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(54) MULTIFUNCTIONAL STREET LIGHTING POST

(57) Post multifunctional streetlights, made from a longitudinal hollow body (4) posing in half end to secure it to the ground (1) and a hollow rectangular frame (5) that houses a unit with the electronics necessary to operate two monitors emission displays images (6), receiving and sending signals via a transceiver antenna, the sound output, the functionality of an IP camera and activating a light emitter, and a luminaire.

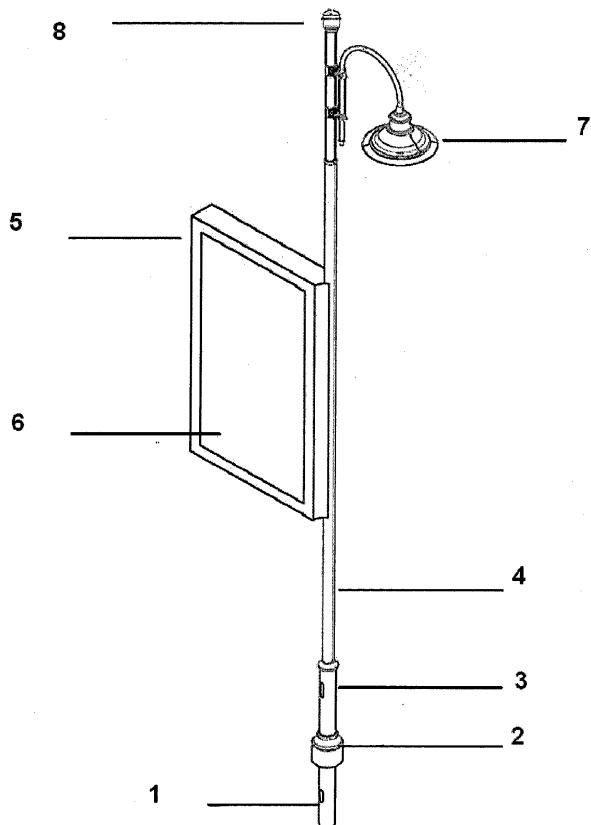


FIG. 1

Description**OBJECT OF THE INVENTION**

[0001] The present invention according to it is expressed in the title of this specification, It refers to a utility post, commonly used to support lightings, capable of performing multiple functions in the public space or urban road that incorporates information elements in the shape of screens and a transceiver that provides input and output data, managing a network communications which provides information services, advertising, surveillance, alerts, etc.

PRECEDENTS OF THE INVENTION

[0002] In recent years is more and more the set of elements which belong street furniture that as well as they achieve a practical purpose, they expect to carry out a second task such as completely advertising or as support for institutional information...

[0003] These public elements are necessary to add them private that they try to attract to themselves pedestrian who they are circulating in their areas of influence.

[0004] There is no doubt that municipalities, through their areas of Urbanism try controlling and regulating the disposition of these elements with the drawback that they add to existing ones, they require work, they consume more resources in maintenance, they visually pollute the urban landscape, they generate a cumulation in ones commercial areas, etc.

[0005] On the other hand there is a tendency to use a type of furniture for advertising support: the streetlights. Above them they constantly have got posters that they are visually unattractive, they require expensive labor costs and they cause troubles to the circulation when you install them and you uninstall them, they produce a cost very high in comparison with the short time that they live, they are not reusable because previously they must be recycled if they are valid for it, and definitely a product obsolete which it renounces to disappear, maybe because there is not an alternative more appropriated current times.

[0006] But surely one of the major failures of street furniture is that they not contributes effectively to disseminate messages, alerts, warnings, etc., which surely it would have to be its main purpose if it were not for the strong need of maintenance if you look it as an advertising format and not as a vehicle for information to citizens.

[0007] Therefore the invention here praised is going to provide a set of solutions that

They will allow to walk hand in hand the information function due to citizens with the pay support, get them a profitability so that they be them self - sufficient, avoid set of troubles that updating some signage on lampposts and shelter roofs can make them: emit warnings, alarms or any citizen information alternately with advertising messages and other benefits to the community as the possi-

ble elimination of advertising elements which they disturb the passersby, increase control and collection of static advertising on public roads, achieve any urban space with minimum cost, etc.

DESCRIPTION OF THE INVENTION

[0008] The present invention refers to a post of public lighting which has got two monitor screens (updated to the last technology of the time) which they are housed in a rectangular metal frame made expressly for them.

[0009] This framework is fixed to the post by solder, with the only condition that the inside of the post, and through a hole, connects with individual cables that supply electric current and data to screens. Likewise, the framework is prepared in order to the screens would be fitted inside and behind a transparent safety film that it is fitted by metallic edges with a metal closure that it prevents ingress of water, dust, etc.

[0010] The rectangular frame is arranged vertically so that it does not only occupy less space between the post and the adjacent building if not that, as a measure of safety, offers the least wind resistance and their effects on certain adverse circumstances that could break the post and cause an accident on the road public.

[0011] The frame with its screens is placed at a height sufficient safety for avoid inconvenience to pedestrians and to protect it from vandalism more evident as hanging on it or beating it with objects taken by hands.

[0012] In any version at the top it will be installed the luminaire, reserving the superior edge for install an internally hollow part in which you can find the transceiver antenna which it is capable of transmitting and receiving digital signals, and a video surveillance camera and a light emitter that works as emergency visual warning, alert, etc., not necessarily in combination with the color of the hollow piece that crown the post considering that its own light would be emitted using showy colours.

[0013] The hollow part may take any form prevailing those one that it provides a best result to the combination of the features described, keeping in mind that for visible light emitted it could be translucent.

[0014] The camera will have to provide images of the environment for public safety as well as to support traffic regulation or any other citizen service that it to be necessary to get information at the moment.

[0015] The central unit will be installed inside the frame leaving a physical access manual point for cases where it would not be possible to access the system using wireless.

[0016] Finally, the frame has got a plurality of small holes in the bottom by which the sound that it is released emitted by a player installed inside that zone.

[0017] The base and the way of how to install the post

will be compatible with any of the systems that they are more convenient as far at the present and in the future.

DESCRIPTION OF DRAWINGS

[0018] To complete the present description and in order to aid a better compression of the characteristics of the invention proposed, according to a priority example of a practical execution of itself, as an integral part of this specification we have attached the following figure, in which, with a purely illustrative and never restrictively purpose, we have represented the following:

Figure 1 is an oblique top view in which we essentially show:

1. Support under baseplate
2. Seat plate
3. thickened portion
4. post
5. framework
6. screens
7. arm and luminaire
8. hollow crown piece that holds the antenna, camera and light

Description of a preferent way of execution

[0019] As you can see in Figure 1, the present invention is constituted from a longitudinal body in the shape of a post called post, circular or not, that

it is characterized at their base because it has got a thickened portion (3) as a reinforcement and an increased stability over the support (1) on plate (2) that can accommodate the battery, give input to power cabling when there aren't batteries, etc.

[0020] The post (4), in its upper-middle zone, it presents joined by welding and by a one of its big sides a rectangular frame (5), which communicates internally with the post (4) which receives electrical power cables and data through an orifice made expressly for this purpose. The current reaches the light side and the other screens and the central unit with the rest of system components which they are connected to the central unit, including the parts which they are housed in the hollow end piece (8), at the upper end the post (4).

[0021] The frame (5) has the necessary means for fixing two monitor screens (6) of emission located behind transparent sheets that serve as protection and that fit the inside edge of the frame (5) with joints that completely prevent the entry of water, dust, etc.

[0022] On the underside of the frame (5) we are made a plurality of small holes in order to let release the sound of an inside player installed in the area perforated. Also it is practiced a cut on that side in order to install, of a fitted and protected way by a dust cover, a manual connection to access the central unit in order to program it

manually when it can not be through wireless network.

[0023] The upper area is covered by the luminaire (7) and by a hollow part (8) fitted and adjusted through the upper end closing it, from cables which they connect the CPU with the devices installed inside the part: the transceiver antenna, a camera and a light emitter.

10 Claims

1. Multifunctional lighting **post, characterized by** the fact that it is constituted from a longitudinal hollow body (4) having in the ends means in order to fixing on the floor (1) and a hollow rectangular frame (5) housing a unit with the electronics necessary to operate two monitor emission image screens (6) receiving and sending signals via a transceiver antenna, issuing sound, the functionality of an IP camera and activation of a light emitter plus a luminaire.
2. Multifunctional street lighting **post, characterized according to first claim, because the post (4) has at its lower end an area slightly thickened (3) from the rest, as a reinforcement, which follows a piece of bigger diameter which we call diameter plate (2) representing the limit to where we sink the lower end of the support post or under plate (1) in order to fixing it on the floor coinciding with the electrical outlet.**
3. Multifunctional street lighting **post, characterized according to first claim, because the post presents, jointly by welding an empty frame (5) that puts up two fixed monitor screens by conventional means, compatibles with the different technologies current and future, protected by some transparent laminar parts adjusted to the inner edge of the frame and sealed to prevent the ingress of dust or water.**
4. Multifunctional street lighting **post, characterized according to first claim, because in the upper edge hollow of the post has engaged a workpiece (8) hollow too where they are arranged properly a transceiver antenna which it transmits and receives wireless signals, an IP camera or superior technology and a light emitter, being the external material of the hollow part (8) suitable for that non interfering; signals or light emissions.**
5. Post multifunctional **streetlights, characterized according to first claim, because the area of the post where frame is joint, It has a hole through which run cables leading electrical current to the system and communicate the central unit with the different electronic components.**

6. Multifunctional street lighting **post, characterized** according to first claim, because the underside of the frame has a small area where a plurality of holes allow the exit of the sound made by the player installed inside near from the holes. 5

7. Multifunctional street lighting **post, characterized** according to first claim, because the central logic unit allows you to programme the messages, warnings, images, etc., through the antenna in a single post as 10 by sectors, implementing on the underside, a physical auxiliary connection, practiced by a tight hole, to ensure manual programming in case of failure wireless, and protected by a dust cover. 15

8. Multifunctional street lighting **post, characterized** according to first claim, by having at the top who supports the arm of the luminaire. 20

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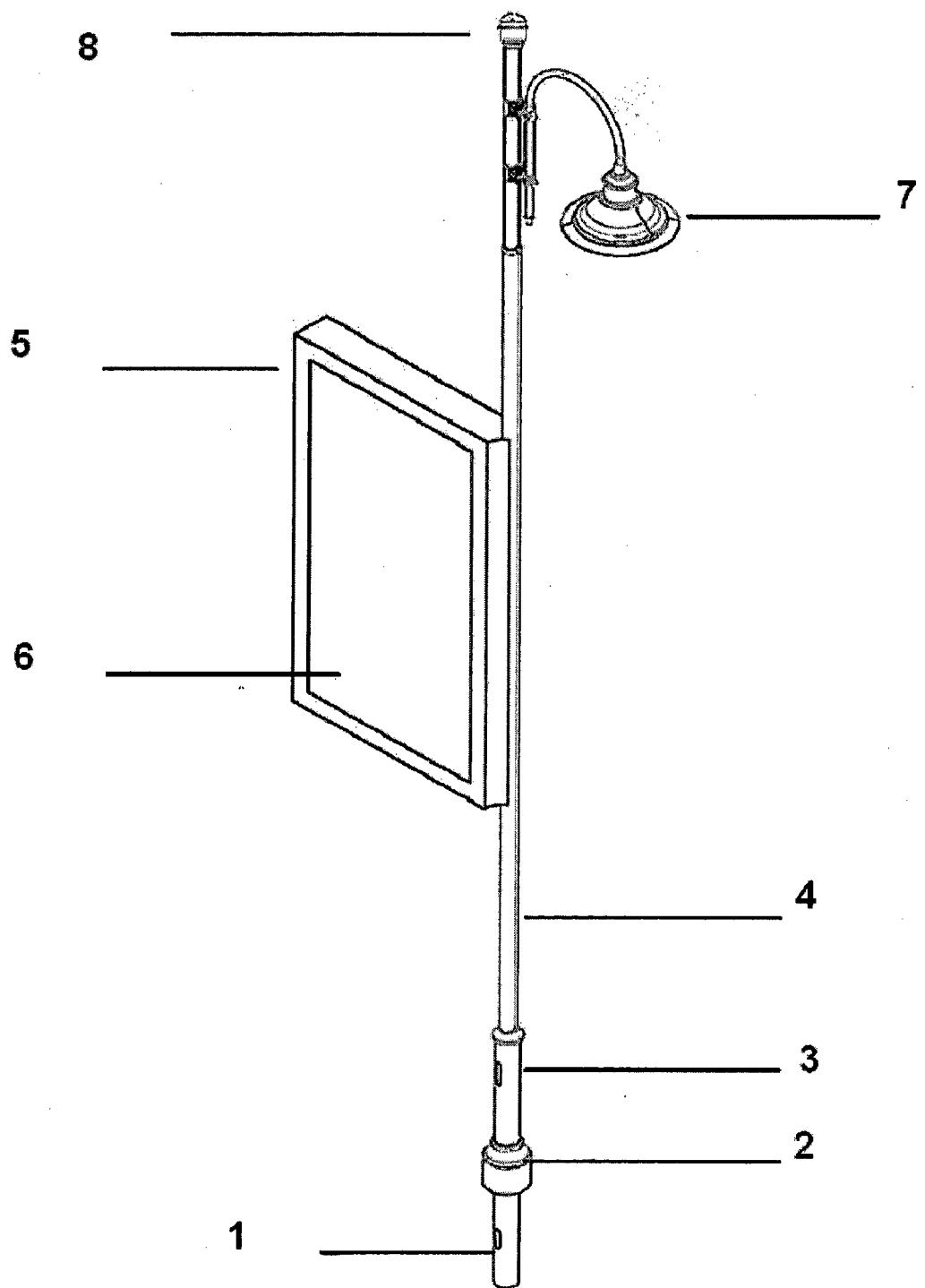


FIG. 1



EUROPEAN SEARCH REPORT

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30	X KR 2010 0001250 U ((GWAN-N) GWANGJU METROPOLITAN CITY) 3 February 2010 (2010-02-03) * abstract; figures 1,2 * -----	1-8	TECHNICAL FIELDS SEARCHED (IPC)
35			G09F F21S
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50	2 The present search report has been drawn up for all claims		
55	Place of search The Hague	Date of completion of the search 23 May 2018	Examiner Pantoja Conde, Ana
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			
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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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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.

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