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(54) Lighther with a bulb imitating a flame

(57) Consists in a disposable or rechargeable lighter (Fig. 1&2) which the interior has been transformed to contain batteries and a specific bulb imitating a flame. The pusher or lever depending on the model, also received a transformation to act as a push button or switch, and once pressed upon or the lid opened, the bulb will turn on giving the aspect of a real gas or gasoline lighter.

Exists gas and gasoline lighters manufactured in plastic or metal and also torches which are designed to illuminate specific areas. There are also lighters attached to torches and to other devices, used normally for camping or sports.

This false lighter have been designed for film, television and music industry, specially when the usage is required for a long period, avoiding the danger of deformations, explosions or bums which often happens with the real lighters.

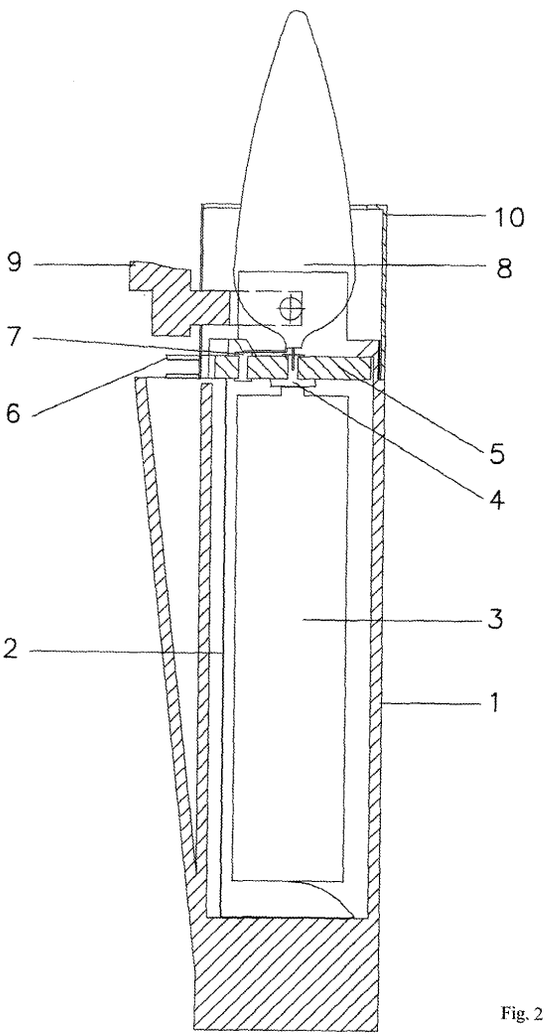

Fig. 2

EP 1 524 467 A2

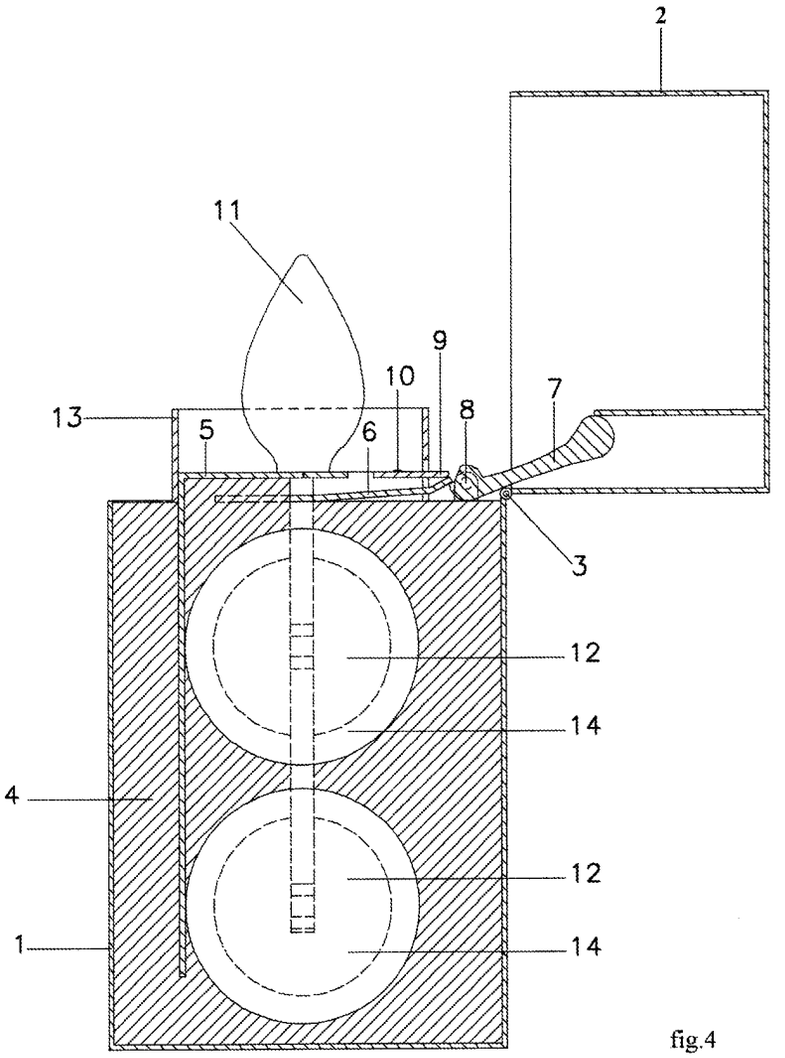

fig.4

Description

OBJECTIVE OF THE INVENTION

[0001] The present invention denominated false lighter, refers to a common gas or gasoline lighter made in plastic or metal, whose interior has been emptied and transformed to contain power accumulators (batteries), and in the corresponding part of the lighter gas mouthpiece, or in the gasoline type, in place of the wick, a specific designed bulb have been placed to give the aspect of a real flame.

[0002] The device has a plate that lodges an electric terminal on the lower side which feeds the positive load of the battery by contact through the conductive thread from the terminal to one of the bulb poles located in the upper part of the mentioned plate. Also in this upper part of the plate and separated from the conductive thread of the central electric terminal, a narrow strip of flexible metal connected to the opposed pole of the bulb and lengthened to the lighters lateral and stopping exactly below the base of the push button, like the ones used in the common lighters to allow the gas output. When pressing on this push button, the mentioned narrow metal strip will flex and will enter in contact with a second narrow metal strip made of the same material as the previous one which rests separate and equidistantly below the previous one. This second narrow metal strip comes from the interior base of the lighter and have been specifically bent to allow it to be the elliptic spring that will pressurise upwards the accumulator, be the transmitter of the accumulator negative load and to be part of the contact system of the push button for the bulb lighting.

ANTECEDENTS OF THE INVENTION

[0003] Exists several types of gas or gasoline lighters, as well as electric torches and other devices of illumination. In such case we can mention the disposable or rechargeable gas lighters manufactured mainly in plastic or the gasoline lighters in the majority made in metal. The lighters produce a regular flame and normally are used for the ignition of cigarettes among others. On the other hand, the manufactured torches made of diverse materials have been developed specifically to illuminate an uncertain area according to the user. There is known about some gas and electric lighters that have an attached torch and also other devices that combine several articles with the previously mentioned techniques and used for camping or sports among others.

DESCRIPTION OF THE INVENTION

[0004] The device of this invention presents the similar outer aspect of a lighter denominated as common or conventional and already described in the antecedents of the invention, whose interior has suffered a transformation to contain one or several power accumulators, and in the area dedicated to the gas mouthpiece or the wick, a plate have been placed containing a bulb whose characteristic of design, imitate a real flame.

[0005] The lever or push button that allows the exit of the gas in the described lighter have also been transformed to serve as an electric push button to cause the lighting of the bulb, action that is possible when pressing on this push button causing the union of the two strips of flexible metal , one coming from the base of the accumulator or the negative pole of the battery, and the other strip of flexible metal that is directly connected to one of the poles of the bulb which is housed in the above mentioned plate. The positive pole of the accumulator, is directly in contact with the opposed pole of the bulb through the conductive thread of the terminal that is located in the inferior central part of the plate.

[0006] The device have been thought as the main objective, in their use in shows, film or television where frequent burns, deformations and explosions of the habitual lighters is caused by the heat of the real flame when their use is required during a long period of time.

[0007] To complete the description and with the purpose of helping to a better understanding of the characteristics of the invention, the present descriptive memory is accompanied by a set of drawings that will make it easy to understand the innovations and advantages of this device which is the objective of this invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008]

Figure 1. - Shows a exploded isometric view of the 10 pieces that conforms the device denominated previously as a common gas lighter.

Figure 2. - Shows a exploded section view of the 10 pieces that conform the device denominated previously as a common gas lighter.

Figure 3. - Shows a exploded isometric view of the 14 pieces that conform the device denominated previously as gasoline lighter.

Figure 4. - Shows a exploded section view of the 14 pieces that conform the device denominated previously as gasoline lighter.

DESCRIPTION OF A FAVOURITE WAY OF ACCOMPLISHMENT

[0009] In view of the mentioned Figures 1 and 2, we can observe that the device consists of ten parts coupled to each other and being formed by: Part 1, main body of the lighter that will house all and each one of the Parts (2, 3, 4, 5, 6, 7, 8, 9 and 10); Part 2, a strip of flexible metal that once introduced inside the main body 1 it will serve as a elliptic spring and will apply upward pressure to the power accumulator 3 insuring the contact of the power accumulator 3 with the connection terminal 4, and is also in charge of transporting the nega-

tive current from the base of the accumulator 3 till the upper part of the main body 1, forming this strip of flexible metal 2, part of the contact for the lighting of the bulb 8; Part 3, common power accumulator (battery) with their negative and positive poles; Part 4, connection terminal, inserted from the inferior central part of the plate 5 and directly connected through to the top side of the plate 5 by the conductive wire and this to be soldered to one of the bulb 8 poles; Part 5, connections plate which contains on the lower side a connection terminal 4 and on the upper side, a strip of flexible metal 6, united by a rivet 7, being this strip of flexible metal 6, and rivet 7 slightly displaced of the center of the plate 5 to avoid the contact with the connection terminal 4. In the upper side of this plate 5, the two bulb 8 poles will be soldered separately, one to the strip of flexible metal 6, and the other one to the salient or superior conductive wire of the connection terminal 4. This plate 5 will also be in charge of compressing and closing the Parts 2, 3 and 4 inside the main body 1 when introduced onto the upper opening and locked by small ridges on the internal upper side of Part 1; Part 6, strip of flexible metal 6 fastened to the plate 5 by a small rivet 7. This strip of flexible metal 6 is part of the contact mechanism made by the Parts 2, 6 and 9 respectively for the electric lighting of the bulb 8; Part 7, rivet or screw to fasten the strip of flexible metal 6, to the plate 5; Part 8, bulb specifically designed as a real candle or as a flame form whose two contact poles will be soldered one to the conductive thread or salient of the connection terminal 4 and the other one to the strip of flexible metal 6; Part 9, push button that once the lateral stubs are introduced into the corresponding cavities in the internal superior part of the main body 1, it will tilt, leaning on to the part 6 and using it as a spring and electric contact. The push button 9 is used to produce the contact between the part 6 and part 2 by compressing the two, allowing the closure of the electric circuit and subsequently the lighting of the bulb 8; Part 10, chromed metallic or plastic embellishment that will lock in the external superior part of the main body 1 in their corresponding cavities, closing the mechanisms and parts 2, 3, 4, 5, 6, 7, 8 and 9, and giving the appearance of a common lighter which is the objective of the invention.

2. - DESCRIPTION OF A FAVOURITE WAY FOR ACCOMPLISHMENT

[0010] In view of the mentioned Figures 3 and 4, and as an alternative to the device specifications described in page 6, we observe that the form can be varied to acquire different appearances. In this case and as shown in the figures 3 and 4, the device resembles to a gasoline lighter and which favourite form of accomplishment is explained as follows: Part 1, main body of the lighter with a built in hinge, this to be jointed to the Part 2 by means of a pin 3; Part 2, lid of the lighter with the other part of the hinge, this to be jointed to the Part 1 by means of a pin 3; Part 3, pin of union of Part 1 to Part 2 by joining the hinges attached to the Parts 1 and 2; Part 4, interior chassis for the Part 1 constructed to lodge the Parts 5, 6, 7, 8, 9, 10, 11, 12, 13 and 14; Part 5, strip of flexible metal that will connect the positive poles of the accumulators in parallel and will extend till one of the bulb 11 poles; Part 6, strip of flexible metal that will connect the negative poles of the accumulators in parallel and will extends to form part of the lighting switching system; Part 7, toggle lever which joined to the Part 4 through the pin 8 serves as a switch by pressing on the Part 6 and to maintaining it separated from the Part 9 or the opposite pole of the bulb 11. This happens when the cover or Part 2 is in the closed position. When opening the cover or Part 2, the lever 7 moves on the pin 8 helped by an edge located in the inside of Part 2, liberating in this case the pressure exercised on the strip of flexible metal 6. To this effect, the strip of flexible metal 6 returns to its initial position and make contacts with the strip of flexible metal 9 that in turn is directly connected to the second pole of the bulb 11; Part 8, pin for the union of the Part 7 with the upper side of Part 4; Part 9, strip of flexible metal connected to one of the poles of the bulb 11 and part of the lighting mechanism; Part 10, rivet or screw to fasten the strip of flexible metal 9 to the upper side of Part 4: Part 11, bulb specifically designed as a real candle or as a flame form whose contact poles will be soldered separated to Part 5 and Part 9 respectively; Part 12, button type power accumulators, although another type of accumulators are not discarded. These accumulators enter in direct contact with the Parts 5 and 6 in their respective positive and negative contacts; Part 13, embellishment that covers the salient electrical items of the Parts 5 and Part 9, as well as the soldering of the Part 11 onto Part 4; Part 14, plugs to avoid the contact of the accumulators 12 to the main body 1 in the eventuality of being manufactured in metal.

Claims

1. FALSE LIGHTER which being made in the base of a disposable common gas lighter and whose interior of the main body 1 have been emptied and transformed to contain a current accumulator 3. The negative current of the accumulator 3 is then transported by a strip of flexible metal 2 from the base of the accumulator 3 till the superior part of the main body 1. in turn, the positive load of the accumulator 3 is transmitted through the terminal 4 located in the plate 5 and that is directly connected to one of the poles of the bulb 8. The plate 5 have coupled in its upper side, another strip of flexible metal 6 fasten with a rivet or screw 7 that serves as the contact of the opposite pole of the bulb 8 and as a spring for the push button 9 and at the same time, being one of the electric contacts of the lighting system for the bulb 8. This plate 5 locks on some interior small ridg-

es in the upper part of the main body 1, collaborating in the pressure that the strip of flexible metal 2 exercises on the base of the accumulator 3 upwards against the terminal 4. A push button 9 similar to the ones used in the common gas lighters that also have been transformed and fitted into the main body 1 have the mission of uniting the narrow metal plates 2 and 6 and when being pressed together will close the circuit and cause the lighting of the bulb 8. A chromed embellishment 10 made of plastic or metal will give the aspect of a common gas lighter and fulfil the objective of this utility model.

2. FALSE LIGHTER, as an alternative to the false lighter described previously, other existent models in the market can be transformed to fulfil the same purpose, like it is the case of a gasoline model whose operation difference rests in the connections of the electric switch that works by a lever 7, that in this particular case, when the cover 2 opens, the lever 7, releases the pressure over the strip of flexible metal 6 which transports the negative current of the accumulators 12 causing the contact with the other strip of flexible metal 9 which is connected directly to one of the bulb 11 poles, while the positive load goes to the other pole of the bulb 11 directly through the strip of flexible metal 5. Small plugs 14 will avoid the contact of the accumulators 12 with the main body 1 in the eventuality that this is made in metal, and an embellishment 13 will cover the soldering and connections in the upper side of part 4. The part 4 with all the elements described previously is introduced in the main body 1 and once the main body 1 is closed by the cover 2, it will give the appearance of a normal gasoline lighter but with different utility as is the objective of this invention.

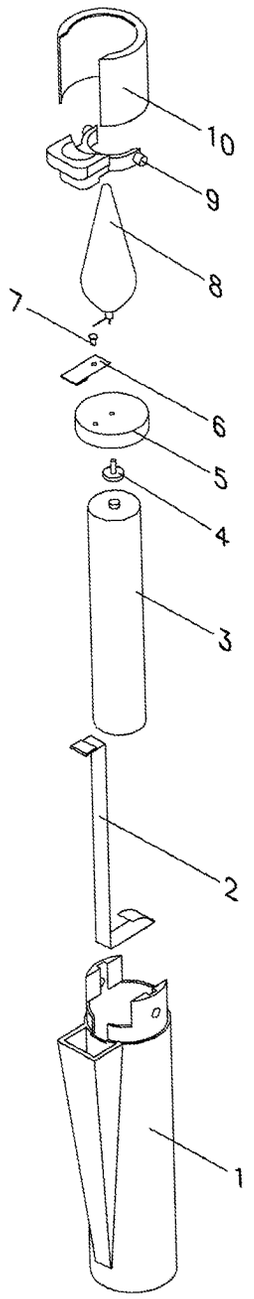

fig.1

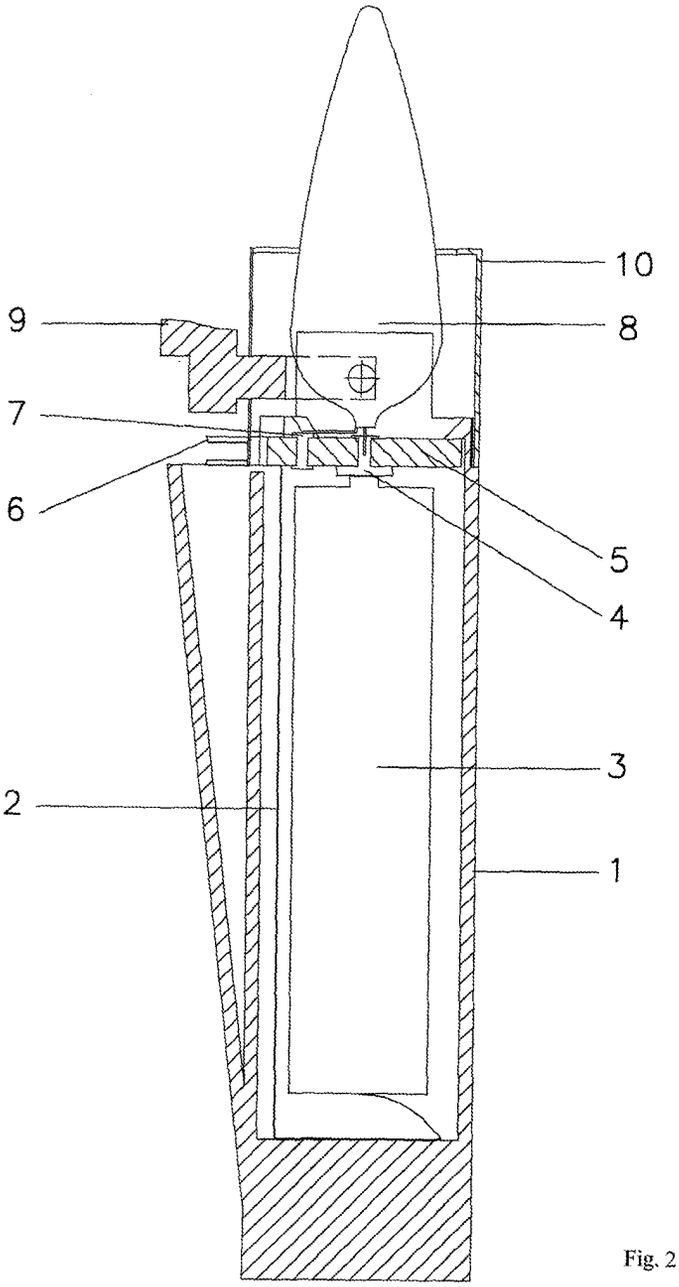

Fig. 2

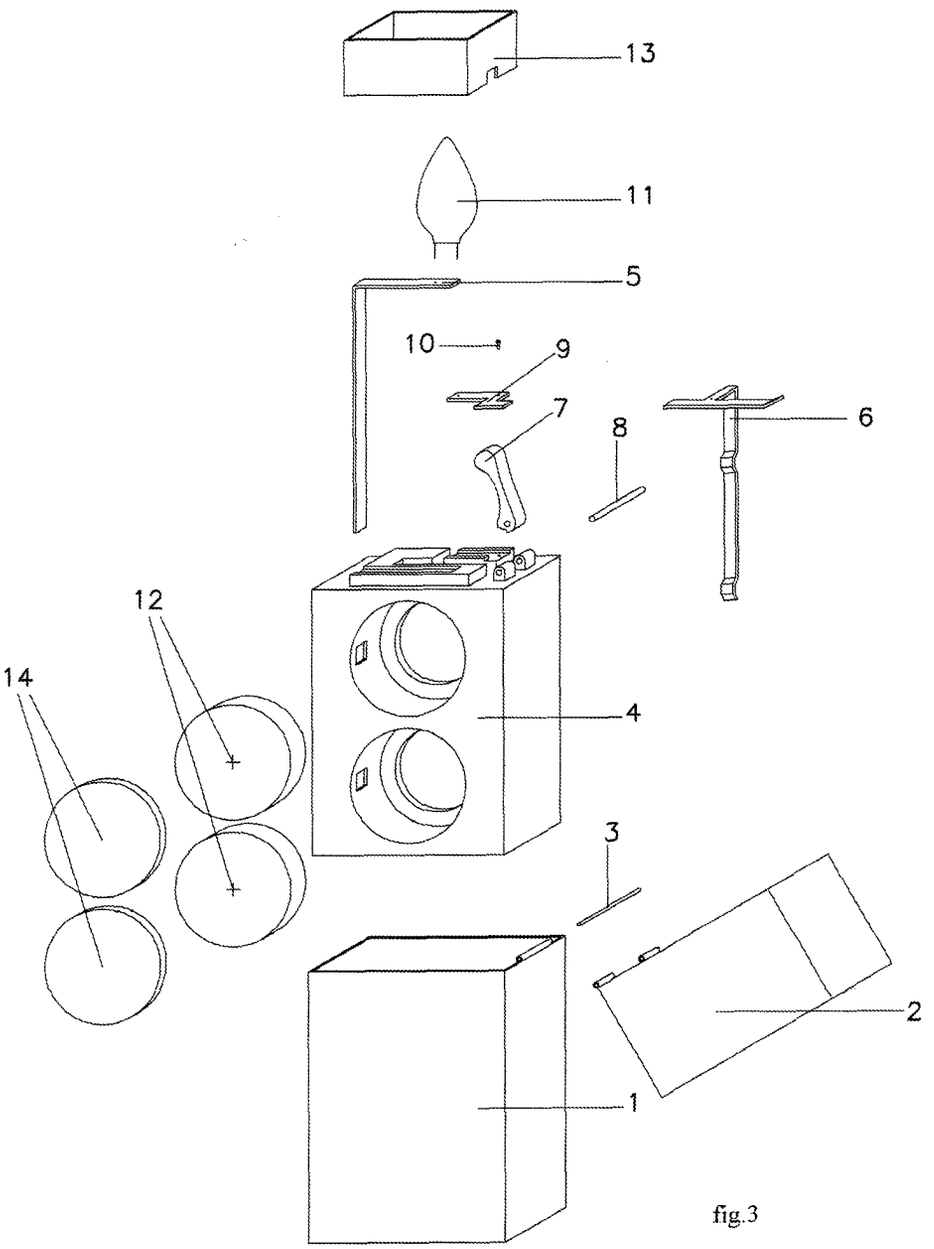

fig.3

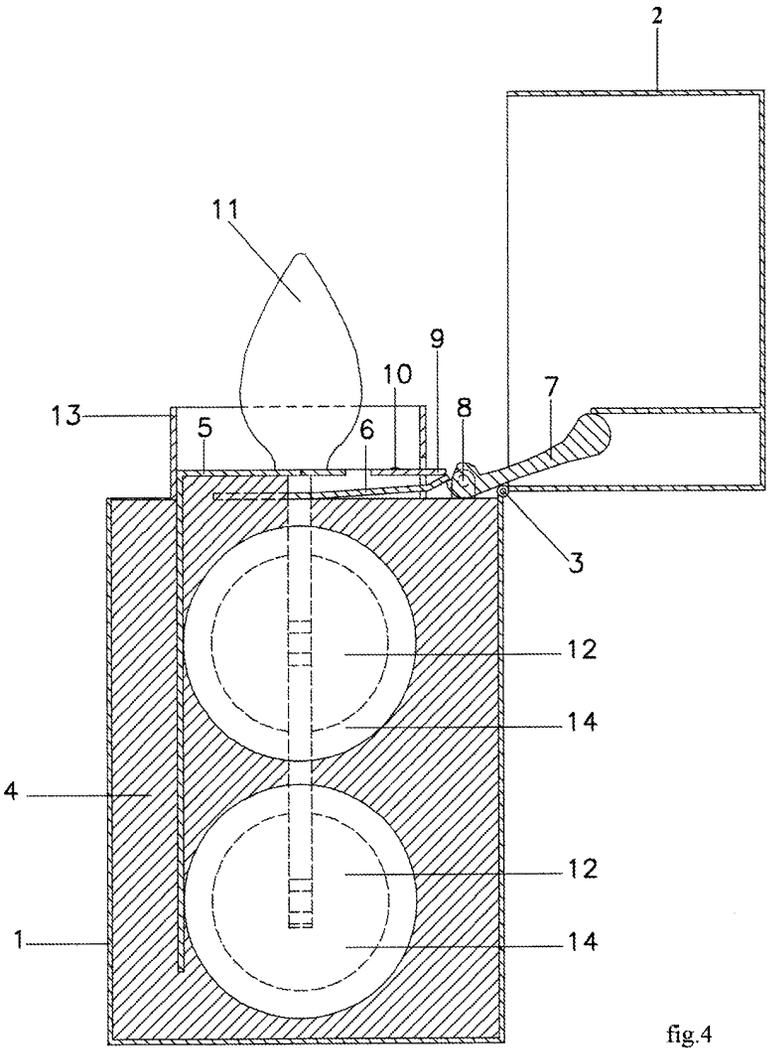

fig.4