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“IMPROVED LIGHT FITTING, FOR STREETLIGHTS”

This invention deals with a light fitting with a new structure, preferably used in streetlights for public or private outdoor lighting.

5 The use of light fittings, designed as closed areas made of transparent or translucent glass or other material, framed within bearing structures, generally made of cast iron and inside which there are light points, is as old as the actual knowledge of artificial light. But, although there are currently all kinds of light fittings, in principle each one is designed for a specific application, (to place on specific stands or streetlamps, to hang with arm, to hang without arm, etc.).

10 Currently, all the light fittings have the same problem regardless of their configuration, components, peculiarities and/or place of application: when it is necessary to access the interior to repair or replace internal components, one or several of their components have to be totally dismantled (at least a cover or access door although, generally, this “access door” is the actual shade/diffuser plate).

15 This limitation/problem becomes more pronounced if we bear in mind that these accesses to replace/repair always arise when the light fitting is operative (generally in difficult-to-reach places where the operator is also in complicated working conditions).

20 In the improved light fitting, according to the invention, the access to its interior to replace/repair internal components always takes place without dismantling/separating any component element from the light fitting. It is characterised because it is comprised of:

25 a) a fixed lower half-frame, which incorporates the transparent or translucent shade/diffuser plate, and has internal means to mount at least one light point, and external means to mount the assembly into the relative streetlight;

b) a mobile upper half-frame with means to be mounted in an articulated fashion in the lower half-frame with possibility of combined rotation and displacement with respect to it in order to adopt at least two opening/closing positions spatially outphased with each other and equipped with means to block both
30 half-frames in their closed position;



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both half-frames being permanently related to each other, so that access to the interior to replace/repair internal components takes place without dismounting any component element of the light fitting.

For a better understanding of the subject of this invention, a preferential form of practical execution is illustrated on the drawings, subject to
5 accessory changes that take nothing away from its basis.

Figure 1 illustrates a general schematic view in perspective of the improved light fitting, for streetlights according to the invention (prepared to be secured to a post, column or support), with all its main elements and/or integral parts
10 ready to be mounted.

Figure 2 illustrates, in detail, a general section of the light fitting according to the invention, in closed position.

Figure 3 illustrates a front view corresponding to figure 2.

Figure 4 schematically illustrates in two phases the light fitting in
15 open position -figure 4a- and in closed position -figure 4b-.

Below an example of a non-limiting practical execution is described of this invention.

In accordance with the invention, and according to the execution illustrated, the improved light fitting for streetlights advocated presents a peculiar
20 construction integrated by:

- a fixed half-frame (1)
- a mobile half-frame (2)
- external means (3) to mount the assembly in the relative streetlamp
- internal means (4) to mount at least one light point
- 25 - means (5) to mount the fixed (1) and mobile (2) half-frames together in an articulated fashion
- means (6) to lock together the fixed (1) and mobile (2) half-frames in their operative closing position.

The fixed half-frame (1) incorporates in a main body (1) at least the
30 shade/diffuser plate (11) placed in a combined cavity (11a); a protuberance (61) -

which forms part of the locking means (6) described below-; conformations (12) to place the means (3) –in the way described below-; conformations (13) to mount a part/support (41) –which forms part of the internal means (4) described below.

5 The mobile half-frame (2) incorporates, in its single-part body, a window (62) –which forms part of the blocking means (6)-.

The external means (3) to mount the assembly in the relative streetlamps are comprised of a bushing (31) –which fits tightly, due to its axial recessing (32), into the streetlamp, which it is secured to with additional means (35)-; with articulated head (32) by means of set of pin/nut (33) in the main body (10) of the
10 fixed half-frame (1) with placing of a support (34).

The internal means (4) to mount light points are comprised, apart from the aforementioned part-support (41), of a multi-part lamp-holder bushing (42), correlated to which a shade/diffuser base (43) is coaxially secured.

The means (5) to mount the half-frames together in an articulated
15 fashion, (2) are comprised of connecting rods (51), articulated in (51a) to the fixed half-frame (1) and in (51b) to the mobile half-frame (2) combined with which they determine an articulated quadrilateral.

The means (6) to block the half-frames (1) (2) together, in their closed position are comprised, apart from the aforementioned protuberance (61) and
20 window (62), a key/catch (63), which being screwed or screwing a screw (63a) into the protuberance (61) acts as a stop in the contour of this window (62).

CLAIMS

1.- Improved light fitting for streetlamps, characterised because it is comprised of:

5 a) a fixed lower half-frame, which incorporates the transparent or translucent shade/diffuser plate, and has internal means to mount at least one light point and external means to mount the assembly in the relative streetlamp;

b) a mobile upper half-frame with means to be mounted in an articulated fashion in the lower half-frame with the possibility of combined displacement and movement respect to the latter in order to adopt at least two opening/closing positions, spatially outphased with each other and equipped with means to block together both half-frames in their closed position;

both half-frames being permanently related to each other, so that access to the inside to replace/repair internal components takes place without dismounting any component element from the light fitting.

15 2.- Improved light fittings, for streetlamps, according to previous claim, characterised because the aforementioned internal means to mount light point(s) are comprised of a part(s)/support joined to the fixed half-frame in a dismountable way, and which have a lamp-holder bushing mounted orthogonally in correlation with which a shade/diffuser base is coaxially secured.

20 3.- Improved light fitting, for streetlamps, according to previous claims, characterised because the aforementioned external means to mount the assembly in the streetlamp are comprised of prolonged bushing(s) from the fixed half-frame where they are mounted in an articulated fashion, and can be fitted tightly in combined prolongation(s) of the actual streetlamp.

25 4.- Improved light fitting, for streetlights, according to previous claims, characterised because the aforementioned means for assembly between fixed and mobile half-frames are comprised of at least one set of connecting rods, with their ends articulated to them so that they define, combined with them, an articulated quadrilateral, where the mobile half-frame reaches two extreme positions (outphased/open and superimposed/closed) with respect to the fixed half-frame.

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5.- Improved light fitting, for streetlights, according to previous claims, characterised because the aforementioned means to block both half-frames together in their fitted closed position are comprised, in the fixed half-frame, of an emerging threaded protuberance and in the mobile half-frame of a positionally
5 combined window, the blockage being made with key/catch, which, screwed into the protuberance, acts as a stop against the contour of this window.