



(11) **EP 3 073 193 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention of the grant of the patent:  
**10.07.2019 Bulletin 2019/28**

(51) Int Cl.:  
**F21V 37/02** <sup>(2006.01)</sup> **F21V 35/00** <sup>(2006.01)</sup>  
**F21W 131/10** <sup>(2006.01)</sup>

(21) Application number: **16020094.5**

(22) Date of filing: **22.03.2016**

(54) **FLAME SUPPORTING COVER**

SCHUTZHAUBE

COUVERCLE

(84) Designated Contracting States:  
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR**

(30) Priority: **23.03.2015 HR P20150331 T**

(43) Date of publication of application:  
**28.09.2016 Bulletin 2016/39**

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**Description****DESCRIPTION OF THE INVENTION****Field of the Invention**

**[0001]** The invention relates to the field of gravestone candles, lanterns, garden candles, torches and all other areas where the flame is used for heating, illumination or creating atmosphere.

**Technical Problem**

**[0002]** Weather conditions such as wind or rain significantly affect the burning of candles (lanterns). Through standard covers of the gravestone candles with vertically placed air openings the wind freely enters inside the housing of the candle, creates an air swirl inside the formwork, disturbs the flame and puts it out very often. Abundant rainfall, especially if carried by the wind, enters through the openings, mixes with melted paraffin and puts out the flame. As the top of the flame reaches up to 1.400°C. It significantly heats the lid, occasionally melts the plastic bearing and immerses inside the housing of the candle. Lifting the lid presents a risk of burn injuries.

**State of the Art**

**[0003]** The candles are protected from rainfall and wind by insertion into special housings (lanterns), whilst the gravestone candles are protected from rainfall and wind by the metal or plastic lids with vertical openings. In several patent searches we came across a few solutions which are in practice hardly feasible and financially unprofitable. We have not found any solution offered by the below presented invention.

**[0004]** Patent applications US 2014/0227650 A1, SI 9500184 A2, and SI 20169 A show known prior art in relation to the flame supporting cover.

**Summary of the Invention**

**[0005]** The invention is defined by the independent claims.

**[0006]** Flame Supporting Cover is a hollow three-dimensional object which covers the housing where the source of the flame is located. It consists of several parts which connect into a functional unit.

**[0007]** In a simple and efficient manner, it enables improved, safe and continued burning of the candle in the rain and the wind in a way that it prevents direct penetration of undesirable horizontal air flow into the housing of the lantern and flickering of the flame, and in accordance with fluid dynamics enables successful vertical warm air flow, product of combustion and air supply necessary for supporting the flame. The innovative lid heats less which has a positive effect on the plastic formwork and enables safer handling. The invention can be per-

formed in 6 versions.

**Brief Description of Drawing**

5 **[0008]** The accompanying drawings that are included in the description and which form part of the description of the invention, illustrate previously considered, best modalities of the invention and assist in explaining the methods of use of the invention.

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Image 1 displays the drawing of the lower part of the Flame Supporting Cover.

Image 2 displays the drawing of the lower part with detachable dome.

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Image 3 and 4 display the drawing and the ground plan of the upper part of the Flame Supporting Cover. Image 5 displays the drawing of the first version of the Flame Supporting Cover.

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Image 6 displays the drawing of the second version of the Flame Supporting Cover.

Image 7 displays the drawing of the third version of the Flame Supporting Cover.

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Image 8 displays the drawing of the fourth version of the Flame Supporting Cover.

Image 9 displays the drawing of the fifth version of the Flame Supporting Cover.

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Image 10 displays the drawing of the sixth version of the Flame Supporting Cover.

Image 11 displays the ground plan of the under-lid as part of the sixth version of the Flame Supporting Cover.

**Detailed Description of at Least One Mode of Realization of the Invention**

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Referring to image 1:

**[0009]** The lower part (1) of the Flame Supporting Cover consists of a wider seat (3) and narrower body (4). The lower part (1), in its first version has the body (4) with vertically placed openings (5) and it is vaulted with inverted dome (6). The dome (6) is spaced apart from the wall of the body (4). The walls of the body (4) can be placed vertically or can be less or more inclined whereby the body (4), from a three-dimensional aspect, could assume a mild form of a truncated cone. The depth of the cone, from a horizontal aspect, exceeds the upper edge of the vertical openings (5).

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Referring to image 2;

**[0010]** A specifically designed dome (6) can be inserted into the top of the body (4), of the lower part (1), whereby the lower part (1) would then consist of 2 separate parts.

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Referring to Image 3 and 4:

**[0011]** The upper part (2) of the Flame Supporting cover consists of the roofing (8) and the cape (7). The upper part (2), in its first version, has the roofing (8) which consists of horizontal openings (9) placed on its brim and the gutter (10) which can be horizontal or inclined. Horizontal openings (9) can also be placed horizontally or inclined. They are pierced from 3 sides so that the wings (11) that result from piercing the horizontal openings (9), on side looking towards the center of the upper part, (2) continue to hold on them Image 3 displays the scheme of the upper part (2) with inclined horizontal openings (9) and inclined gutter (10).

Referring to image 5:

**[0012]** After they are constructed, the lower part (1) and the upper part (2) connect into a functional unit (connect to form a functional unit), In the first version of the Flame Supporting Cover they connect in a way that the elevated part of the roofing (8) is located on the top of the body (4). Warm fluids stimulated by the flame rise up to the inverted dome (6), where they spill along it and exit through the upper part of the vertical openings (5) and further through horizontal openings (9) into the atmosphere, Due to the appearance of the negative pressure, fresh air is vacuumed through the space between the cape (7) and the seat (3) and through the lower part of the vertical openings (5) it enters into the housing of the candle and supports the burning of the flame. The cape (7), from the horizontal perspective, more than completely covers the vertical openings (5) and thereby disables direct penetration of undesirable horizontal air flow into the housing of the candle. The gutter (10) and the wings (11) prevent rain drops to contact the body (4) and their penetration through the vertical openings (5) into the interior of the lantern. During the burning of the candle, due to spreading of the material caused by heat, the top of the body (4) connects to the roofing (8) in such way that the lower part (1) and upper part (2) cannot be separated by the influence of bad weather conditions. The lower part (1) and the upper part (2) can be fastened for example by mechanical lateral impact in the area of the elevated roofing (8), which results in deformation of the sheet metal and fastens the components. As this cover as a whole cools down well, the temperature on the seat (3) by which the Flame Supporting cover is placed on the plastic body of the lantern, is lower than the temperature of the seats of standard sheet metal lids, which beneficially effects the plastic housing of the candle.

Referring to Image 6:

**[0013]** The second version of the Flame Supporting Cover has the upper part (2) known from the first version of the Flame Supporting Cover but performed with a longer cape (7) and suction openings (12) positioned in the

lower part of the cape (7). In the elevated part of the roofing (8) there is an inserted dome (6) that can be connected to it by the method described in the first version. The lower part (1) has a simplified form whereby the body (4) is not vaulted nor has any vertical openings. Through the suction openings (12) the air enters into the cover and passing over the hollow body (4) it enters into the housing of the candle and supports the burning of the flame. As the upper part (2) overlies the seat (3) by the cape (7), the upper part (2) together with the lower part (1) can be in the zone of the seat (3) connected by the same or by a method similar to the one described in the first version of the Flame Supporting Cover.

15 Referring to image 7;

**[0014]** The third version of the Flame Supporting Cover consists of the lower part (1), known from the first version of the Flame Supporting Cover, and the upper part (2), also known from the first version, but performed with a longer cape (7) and suction openings (12). As the upper part (2) primarily relies on the seat (3), the roofing (8) can have a less elevated part or it can be flat. The upper part (2) together with the lower part (1) can be in the zone of the seat (3) connected by the same or by a method similar to the one described in the first version of the Flame Supporting Cover.

Referring to image 8:

**[0015]** The fourth version of the Flame Supporting Cover consists of the lower part (1), known from the first version of the Flame Supporting Cover, and the upper part (2) performed with the cape (7), suction openings (12) and the roofing (8) in spherical shape with the outflow opening (13) located on its top. However, through such opening the rain can enter to a lesser extent but it will accumulate inside the dome (6) and since the top of the flame reaches a very high temperature it is to expect that the accumulated water will evaporate very fast which will have a positive effect on the cooling of the cover. The upper part (2) together with the lower part (1) can be in the zone of the seat (3) connected by the same or by a method similar to the one described in the first version of the Flame Supporting Cover.

Referring to Image 9:

**[0016]** The fifth version of the Flame Supporting Cover consists of the lower part (1) in the simplified form known from the second version of the Flame Supporting Cover and of the upper part (2) known from the third version of the Flame Supporting Cover. The upper part (2) together with the lower part (1) can be in the zone of the seat (3) connected by the same or by a method similar to the one described in the first version of the Flame Supporting Cover. Since the upper part (2) with the roofing (8) does not reach the body (4) there is no need that the part of

the roofing (8) is particularly elevated.

Referring to images 10 and 11:

**[0017]** The sixth version of the Flame Supporting Cover has the under-lid (14) which consists of inverted funnel (15) and the circumferential part (17). The inverted funnel (15) has the upper opening (16) on its top. The circumferential part (17) has the slope (18) and the lower openings (19). The upper part (2) in the shape of a bell with suction openings (12) and covered top openings (20) overlies the circumferential part (17). The under-lid (14) with the upper part (2) can be in the zone of the circumferential part (17) connected by the same or by a method similar to the one described in the first version of the Flame Supporting Cover. Warm fluids resulted from the burning of the flame are rising up, passing through the inverted funnel (15), the upper opening (16) and through the top openings (20) exit into the atmosphere. Fresh air enters through the suction openings (12) and further through the lower openings (19) into the housing of the candle and supports the burning of the flame.

#### Method of Application

**[0018]** The Flame Supporting Cover is universal and suitable as a lid of the most of classical lanterns. Apart from that it can be applied on garden candles or torches, that is, on every flame which is located inside the housing and is used for heating, illumination and creating the atmosphere. Mass production is possible. By means of the Flame Supporting Cover, certain producers of the candles or lids for lanterns can achieve significant advantage over the competition in the era of global influences on the local market.

The list of used reference signs:

#### **[0019]**

- 1 - lower part
- 2 - upper part
- 3 - seat
- 4 - body
- 5 - vertical openings
- 6 - dome
- 7 - cape
- 8 - roofing
- 9 - horizontal openings
- 10 - gutter
- 11 - wings
- 12 - suction openings
- 13 - outflow openings
- 14 - under-lid
- 15 - inverted funnel
- 16 - upper opening
- 17 - circumferential part
- 18 - slope

- 19 - lower openings
- 20 - top openings

#### 5 **Claims**

1. A flame supporting cover formed by several separate parts which connect to form a functional unit, comprising of a lower part (1-image 5), an upper part (2-image 5) and an inverted dome (6-image 5), **characterised by:**

a lower part (1-image 12), which includes a seat (3-image 1), a body (4-image 1,2) of smaller diameter, a formwork that has vertical openings (5-image 1) and that is vaulted by the inverted dome (6-image 1,2), which optionally can be separable and inserted into the top of the body (4-image 1,2);

and an upper part (2-image 3), which includes a roofing (8-image 3) with horizontal openings (9-image 3) located on the edge of the roofing (8-image 3) with wings (11-image 3), a gutter (10-image 3) and a cape (7-image 3).

2. A flame supporting cover formed by several separate parts which connect to form a functional unit, **characterised by:**

A lower part (1) which contains an under-lid (14-image 10) comprising of an inverted funnel (15-image 10,11) with upper openings (16-image 10,11) placed on it, a circumferential part (17-image 10,11) with a slope (18-image 10,11) and lower openings (19-image 10,11);

An upper part (2) in shape of a bell with suction openings (10-image 10) and covered top openings (20-image 10) which lies on the under-lid (14-image 10) in the zone of the circumferential part (17-image 11).

3. A flame supporting cover formed by several separate parts which connect to form a functional unit, comprising of a lower part (1-image 6), an upper part (2-image 6) and an inverted dome (6-image 6), **characterised by:**

a lower part (1-image 6), which includes a seat (3-image 6), a body (4-image 6) of smaller diameter, a formwork that has vertical openings (5-image 6) and that is vaulted by the inverted dome (6-image 6), which optionally can be separable and inserted into the top of a body (4-image 1,2);

an upper part (2-image 6), which includes a roofing (8-image 6) with horizontal openings (9-image 6) located on the edge of the roofing (8-image 6) with wings (11-image 6), a gutter (10-

image 6) and a cape (7-image 6) so that the elevated part of the roofing (8-image 6) overlies a body (4-image 6).

4. A flame supporting cover, comprising of a lower part (1-image 9) and an upper part (2-image 9), **characterised by:**

The upper part (2-image 9) which includes a roofing (8-image 9) with horizontal openings (9-image 9) located on the edge of the roofing (8-image 9) with wings (11-Image 9), a gutter (10-image 9) and a cape (7-image 9);

The lower part (1-image 9), which includes a seat (3-image 9) and a body (4-image 9) which has no vertical openings and is not vaulted.

5. A flame supporting cover formed by several separate parts which connect to form a functional unit, comprising of a lower part (1-image 7), an upper part (2-image 7) and an inverted dome (6-image 7), **characterised by:**

The lower part (1-image 7) comprised by the dome (6) which is a separate part inserted into the elevated part of a roofing (8-image 7);

The upper part (2-image 7) with a longer cape (7-image 7) and suction openings (12-image 7) which lie on the lower part (1-image 7) in the zone of a seat (3-image 7).

6. The flame supporting cover, according to claim 1 or 2, **characterized by** the upper part (2-image 6,7,8,9,10) which has the longer cape (7- Image 6,7,8,9,10), suction openings (12- Image 6,7,8,9,10) and connects with the lower part (1-image 6,7,8,9,10) in the zone of the seat (3- image 6,7,8,9,10).

7. The flame supporting cover, according to claim 1, **characterized by** the upper part (2-image 5) which connects with the lower part (1-image 5) on top of the body (4-Image 5).

8. A flame supporting cover, formed by several separate parts which connect to form a functional unit, comprised of:

the lower part (1-image 8), which includes a seat (3-image 8), a body (4-image 8) of smaller diameter a formwork that has vertical openings (5-image 8) and that is vaulted by an inverted dome (6-image 8), which optionally can be separable and inserted into the top of the body (4-image 8);

the upper part (2-image 8) consisting of a longer cape (7-image 8) that has suction openings (12-image 8) and a roofing (8-image 8) in spherical

shape which has an outflow opening (13-image 8) on its top and lies on the lower part (1-image 8) In the zone of the seat (3-image 8).

## Patentansprüche

1. Der feuerfeste Deckel setzt sich aus mehreren einzelnen Teilen zusammen, die miteinander verbunden sind, um eine Funktionseinheit zu bilden. Diese Funktionseinheit besteht aus einem Unterteil (1-Bild 5), einem Oberteil (2-Bild 5) und einer umgekehrten Kuppel (6-Bild 5), die durch Folgendes gekennzeichnet sind:

den Unterteil (1-Bild 1,2), der aus einem Sitz (3-Bild 1), einem Körper (4-Bild 1,2) kleineren Durchmessers und einer Schalung mit vertikalen Öffnungen (5-Bild 1) besteht, die mit einer umgekehrten Kuppel gewölbt sind (6-Bild 1,2), und der in einigen Ausführungen abtrennbar ist und in den oberen Teil des Körpers eingefügt werden kann (4-Bild 1,2)

den Oberteil (2-Bild 3), der aus einer Bedachung (8-Bild 3) mit horizontalen Öffnungen (9-Bild 3), die am Rand der Bedachung liegen, mit Flügeln (11-Bild 3), Rinne (10-Bild 3) und Umhüllung (7-Bild 3) besteht.

2. Der feuerfeste Deckel setzt sich aus mehreren einzelnen Teilen zusammen, die miteinander verbunden sind, um eine Funktionseinheit zu bilden. Diese Funktionseinheit ist durch Folgendes gekennzeichnet:

einen Unterteil (1) mit einem Unterdeckel (14-Bild 10) bestehend aus einem umgekehrten Trichter (15-Bild 10,11), der mit oberen Öffnungen (16-Bild 10, 11) versehen ist, einem umlaufenden Teil (17-Bild 10, 11) mit einer Steigung (18-Bild 10, 11) und unteren Öffnungen (19-Bild 10,11).

einen glockenförmigen Oberteil (2) mit Ansaugöffnungen (10-Bild 10) und gedeckten oberen Öffnungen (20-Bild 10), der auf den Unterdeckel (14-Bild 10) im Bereich des umlaufenden Teils aufliegt (17-Bild 11).

3. Der feuerfeste Deckel setzt sich aus mehreren einzelnen Teilen zusammen, die miteinander verbunden sind, um eine Funktionseinheit zu bilden. Diese Funktionseinheit besteht aus einem Unterteil (1-Bild 6), einem Oberteil (2-Bild 6) und einer umgekehrten Kuppel (6-Bild 6), die durch Folgendes gekennzeichnet sind:

den Unterteil (1-Bild 6), der aus einem Sitz (3-Bild 6), einem Körper (4-Bild 6) kleineren Durch-

- messers und einer Schalung mit vertikalen Öffnungen (5-Bild 6) besteht, die mit einer umgekehrten Kuppel gewölbt ist (6-Bild 6), und der in einigen Ausführungen abtrennbar ist und in den oberen Teil des Körpers eingefügt werden kann (4-Bild 1,2)
- den Oberteil (2-Bild 6), der aus einer Bedachung (8-Bild 6) mit horizontalen Öffnungen (9-Bild 3), die am Rand der Bedachung (8-Bild 6) liegen, mit Flügeln (11-Bild 6), Rinne (10-Bild 6) und Umhüllung (7-Bild 6) besteht, so dass der gehobene Teil der Bedachung (8-Bild 6) über den Körper liegt (4-Bild 6).
4. Der feuerfeste Deckel setzt sich aus einem Unterteil (1-Bild 9) und einem Oberteil (2-Bild 9) zusammen, die durch Folgendes gekennzeichnet sind:
- den Oberteil (2-Bild 9), der aus einer Bedachung (8-Bild 9) mit horizontalen Öffnungen (9-Bild 9), die am Rand der Bedachung (8-Bild 9) liegen, mit Flügeln (11-Bild 9), Rinne (10-Bild 9) und Umhüllung (7-Bild 9) besteht
- den Unterteil (1-Bild 9), der den Sitz (3-Bild 9) und den Körper (4-Bild 9) umfasst, keine vertikalen Öffnungen hat und nicht gewölbt ist.
5. Der feuerfeste Deckel setzt sich aus mehreren einzelnen Teilen zusammen, die miteinander verbunden sind, um eine Funktionseinheit zu bilden. Diese Funktionseinheit besteht aus dem Unterteil (1-Bild 7), dem Oberteil (2-Bild 7) und der umgekehrten Kuppel (6-Bild 7), die durch Folgendes gekennzeichnet sind:
- Der Unterteil (1-Bild 7) umfasst die Kuppel (6), die einen separaten Teil darstellt, der in den gehobenen Teil der Bedachung (8-Bild 7) eingefügt ist.
- Der Oberteil (2-Bild 7) mit längerer Umhüllung (7-Bild 7) und Ansaugöffnungen (12-Bild 7), die auf dem Unterteil (1-Bild 7) im Bereich des Sitzes liegen (3-Bild 7).
6. Der feuerfeste Deckel ist laut Ansprüchen 1 oder 2 durch den Oberteil (2-Bild 6, 7, 8, 9, 10) gekennzeichnet, der eine längere Umhüllung (7- Bild 6, 7, 8, 9, 10) sowie die Ansaugöffnungen (12- Bild 6, 7, 8, 9, 10) hat und mit dem Unterteil (1- Bild 6, 7, 8, 9, 10) im Bereich des Sitzes verbunden ist (3-Bild 6, 7, 8, 9, 10).
7. Der feuerfeste Deckel ist laut Ansprüchen 1 oder 2 durch den Oberteil (2-Bild 5) gekennzeichnet, der mit dem Unterteil (1-Bild 5) im Bereich des Körpers (4-Bild 5) verbunden ist.
8. Der feuerfeste Deckel ist durch mehrere einzelne

Teile gebildet, die miteinander verbunden sind, um eine Funktionseinheit zu bilden. Diese Funktionseinheit ist durch Folgendes gekennzeichnet:

Der Unterteil (1-Bild 8), der aus einem Sitz (3-Bild 8), einem Körper (4-Bild 8) kleineren Durchmessers und einer Schalung mit vertikalen Öffnungen (5-Bild 8) besteht, die mit einer umgekehrten Kuppel gewölbt ist (6-Bild 8), und der in einigen Ausführungen abtrennbar ist und in den oberen Teil des Körpers eingefügt werden kann (4-Bild 8)

Der Oberteil (2-Bild 8), der aus längerer Umhüllung (7-Bild 8) mit Ansaugöffnungen (12-Bild 8) und einer kugelförmigen Bedachung (8-Bild 8), die eine oben liegende Abflussöffnung (13-Bild 8) hat und auf dem Unterteil (1-Bild) im Bereich des Sitzes (3-Bild 8) liegt.

### Revendications

1. Un couvercle résistant aux flammes qui est formé de plusieurs parties séparées reliées afin de former une unité fonctionnelle, comprenant une partie inférieure (1-image 5), une partie supérieure (2-image 5) et un dôme inversé (6-image 5), est **caractérisé en ce que** :

la partie inférieure (1-image 12), comprend un siège (3-image 1), un corps (4-image 1,2) de diamètre inférieur, un coffrage aux ouvertures verticales (5-image 1) qui est voûté par le dôme inversé (6-image 1,2), qui dans certaines versions peut être séparé et inséré dans la partie supérieure du corps (4-image 1,2) ;

la partie supérieure (2-image 3), comprend une toiture (8-image 3) aux ouvertures horizontales (9-image 3) situées sur le bord de la toiture (8-image 3) aux ailes (11-image 3), une gouttière (10-image 3) et une cape (7-image 3).

2. Un couvercle résistant aux flammes qui est formé de plusieurs parties séparées reliées afin de former une unité fonctionnelle, est **caractérisé en ce que** :

la partie inférieure (1) contient un sous-couvercle (14-image 10) constitué d'un entonnoir renversé (15-image 10,11) avec des ouvertures supérieures (16-image 10,11) placés sur lui, une partie circonférentielle (17-image 10,11) avec une pente (18-image 10,11) et des ouvertures inférieures (19-image 10,11) ;

la partie supérieure (2) en forme de cloche aux ouvertures d'aspiration (10-image 10) et aux ouvertures couvertes en haut (20- image 10) qui se trouve sur le sous-couvercle (14-image 10) dans la zone de la partie circonférentielle (17-

image 11).

3. Un couvercle résistant aux flammes qui est formé de plusieurs parties séparées reliées afin de former une unité fonctionnelle, comprenant une partie inférieure (1-image 6), une partie supérieure (2-image 6) et un dôme inversé (6-image 6), est **caractérisé en ce que** :

la partie inférieure (1-image 6), comprend un siège (3-image 6), un corps (4-image 6) de diamètre inférieur, un coffrage aux ouvertures verticales (5-image 6) et est voûtée par le dôme inversé (6-image 6), qui dans certaines versions peut être séparé et inséré dans la partie supérieure du corps (4-image 1,2) ;  
la partie supérieure (2-image 6), comprend une toiture (8-image 6) aux ouvertures horizontales (9-image 6) situées sur le bord de la toiture (8-image 6) aux ailes (11-image 6), une gouttière (10-image 6) et une cape (7-image 6) de manière à ce que la partie élevée de la toiture (8-image 6) surmonte le corps (4-image 6).

4. Un couvercle résistant aux flammes comprenant une partie inférieure (1-image 9) et une partie supérieure (2-image 9), est **caractérisé en ce que** :

la partie supérieure (2-image 9) comprend une toiture (8-image 9) aux ouvertures horizontales (9-image 9) situées sur le bord de la toiture (8-image 9) aux ailes (11-image 9), une gouttière (10-image 9) et une cape (7-image 9) ;  
la partie inférieure (1-image 9), comprend un siège (3-image 9) et un corps (4-image 9) qui n'a aucune ouverture verticale et qui n'est pas voûté.

5. Un couvercle résistant aux flammes qui est formé de plusieurs parties séparées reliées afin de former une unité fonctionnelle, comprenant une partie inférieure (1-image 7), une partie supérieure (2-image 7) et un dôme inversé (6-image 7), est **caractérisé en ce que** :

la partie inférieure (1-image 7) est constituée d'un dôme (6) qui est une partie séparée insérée dans la partie élevée de la toiture (8-image 7) ;  
la partie supérieure (2-image 7) a une cape plus longue (7-image 7) et des ouvertures d'aspiration (12-image 7) situées sur la partie inférieure (1-image 7) dans la zone du siège (3-image 7).

6. Un couvercle résistant aux flammes, selon la revendication 1 ou 2, est **caractérisé par** une partie supérieure (2-image 6,7,8,9,10) qui a une cape plus longue (7- image 6,7,8,9,10), des ouvertures d'aspiration (12- image 6,7,8,9,10) et qui est reliée à la

partie inférieure (1- image 6,7,8,9,10) dans la zone du siège (3- image 6,7,8,9,10).

7. Un couvercle résistant aux flammes, selon la revendication 1 ou 2, est **caractérisé par** une partie supérieure (2-image 5) qui est reliée à la partie inférieure (1-image 5) dans la zone du corps (4-image 5).

8. Un couvercle résistant aux flammes, formé par plusieurs parties séparées reliées afin de former une unité fonctionnelle, comprenant :

une partie inférieure (1-image 8), qui comprend un siège (3-image 8), un corps (4-image 8) de diamètre inférieur, un coffrage aux ouvertures verticales (5-image 8) et qui est voûté par un dôme inversé (6-image 8), qui dans certaines versions peut être séparé et inséré dans la partie supérieure du corps (4-image 8) ;  
une partie supérieure (2-image 8) qui comprend une cape plus longue (7-image 8) aux ouvertures d'aspiration (12-image 8) et une toiture (8-image 8) de forme sphérique qui a une ouverture de sortie (13-image 8) au sommet et qui se trouve sur la partie inférieure (1-image 8) de la zone du siège (3-image 8).

IMAGE 1

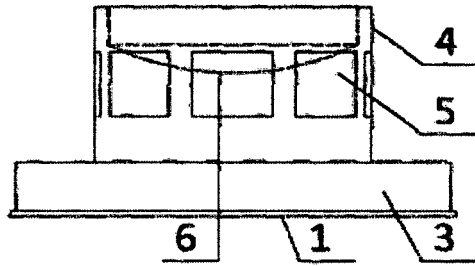


IMAGE 2

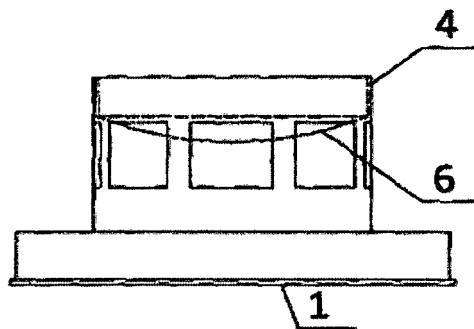




IMAGE 3

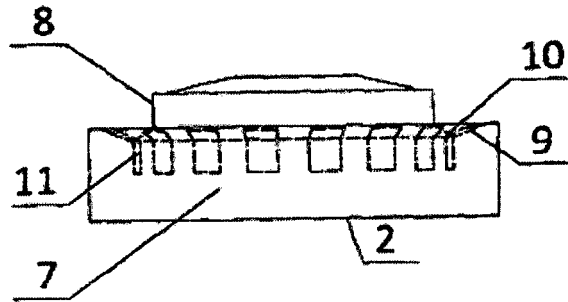


IMAGE 4

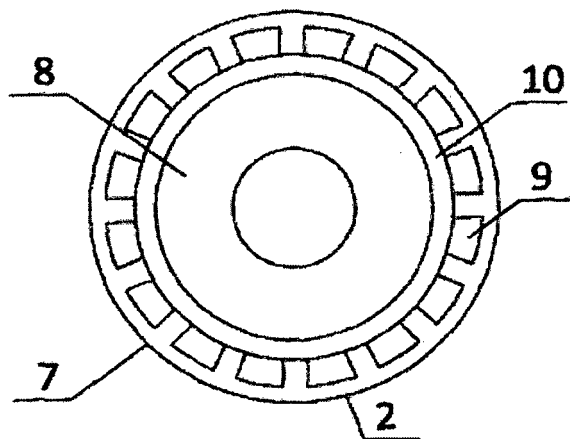


IMAGE 5

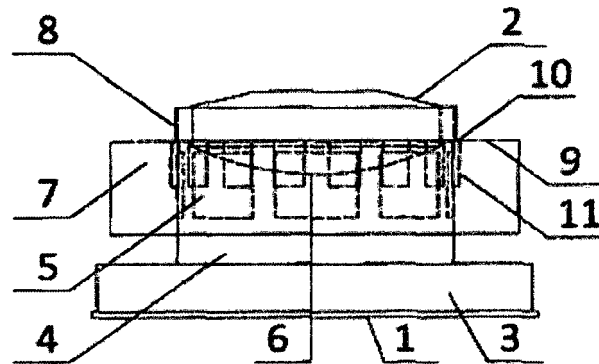


IMAGE 6

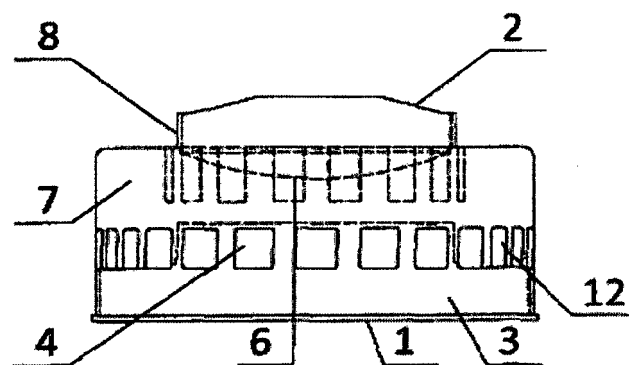


IMAGE 7

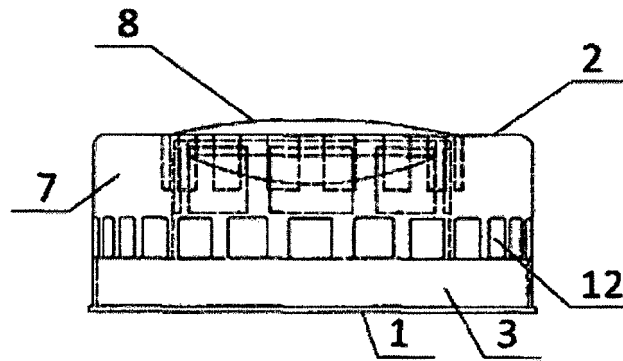


IMAGE 8

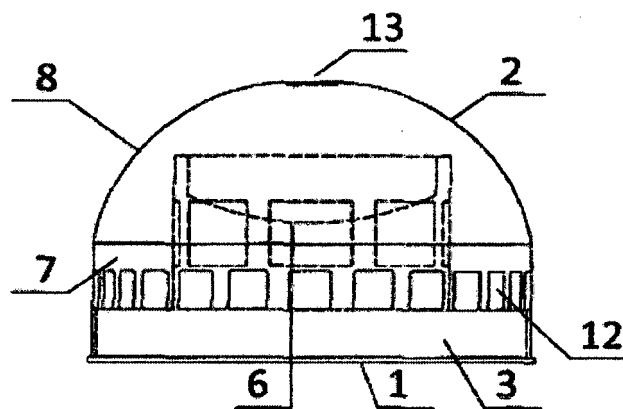


IMAGE 9

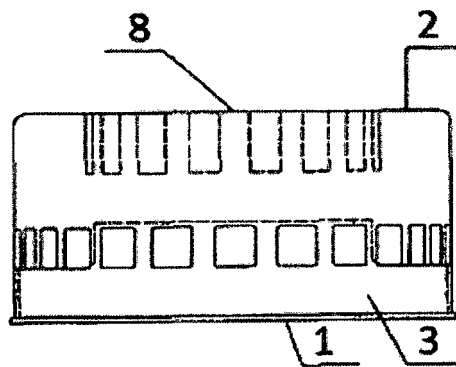


IMAGE 10

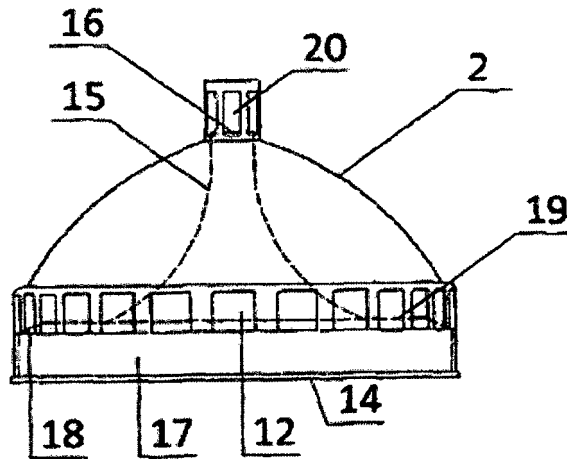
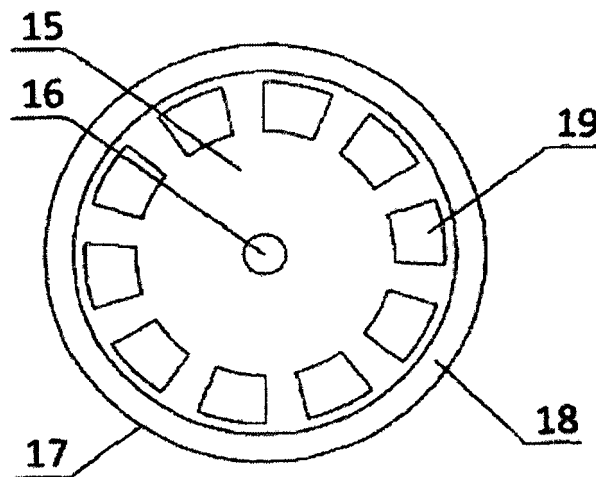


IMAGE 11



**REFERENCES CITED IN THE DESCRIPTION**

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**Patent documents cited in the description**

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- SI 20169 A [0004]