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(54) Luminaire, particularly for roads or outdoor environments in general

(57) A luminaire, particularly for roads or outdoor environments in general, comprising a supporting element (2) and a lighting element (3); the supporting element (2) has an at least partially hollow body in which there is a compartment (4) that accommodates the lighting element (3) and an opening (5) for projecting externally the light emitted by the lighting element (3).

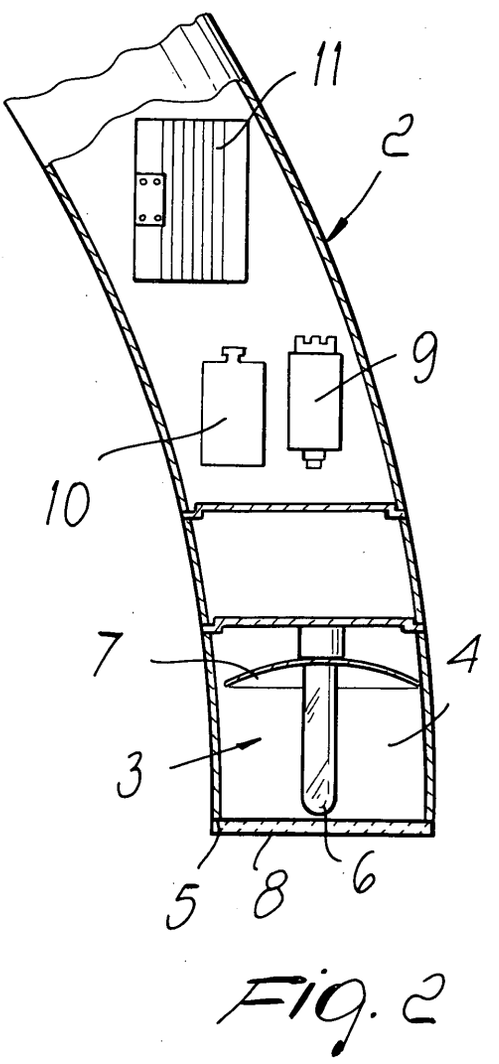

Fig. 2

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Description

[0001] The present invention relates to a luminaire, particularly for roads or outdoor environments in general.

[0002] It is known that luminaires, particularly for roads or outdoor environments, are generally constituted by a supporting element, which in its simplest embodiment is constituted by a pole, and by a lighting element, which is supported by the supporting element and is substantially constituted by a reflector and a light source, both of which are optionally arranged within a protective enclosure.

[0003] In some cases, the lighting element can be supported by an arm, which in turn is supported by the pole, or can be fixed to a wall, for example as occurs in luminaires designed to be installed in built-up areas, in which the arm is fixed directly to a wall.

[0004] In any case, the lighting element, intended as the assembly constituted by the light source and the reflector, optionally protected with an enclosure that is at least partially transparent in order to allow to project light externally, is separate from the element that supports it and is associated therewith by way of connection devices, such as for example bolts or others.

[0005] This conventional structure of the luminaire, in addition to requiring on-site assembly of the luminaire in order to associate the lighting element with the supporting element, is a constraint as regards the overall aesthetic styling of the luminaire.

[0006] The aim of the present invention is to provide a luminaire, particularly for roads or outdoor environments in general, whose structure allows it to vary from the conventional structural features of known luminaires.

[0007] Within this aim, an object of the invention is to provide a luminaire which thanks to its particular structure allows greater freedom in designing its styling.

[0008] Another object of the invention is to provide a luminaire that is simple and quick to install.

[0009] This aim and these and other objects that will become better apparent hereinafter are achieved by a luminaire, particularly for roads or outdoor environments in general, comprising a supporting element and a lighting element, characterized in that said supporting element has an at least partially hollow body in which there is a compartment that accommodates said lighting element and an opening for projecting externally the light emitted by said lighting element.

[0010] Further characteristics and advantages will become better apparent from the detailed description of a luminaire according to the invention, illustrated only by way of non-limitative example in the accompanying drawings, wherein:

Figure 1 is a side elevation view of the luminaire according to the invention;

Figure 2 is an enlarged-scale sectional view of the luminaire according to the invention;

Figure 3 is a view of a luminaire according to the invention with a plurality of lighting elements.

[0011] With reference to Figures 1 and 2, the luminaire according to the invention, generally designated by the reference numeral 1, comprises a supporting element 2 and a lighting element 3.

[0012] The supporting element 2 has a body that is at least partially hollow, and a compartment 4 is formed therein which accommodates the lighting element 3 and is provided with an opening 5 for projecting externally the light emitted by the lighting element.

[0013] In practice, in the luminaire according to the invention the lighting element 3 is not physically separate from the supporting element 2, as instead usually occurs in luminaires of the conventional type, but is integrated therein, since it is arranged inside the supporting element 2 itself.

[0014] Preferably, the supporting element 2 is constituted by a pole that rises vertically and is hollow internally, and the compartment 4 is formed proximate to the top end of the pole.

[0015] Conveniently, the pole rises vertically and has an arc-like top end portion in which the free end is directed downwardly and the opening 5 is formed at said free end.

[0016] The lighting element 3 comprises a light source 6, which is constituted by one or more lamps, with a reflector 7 that is arranged behind the light source 6 and faces the opening 5.

[0017] The opening 5 is conveniently closed by a transparent plate 8 so as to protect adequately the elements of the luminaire that are accommodated in the compartment 4.

[0018] The wiring and the power supply devices of the light source 6, such as for example a starter 9, a capacitor 10 and a ballast 11, of a per se known type and shown only schematically for the sake of simplicity, can be easily accommodated inside the pole.

[0019] The supporting element 2 can be simply constituted by a pole, as shown in Figure 1, which is driven directly into the ground with its lower end, or can comprise, as shown in Figure 3, a base element 12, which is driven into the ground and supports a plurality of poles of the type described above.

[0020] Depending on the number of poles to be supported and on their dimensions, the base element 12 can have variable dimensions; if it must support a rather large number of poles, it can assume the configuration of a platform.

[0021] The various poles that are supported by the base element 12 may have different shapes according to the requirements, although preference is given in particular, for road applications, to a configuration of the type described above, i.e., in which the top end portion is arc-like and its free end is directed downwardly, the opening 5 being formed at said end, the light produced

by the lighting element 3 arranged in the compartment 4 formed inside the pole being projected through said opening, so as to achieve a good lighting effect for the underlying area.

[0022] Due to the fact that the lighting element is contained in a compartment formed inside the supporting element, it is possible to achieve particular aesthetic effects that cannot be obtained with conventional luminaires.

[0023] From the described example it is evident that it is possible to obtain, by combining a very simple configuration of the supporting element 2 with the fact that there are no protruding parts that would interrupt the line of said supporting element 2, an effect of particular lightness and slenderness for the luminaire.

[0024] In the example shown in Figure 3, which derives from the combination of two poles, a particularly pleasant fountain-like effect is obtained. Furthermore, by composing a larger number of poles arranged around a vertical axis it is possible to obtain a lighting device that is particularly suitable for lighting flower beds, crossroads, squares, et cetera.

[0025] Moreover, it should be noted that the luminaire according to the invention is also particularly easy to transport and install. Since the lighting element 3 is accommodated inside the body of the supporting element 2, it can be preassembled and wired in the workshop and installed in an extremely short time.

[0026] In practice it has been found that the luminaire according to the invention fully achieves the intended aim, since thanks to its particular structure, with the lighting element integrated into the supporting element, in addition to differing, in terms of structural concept, from conventional luminaires it provides greater freedom in seeking new styles.

[0027] Although a configuration of the described and illustrated type is preferred for the supporting element, the styling of the luminaire can also be considerably different from the one shown, in view of the reduced constraints arising from the fact that the lighting element does not protrude from the body of the supporting element.

[0028] Another advantage of the luminaire according to the invention is that it can be extremely compact at the lighting element and can ensure better protection of the lighting element.

[0029] In practice, the materials used, as well as the dimensions, may be any according to requirements and to the state of the art.

[0030] The disclosures in Italian Utility Model Application No.MI2002U000167 from which this application claims priority are incorporated herein by reference.

[0031] Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

Claims

1. A luminaire, particularly for roads or outdoor environments in general, comprising a supporting element and a lighting element, **characterized in that** said supporting element has an at least partially hollow body in which there is a compartment that accommodates said lighting element and an opening for projecting externally the light emitted by said lighting element.

2. The luminaire according to claim 1, **characterized in that** said supporting element is constituted by a pole and **in that** said opening is formed proximate to the top end of said pole.

3. The luminaire according to claims 1 and 2, **characterized in that** said supporting element comprises a base element from which at least one pole protrudes, said opening being formed proximate to the top end of said at least one pole.

4. The luminaire according to one or more of the preceding claims, **characterized in that** said supporting element comprises a base element that supports a plurality of poles, each one of said poles being at least partially hollow and being provided with a compartment that accommodates a lighting element, each compartment being provided with an opening for projecting externally the light emitted by the corresponding lighting element.

5. The luminaire according to one or more of the preceding claims, **characterized in that** said pole rises vertically and has an arc-like top end portion in which the free end is directed downward, said opening being formed at said free end.

6. The luminaire according to one or more of the preceding claims, **characterized in that** said lighting element comprises a light source with a reflector that faces said opening.

7. The luminaire according to one or more of the preceding claims, **characterized in that** said opening is closed by a transparent plate.

8. The luminaire according to one or more of the preceding claims,
characterized in that the wiring and the power supply devices of said light source are arranged in said pole.

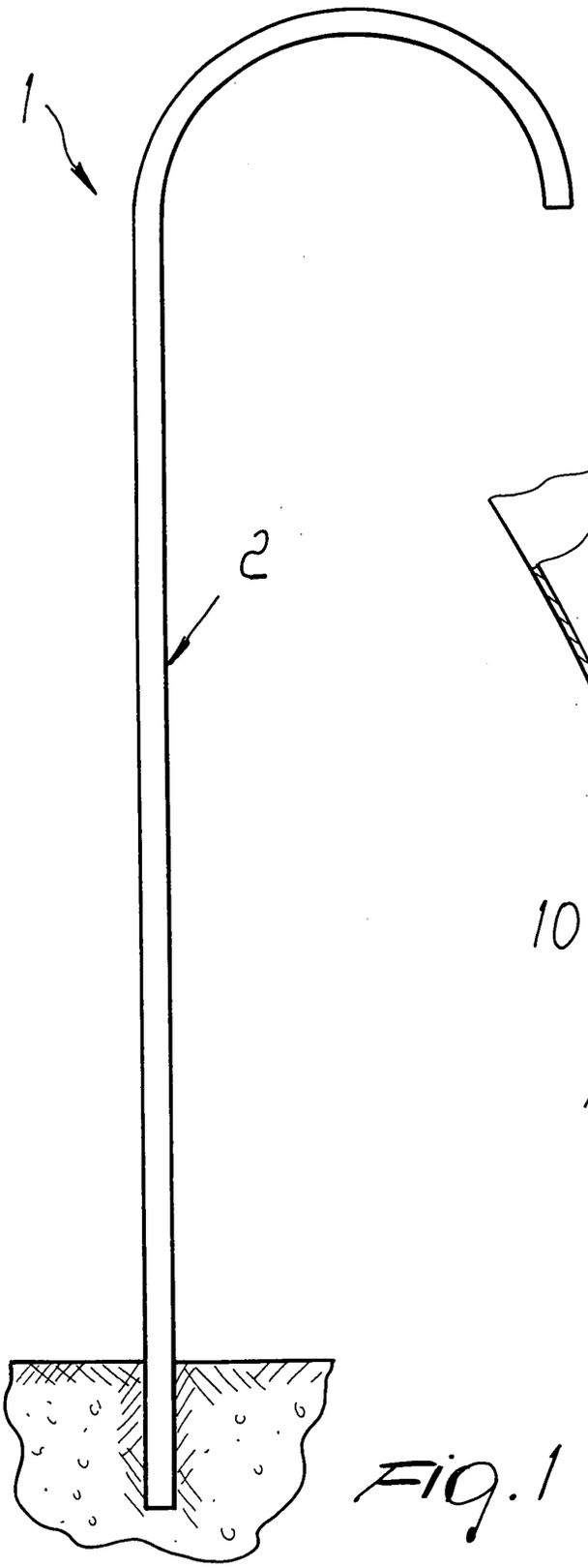

Fig. 1

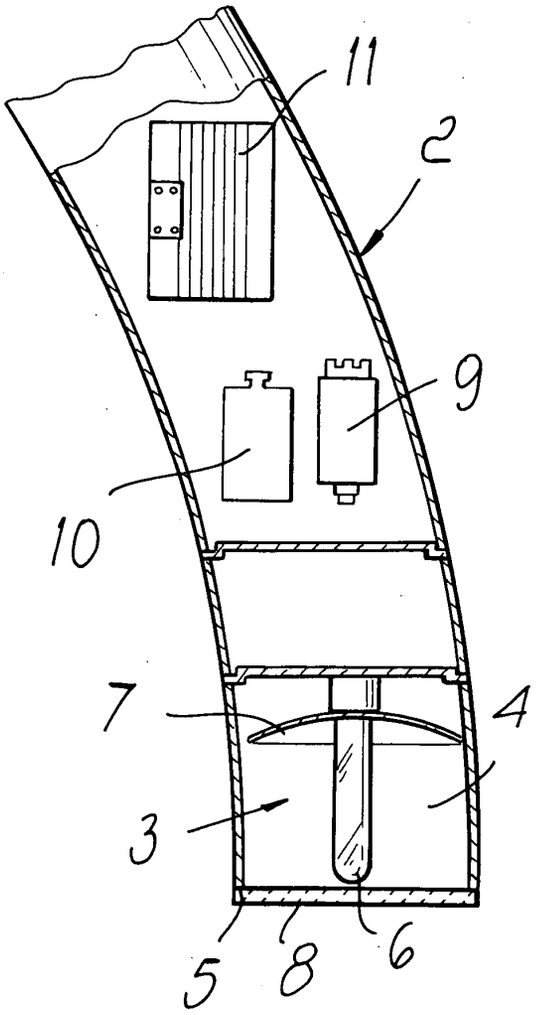

Fig. 2

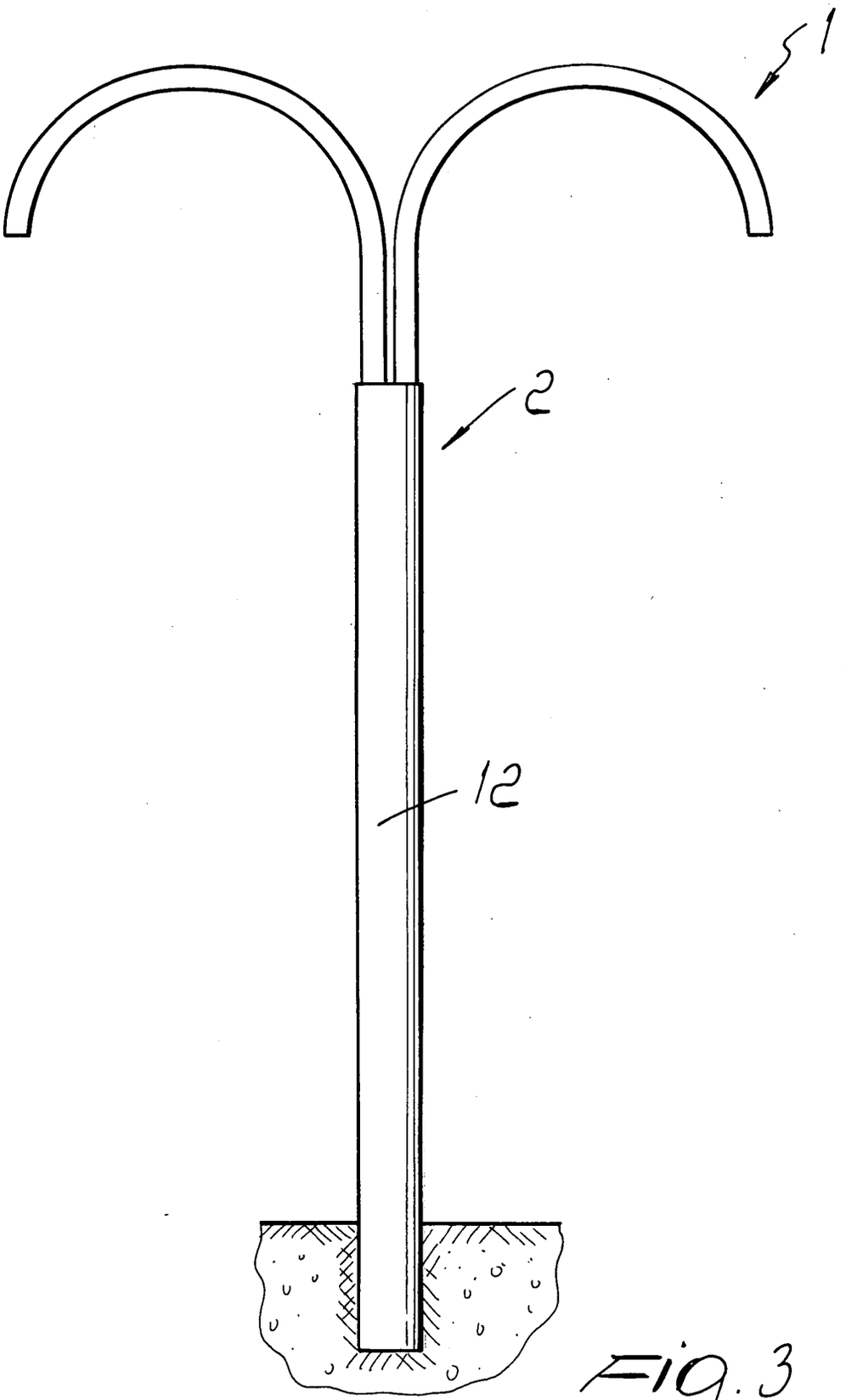

Fig. 3