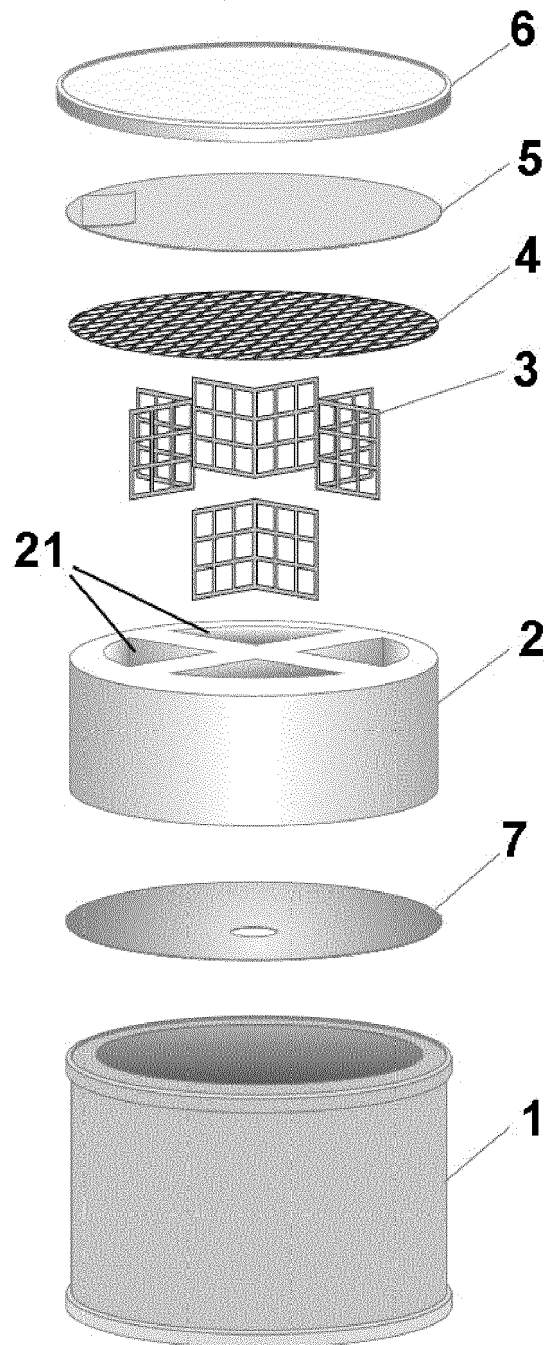


FIG. 4

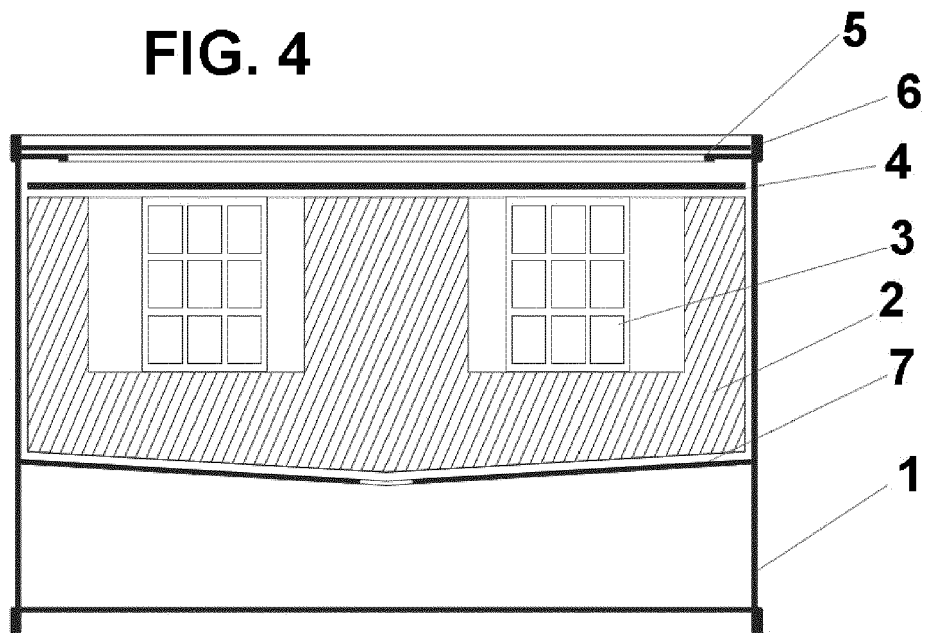
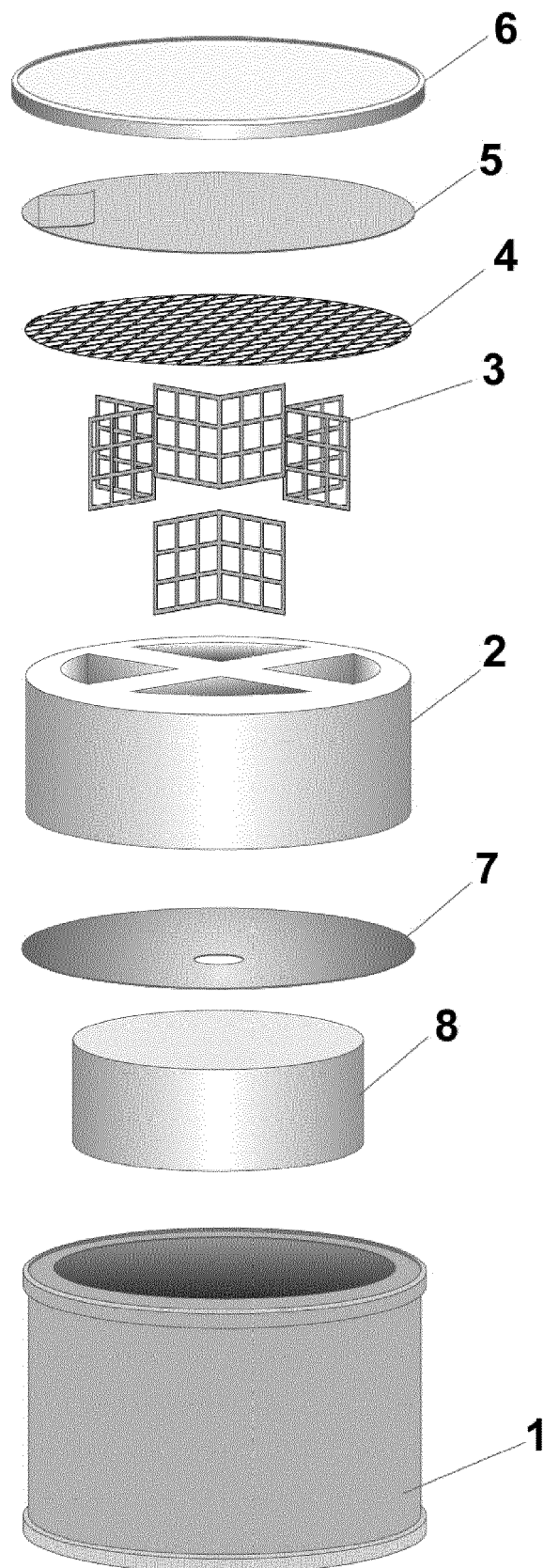


FIG. 5





EUROPEAN SEARCH REPORT

Application Number
EP 16 38 2406

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A	* page 3, line 7 - line 30; figures 1-4 *	3	
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 19 January 2017	Examiner Harder, Sebastian
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 16 38 2406

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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