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(54) **A support for devices for detecting unwanted intrusions**

(57) A tubular structure (1) in which to hold a plurality of anti-intrusion devices (6, 7, 8, 9) comprising a lining (15) in a material that is opaque to the eye but transparent to infrared rays, micro-wave and video filming in the field of infrared in order to completely hide the lined part .

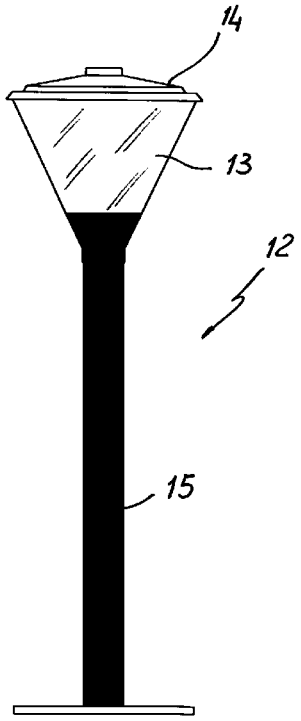

Fig. 2

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Description

[0001] The present invention concerns a support for devices for detecting unwanted intrusions, more especially it is a support in which to hold and hide devices for the detection of unwanted intrusions active systems such as, for example, transmitters, receivers, video-cameras or, in the case of passive systems, sensors of motion or movement. In the following description such - unwanted intrusions - will be termed simply - intrusions - and the - transmitters, receivers, video-cameras and sensors of motion and movement - will simply be called - anti-intrusion devices-.

[0002] Several systems for the detection of intrusions are known. Distinguishing between external and internal areas it is possible to make the following division.

[0003] For example, for the protection against intrusions of external areas in military enclosures, industrial areas, gardens of homes, museums, etc. the better known systems are:

- buried systems that by means of different methods detect intrusions by means of underground sensors;
- system called active microwave barriers or with infrared rays that include transmission and receiving devices lodged in at least two columns or pickets that are positioned in the open and aligned to one another to form a barrier that detects the unwanted intrusions;
- so called "motion detector" that, by means of video-cameras, generally set along the perimeter of an area to be protected, takes images, perceiving the colour variations, that are viewed on monitors by surveillance personnel and recorded.

[0004] For example, for protection against intrusions into banks, industrial sheds or warehouses, the best known system is altogether similar to the last one described and includes closed circuit micro-cameras that take shots of possible intrusions and actions by ill-doers that are viewed by surveillance operators and recorded.

[0005] The main drawbacks of the first system lie in the fact that it is very costly, also considering the civil works required for its installation and in the fact that it has limits, such as, for example, the fact that it is affected by disturbance due to the presence of underground infrastructures such as pipes, sewers and water drains, and by the presence of tree roots. The second system, though more economical than the first one, has the drawback of being immediately identifiable and hence easily avoided by ill-doers, in addition to being aesthetically displeasing. The main drawback of the third system in protecting external areas lies in the fact that it requires personnel to check that the colour changes were actually caused by an intrusion and not by accident. Another drawback arises from the high management costs connected to the presence of personnel assigned to its control.

[0006] The system for the protection of internal areas, in addition to featuring the drawbacks common to the "motion detector" system for external areas, presents the additional drawback that these micro-cameras can easily be identified and disabled by possible intruders.

[0007] The support for devices for detecting unwanted intrusions that is the object of the present invention obviates the above mentioned drawbacks and is a tubular structure, by which it is intended a hollow structure with a circular or prism section fully or partly open, suited to holding a plurality of anti-intrusion devices and, as characterised in the claims, comprises a lining material that is opaque to the eye but transparent to infrared rays, microwaves, and video-cameras filming in the field of infrared, said lining being made to totally hide the lined part, which means the entire tubular structure, the anti-intrusion devices contained within and the aperture, the latter being suited to the transmission and receiving of infrared rays, microwaves and video filming.

[0008] The advantages of the support invented are provided by the fact that the anti-intrusion devices are completely hidden, by its ease of installation and by the contained cost.

[0009] The invention is now described in detail by means of an example of embodiment and with reference to the attached drawings, in which:

Fig. 1 is a lateral view, and
Fig. 2 is a front view.

[0010] Figure 1 shows a pole 1 that contains anti-intrusion devices, with a circular section, and five apertures 2, a flange 3 with slits 4 for adjustable anchorage to the ground and a cover 5 that closes the upper end. Inside pole 1, starting from the upper end, and in correspondence with the apertures, a video camera 6, a first infrared ray transmitter 7, a receiver 8, a second receiver of infrared rays 9, and a power-unit 10 are respectively held. As shown in the example in figure 2, this pole 1 is completely lined by a sleeve, not visible in the figure, made of "DIAKRON TD 625" which is transparent to infrared rays, to microwaves, and to video filming in the field of infrared, and is opaque to the eye in order to hide the pole itself, its apertures and all that it contains within. The pole, so equipped and located in an open area to be protected, is associated with a plurality of poles (not shown in the figure) in order to form a network of anti-intrusion barriers in all the area.

[0011] In fact, the transmitters 7, 9 and receiver 8 of pole 1 are differently oriented in order to be aligned with corresponding receivers and transmitters each lodged on a different pole of said plurality in order to create the said network of active barriers that, if crossed, will

cause the local acoustic alarm the signal of which can also be sent, by means of radio waves, towards an appropriate surveillance centre that will activate the appropriate action.

[0012] It is understood that, according to requirements, the anti-intrusion devices of pole 1 can be conveniently aligned with the corresponding anti-intrusion devices lodged on another single pole.

[0013] The video-camera lodged in pole 1 will instead cause an optic-acoustic alarm also sent to an appropriate surveillance centre.

[0014] The number of video cameras used doesn't necessarily correspond to the number of poles used, but will be sufficient to cover the area to be protected.

[0015] The alignment of the transmitters and receivers takes place in a simple way thanks to the slits 4 in flange 3. In fact, these slits allow a rotation of the pole around its vertical axis before finally fixing it to a sunken fitting that is not shown in the figure.

[0016] Said fittings, flange and bottom end of the pole bear an appropriate aperture for the passage of the power cable 11 for the anti-intrusion devices contained within pole 1 that serves the purpose of connecting the same devices to the underground electric power main.

[0017] Lastly, the support for anti-intrusion devices may be alternately camouflaged as, for example, a support for vertical signals, or of dustbins for waste collection, or lamp-posts (see figure 2), in the case of external areas. In the case of internal premises instead, such as within banks, it can be camouflaged as the vertical support of benches and tables, as ashtrays, or it can be applied on walls as a form of decor.

[0018] Figure 2 shows a lamp-post 12 that comprises a protective shell 13 that bears a light-bulb inside, not visible, a cover 14 and a vertical support that is pole 1 of figure 1 enclosed by sleeve 15 made of "DIAKRON TD 625" that completely hides the contents. The light-bulb is connected, by means of non visible power cables, to the underground power main together with the main for the anti-intrusion devices contained in the vertical support.

Claims

1. A support (1) for devices for detecting unwanted intrusions comprising an open or partly open tubular structure in which to lodge a plurality of anti-intrusion devices as a video camera, a first infrared ray transmitter, a receiver of said infrared rays and a second infrared ray transmitter (6, 7, 8, 9) **characterised** in that it comprises a liner (15) that is opaque to the eye and transparent to infrared rays, microwaves, and video filming in the field of infrared, the liner being made to completely hiding the lined part.

2. A support (1) for devices for detecting unwanted intrusions according to the previous claim characterised in that it bears a lamp (13) at the top complete with a light-bulb and fitted with cables for the connection to the electric main.

3. A support (1) for devices for detecting unwanted intrusions according to claim 1 characterised in that it serves as a support for objects that are suited to the premises in which the support is used in order to be camouflaged.

4. A support (1) for devices for detecting unwanted intrusions according to claim 1 characterised in that it is camouflaged as a decor on the walls of the premises.

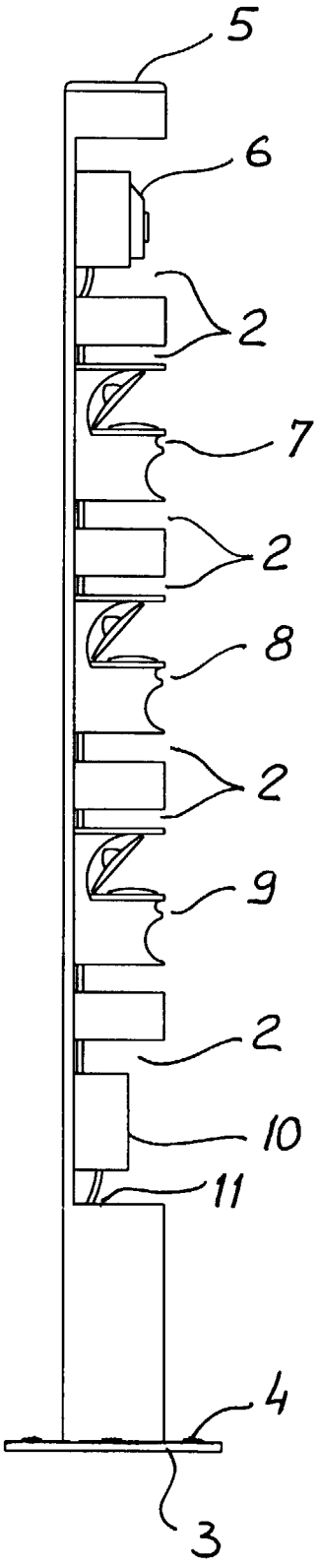

Fig. 1

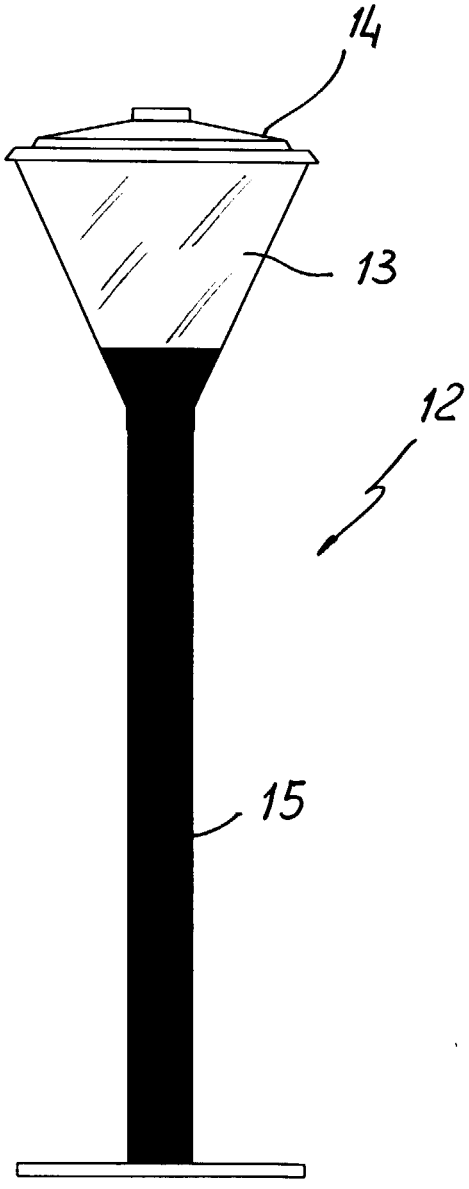

Fig. 2