



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
11.04.2018 Bulletin 2018/15

(51) Int Cl.:
G09F 7/18 (2006.01)
G09F 15/00 (2006.01) **G09F 27/00 (2006.01)**

(21) Application number: **16382460.0**

(22) Date of filing: **09.10.2016**

(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
Designated Extension States:
BA ME
Designated Validation States:
MA MD

• **Led Dream, S.L.**
11160 Barbate (ES)

(72) Inventors:
• **CEPERO RAMIREZ, JUAN FRANCISCO**
11160 BARBATE (ES)
• **CHAMERO MARTINEZ, MANUEL**
11160 BARBATE (ES)

(71) Applicants:
• **Cepero Ramirez, Juan Francisco**
11160 Barbate (ES)
• **Chamero Martinez, Manuel**
11160 Barbate (ES)

Remarks:
Amended claims in accordance with Rule 137(2) EPC.

(54) **IMPROVED PUBLIC LIGHT POSTS AND OUTDOOR ADVERTISEMENT**

(57) Improved light poles and other outdoor advertising media, which consists of a system that provides elements of public illumination, advertising media, urban furniture specialized in charging, lockers, store windows,

etc., with means of payment with contact and without contact, as well as an efficient aromatic diffuser to apply on olfactory marketing techniques for open spaces.

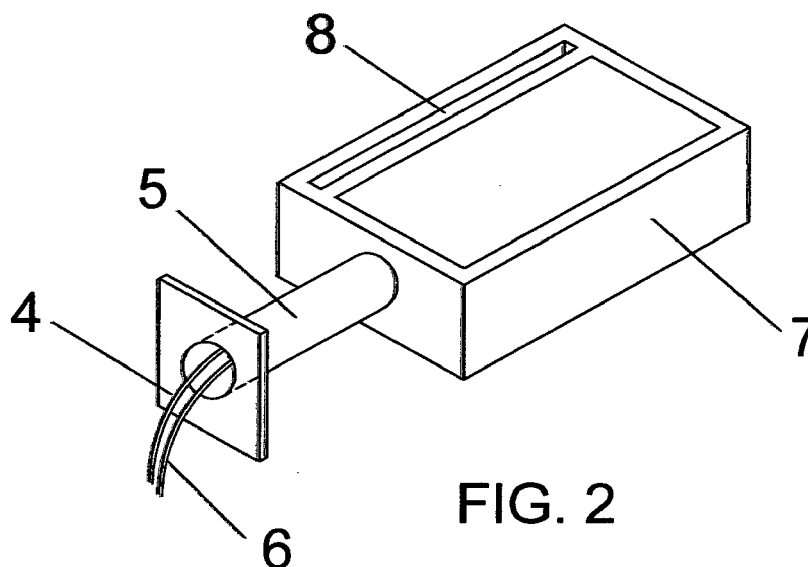


FIG. 2

Description

Technical field of the invention

[0001] The invention is contained in the technical field of public illumination; it works as an advertisement support for lampposts, canopies, phone booths, lockers, billboards, etc.

Objective of the invention

[0002] The objective of this invention is, as the title says, to offer a range of developments, through technical resources, that allow the transformation of outdoor advertising (), into efficient selling points, basic advertisement centers and also an effective ways of capturing and showing pictures, messages, alerts, etc.

Precedents of the invention

[0003] Starting with our own invention, utility model 201530798, multifunctional public light post, and European patent EP16382325.5, where it can be found one of the most important evolutions of public illumination, we can see that those improvements are not able to add any interactivity with the consumer, so that it's effectivity is quite reduced.

[0004] The consumer will always be more willing to consume in the right moment they receive the advertisement than a moment later, for what many techniques have been developed but do not make use of the full potential of outdoor advertisement, where it could have a big impact.

[0005] It is essential, to take into account the different forms of outdoor advertisement, it's functionality, the consumers, the traffic around it, the potential impact, the potential sales it can generate, etc.

[0006] If we consider that when a message is shown on a screen in a bus stop or a public light next to a crosswalk we get the attention of the consumers for some second or minutes, which are enough to influence their buying decision, what makes mandatory to assess the viability of including some ways of acquiring those products shown on the screen.

[0007] Nowadays different ways of shopping are growing up, based on technological advances, to enable the remote purchase, avoiding the need of moving to the physical shop on a restricted schedule.

[0008] Using electronic devices connected to internet, with enough security, we can make purchases from anywhere, anytime, receiving them where we want to, but still we do not find a real chance of immediately acquiring a product right after seeing it's advertisement since, many times, we must wait until we get home risking the chance of losing that sale. Not even on a closed store's storefront.

[0009] A limited sale, that included a QR code, where a product or service of our interest was offered, might

turn useless due to the lack of the needed resources at that right moment, even thou it may be the best moment for the purchase.

[0010] On another hand, some ways of influencing the purchasing act have been established, by some prestigious Universities, that can force, with quite success, the consumer to rush his purchase.

[0011] One example is the scent marketing that, using the power of making the consumer react in some way, brings some big advantages, like: increase in the time the customers stay inside the store, make the customers want to go back and, likely, buy again, improve the way they perceive the product, etc.

[0012] This resource is rarely used and, of course, only indoor, for example in a store, where it can result as a better position between other stores.

[0013] For all these reasons, and taking advantage of our earlier invention utility model U201530798, and European patent EP16382325.5, we advocate a group of elements that allow us to turn a public light post and others outdoor advertisement elements (including storefronts) into contactless or with contact immediate selling points.

Description of the invention

[0014] Starting with an example of realization that can be adapted to this invention, for example utility model U201530798 and European patent EP16382325.5, first we modify the post or frame by making a vertical groove, for the wires to go through, placed at a comfortable height for the costumer, like an ATM. Also, we make another groove at the height of the head of an average height person, to make the inside of the post be connected to the outside.

[0015] These two holes will equally be made on any other physical support, so that it can include all the elements included in the invention.

[0016] The vertical groove will be overlapped with a rectangular box, opened on its back and with a grooved front, both grooves in perfect alignment.

[0017] The box will be set to the outdoor advertisement element in each chase (light posts, bus stops, telephone booths, billboards, lockers, etc.) or to storefronts, by any known way, for example by weld, riveted, screwed, etc.

[0018] It is essential that the attachment is strong enough because a platen will slide vertically inside of the box, as tight as possible, connected to an arms end in which other end relies a box that contains the different paying methods: credit card reader slots, contactless credit card readers, screens with alphanumeric keyboards, etc.

[0019] Consequently, the arm is hollow for the wires to go through with electrical power supply, data transmission, programming, telecommunications, and any other further application that may be required in the future. Therefore, the post is also hollow so that the wires do not wear down.

[0020] About the platen that slides inside the box, it has the goal of giving more stiffness to the arm so it must stay adjacent to the inside face of the box allowing the arm to be placed at different heights, with the purpose of making it adaptable for the customer, including those that because of being handicapped stand at a lower height than those who are not.

[0021] Thereupon, the platen will be pushed by any known method that, with the logical elasticity and shock absorbing, lets it move vertically and stay on a determined position while the customer is acting on it, including a toothed rail, springs, etc., all of this with the goal of helping the positioning.

[0022] This payment system is connected to the power supply system as well as to the central unit that is communicated with the outside via wi-fi, but in chase it has no wi-fi connection, as actual credit card payment systems do work, it will use a phone card or similar included in the payment system.

[0023] Regarding the hole located over an average person heights, done at the beginning, it is intended to contain an aromatic diffuser output corresponding to a nebulizer with a pulse drive tank, previously programmed at the central unit.

[0024] With its presence, spreading some scents and perfumes, we make sure the customer leaves with a grateful memory of this selling point and advertisement as well as stretching on his time at that place and, help him decide to buy the product.

Description of the images

[0025] To help the understanding of the nature of the invention, in the following images we represent a preferred embodiment, that might illustrate but never limit the invention.

[0026] Image 1 Back view of the rectangular box and two holding solutions: circular and flat.

- 1.- Rectangular box
- 2.- Screw input hole
- 3.- Groove
- 3'.- Circular holding solution groove
- 3".- Flat holding solution groove
- Image 2 Back view of the platen
- 4.- Platen
- 5.- Arm
- 6.- Wires
- 7.- Paying box or paying methods container box
- 8.- Credit card reader slot
- Image 3 View of the aromatic diffuser output
- 9.- Hole for the diffuser output
- 10.- Diffuser output
- 10'.- Diffuser pipe

Preferred embodiment of the invention

[0027] As the images 1 and 3 show, firstly we settle

down the groove (3' and 3") and the hole for the diffuser output (9) in the support, that might need a rubber seal to reduce the wires friction.

[0028] Next, we pull out from the inside of the support the wires (6) and the pipe (10'), that come out through the groove (3' and 3") and the hole for the diffuser output (9).

[0029] On the edges of the groove (3' and 3") and the hole for the diffuser output (9) we will place rubber seals to prevent the wires to be cut in the first chase and to seal in the second one.

[0030] Now we have a rectangular box (1), open on his back, that has on his front a longitudinal groove (3) that must be aligned with the groove on the support (3' and 3"). On another hand, we might have or not two holes (2) in the center of the back, for the screws or rivets for the chase that attaching method used is not the welding. The edges of the smaller sides of the box might be concave to improve the way they adapt to the post.

[0031] When the attaching method chosen is using screws or rivets, the edges of the box (1) will have flexible contours for sealing and esthetic purposes.

[0032] A hollow arm (5) will hold on his most remote part of the box (1) attached to the support, a kind of box (7) that will contain the resources needed for the paying methods, a credit card slot (8) and a contactless paying method. To make this contactless supports stronger we protect them with a transparent tempered glass that enables the use of radio frequency for paying and, when shows an alphanumeric keyboard, entering pass, passwords, etc.

[0033] Equally inside this box (7) we can set up an independent communication system for data transmission if required or advised.

[0034] Through the arm's hole (5) the wires (6) come across with other wires for power supply, data transmission, wi-fi connection, security system and any other needed system.

[0035] On its other end, the arm has a grip system to hold the box (1) that can be placed at different heights, between the margins the grooves give, to be height adjustable. Without being limitative, we adopt a platen (4) system, with a hole inside that will concur with the arm's hole, when they get attached. The wire (6) will pass across this hole.

[0036] This platen (4) should move tightly, in a vertical way, through the inside of the box (1) meanwhile is pressed down to the inner face of the box, in such way that it stands still when the customer locates it at his wished height. To do so, any system can be included, that adding some elasticity and flexibility, allow the combination of movement and positioning. One possible solution might be using a toothed rail for the positioning of the arm (5).

[0037] Over the box, positioned over the customer's head, the support has a hole (9) where we set the diffuser output (10) of a nebulizer that using a pipe (10') is connected to a tank of scents or perfumes scientifically stud-

ied to have an impact on the customers buying preferences. The diffusor system is controlled via pulse drive determined by an intelligence located at de control unit in the box (7) or any other control unit of the support.

Claims

1. Improved public light posts and outdoor advertisement with a paying system and scent marketing differentiated by being formed by a paying module with a credit card reader and a radio frequency identification system, adaptable for the new technologies to come, an aromatic diffusor for scent marketing actuated by pulse drive ruled by a central unit, all supported on an arm attached to a platen that moves tightly and vertically through a groove located in the back side of a rectangular box, attached to a post light, outdoor advertisement element, locker or storefront.
2. Improved public light posts and outdoor advertisement with a paying system and scent marketing differentiated by the first claim, because the rectangular box is attached to the support by his back side with a concave coupling system for cylindrical supports and helped by a flexible protection seal, if the attachment is done with screws or rivets, it will be done through the corresponding holes.
3. Improved public light posts and outdoor advertisement with a paying system and scent marketing differentiated by the first and second claims, because the box's groove is symmetrically aligned with the previously made support's groove where the power supply, data transfer, connection, security and any other needed wires stand out, through a hole in the center of a platen, that moves vertically adjusted to the inner part of the rectangular box, with controlled friction or hold on a toothed rail, so that we can position it at any place on the groove.
4. Improved public light posts and outdoor advertisement with a paying system and scent marketing differentiated by the first and third claims, because the platen is attached to a hollow arm, in which both holes concur in order to allow the wires to pass through, so that both, the arm and the platen move mutually on the groove, moving this way the box attached on the other end of the arm where the wires reach for connecting all the elements: electrical, data, telecommunication, reading, all of this protected by a transparent tempered glass that enables the identification via radio frequency or by introducing the data manually when the screen shown an alphanumeric keyboard, and also an unprotected card credit reader.

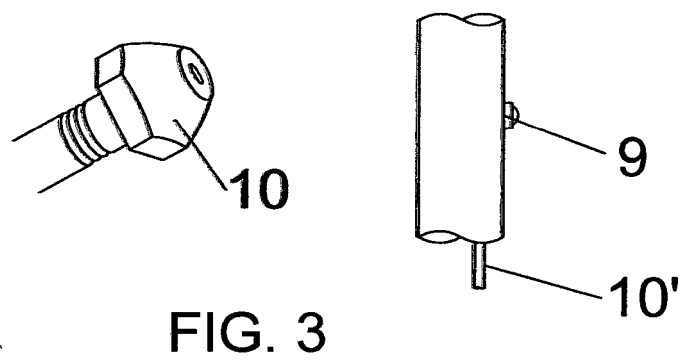
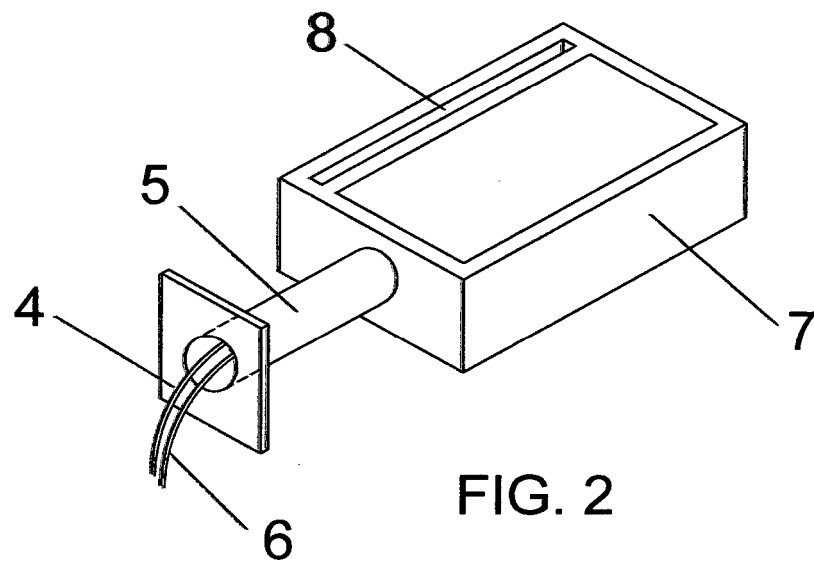
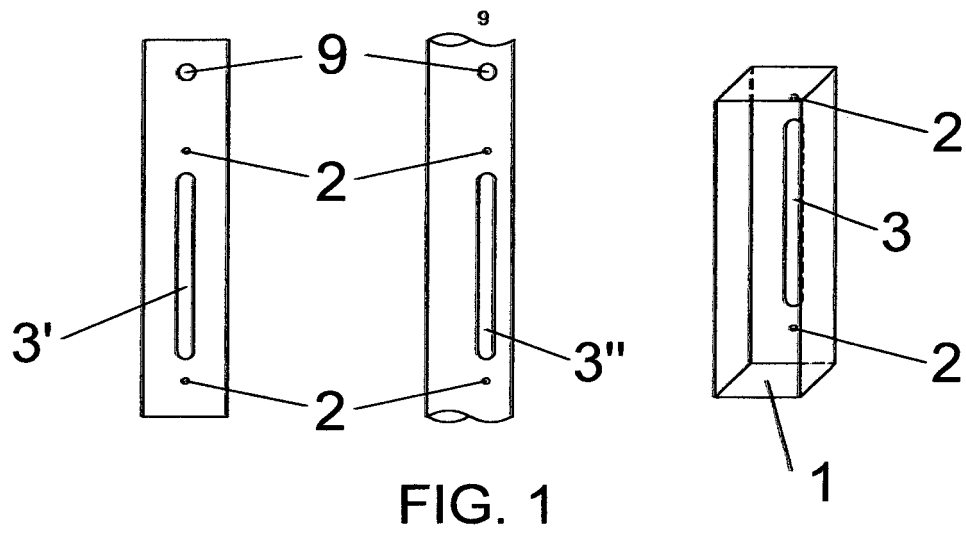
5. Improved public light posts and outdoor advertisement with a paying system and scent marketing differentiated by the first claim, for having a perfume tank scientifically oriented for scent marketing that through a pipe is connected to a diffusor locate on the support, on a height over an average user's height, and controlled by pulse drive ruled by a central unit located inside the box where the payment methods are.
6. Improved public light posts and outdoor advertisement with a paying system and scent marketing differentiated by the third and fifth claims, because the edges of the groove and hole on the support, have a flexible protection to prevent cuts.
7. Improved public light posts and outdoor advertisement with a paying system and scent marketing differentiated by the first and fourth claims, because the systems allow the presence of several payment boxes and diffusors.
8. Improved public light posts and outdoor advertisement with a paying system and scent marketing differentiated by the previous claims, because the whole is made of antivandal materials.

Amended claims in accordance with Rule 137(2) EPC.

1. An improved payment processor unit that can be attached or inserted on any kind of electric poles, light poles, bus shelters, electric car charging stations, etc., **characterized in that** it comprises a scent diffuser, a conventional card reader or any kind of advanced reading system and a central unit to regulate these functions, all inside a support (1) composed of a box (7) with an arm (5), and a metallic platen (4) that tightly slides up and down inside the unit along the groove (3), being this rectangular box open on the back side fixed to the electric pole, light pole, bus shelter, electric car charging station, billboard, store window or ticket window.
2. An improved payment processor unit that can be attached or inserted on any kind of electric poles, light poles, bus shelters, electric car charging stations, etc., **characterized in that** according to claim 1 as the rectangular box (1) is attached to the support on its opened back side offering a concavity that adapts to the form of the pole and a flexible rubber that seals the unit (1) to the pole to protect it from the elements or any foreign body.
3. An improved payment processor unit that can be attached or inserted on any kind of electric poles, light poles, bus shelters, electric car charging stations,

etc., **characterized in that** according to claim 1 and claim 2 the unit's groove faces the support's groove previously carved to allow sliding the unit's wires for data, power, security, or any other that might be needed so the will go through the platen's (4) hole that runs vertically and tightened along the inner side of the groove (3) in a way that allows to fix the desired position anywhere along the groove.

4. An improved payment processor unit that can be attached or inserted on any kind of electric poles, light poles, bus shelters, electric car charging stations, etc., **characterized in that** according to claim 1 and claim 3 wires run through a hollow arm (5) born at the platen (4) and connected to the paying box (7) where the different components are located as power, data, communications, reading sensors, etc., all protected by a high transparent tempered glass screen which enables touch data or radio frequency, as well as an unprotected area in such box (7) for a conventional card reading slot (8).
5. An improved payment processor unit that can be attached or inserted on any kind of electric poles, light poles, bus shelters, electric car charging stations, etc., **characterized in that** according to claim 1 as it contains a perfume tank with scents scientifically designed to stimulate the user's consumption connected to a diffuser installed over the user's height on the light pole, bus shelter, electric car charging station, billboard, store window or ticket window activated by pulses controlled through a central unit laid out inside the paying box (7).
6. An improved payment processor unit that can be attached or inserted on any kind of electric poles, light poles, bus shelters, electric car charging stations, etc., **characterized in that** according to claim 3 and 5, as the groove's edges are protected by a safety flexible rubber to prevent user's cuts and the entry of dust.
7. An improved payment processor unit that can be attached or inserted on any kind of electric poles, light poles, bus shelters, electric car charging stations, etc., **characterized in that** according to claim 1 and 4 as the system allows connecting several paying boxes (7) and diffusers through a sim card or any other communication device.
8. An improved payment processor unit that can be attached or inserted on any kind of electric poles, light poles, bus shelters, electric car charging stations, etc., **characterized in that** according to all the previous claims as all the used materials are thugs-proof.





EUROPEAN SEARCH REPORT

Application Number
EP 16 38 2460

5

10

15

20

25

30

35

40

45

50

55

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	US 2007/058144 A1 (OLSEN GORDON [US] ET AL) 15 March 2007 (2007-03-15) * paragraphs [0052], [0057] - [0062] * * figures 1-4 *	1-8	INV. G09F7/18 G09F27/00 G09F15/00
A	EP 1 227 457 A2 (TECUS PLASTICOS S L [ES]) 31 July 2002 (2002-07-31) * paragraph [0010] * * figures 1,2 *	1-8	
A	US 2003/029918 A1 (LEANHEART STEPHEN J [US] ET AL) 13 February 2003 (2003-02-13) * paragraphs [0024], [0028], [0033] * * figures 1,2,6 *	1-8	
A	CN 201 556 367 U (HONGGUANG ZHENG) 18 August 2010 (2010-08-18) * abstract * * figure 1 *	1-8	
A	EP 3 070 703 A1 (SADABA FERNANDEZ JUAN [ES]) 21 September 2016 (2016-09-21) * paragraphs [0011] - [0016] * * figure 3 *	1-8	TECHNICAL FIELDS SEARCHED (IPC) G09F F21S
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 28 June 2017	Examiner Lechanteux, Alice
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	

 1
EPO FORM 1503 03.02 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 16 38 2460

5

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
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

28-06-2017

10

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2007058144 A1	15-03-2007	NONE	
EP 1227457 A2	31-07-2002	AT 310297 T	15-12-2005
		DE 60207314 D1	22-12-2005
		DE 60207314 T2	03-08-2006
		EP 1227457 A2	31-07-2002
		ES 1048196 U	01-07-2001
		US 2002096610 A1	25-07-2002
US 2003029918 A1	13-02-2003	NONE	
CN 201556367 U	18-08-2010	NONE	
EP 3070703 A1	21-09-2016	EP 3070703 A1	21-09-2016
		US 2016284252 A1	29-09-2016
		WO 2015071506 A1	21-05-2015

15

20

25

30

35

40

45

50

55

EPO FORM P0459

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

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- WO 201530798 A [0003]
- EP 16382325 A [0003] [0013] [0014]
- WO 201530798 U [0014]