~~A SAFETY MIRROR WITH A SOLAR POWERED LIGHT~~
A SHADE ARRANGEMENT FOR A MIRROR

TECHNICAL FIELD

[0001] The present invention relates to a safety mirror.

BACKGROUND

[0002] Safety mirrors are often positioned in an outdoor environment, especially around road junctions, road bends or road corners with an obstructed view due to trees, buildings, walls etc. The safety mirrors, when positioned correctly, allows the driver of a vehicle which is approaching the road junctions, road bends or road corners to observe an area as to whether there is an incoming vehicle, an approaching pedestrian or a dangerous object in the observed area, which without the safety mirror would be blocked from the view of the driver (i.e. blind spot). The placement of a safety mirror allows the driver to react accordingly.

[0003] With increasing population density in cities, the placements of safety mirrors is becoming increasingly important, as there are more and more intersections or crossings of pedestrian walkways and vehicle roads. Higher density would also mean obstructing buildings or walls around intersections or crossings, thus areas of obstructed views around intersections or crossings become common.

[0004] Further, safety mirrors are also positioned at junctions, bends or corners of pedestrian walkways. The placement of safety mirrors can reduce the risk of collision of pedestrians. Further, the mirror can allow an approaching pedestrian to check whether there is a potential risk around the corner, such as a robber or an attacker.

[0005] However, it is noted that safety mirrors do not function well at night time due to low light level, unless the environment is well-lit by street lights.

[0006] The invention offers an alternative safety mirror arrangement as a new and inventive safety mirror.

SUMMARY

[0007] According to a first aspect of the present invention, there is provided a mirror arrangement, including: a mirror; a solar panel for providing electricity; a light source for receiving the electricity to provide light to the mirror; and an energy storage unit for storing electricity provided by the solar panel,

CLAIMS

1. A ~~mirror~~ shade arrangement for a mirror for at least partially shielding the mirror from weather effect, the shade arrangement, including:

~~a mirror;~~

a solar panel for providing electricity having a first side for receiving electromagnetic radiation, and a second side;

a light source ~~for receiving the electricity to provide light to the mirror~~ attached to the second side of the solar panel for receiving the electricity to provide light to the mirror; and

an energy storage unit for storing electricity provided by the solar panel, and for providing electricity to the light source;

wherein at least a portion of the solar panel is flexible and is configured to follow a shape of a portion of the mirror.

~~2. The mirror arrangement of claim 1, wherein a periphery of the mirror is substantially circular, and the flexible portion of the solar panel forms a curve along a portion of the periphery.~~

~~3.~~2. The ~~mirror~~ shade arrangement of claim 1, wherein the light source ~~is~~ comprises a LED or a LED strip.

~~4.~~3. The shade arrangement of claim 1, further comprising a controller for controlling electricity from the solar panel to the energy storage unit, and from the energy storage unit to the light source. ~~The mirror arrangement of claim 1, wherein the light source is a LED strip.~~

~~5.~~4. The shade arrangement of claim 3, wherein the controller and the energy storage unit are located on the second side of the solar panel. ~~The mirror arrangement of claim 1, wherein the mirror is a convex mirror.~~

~~6. The mirror arrangement of claim 1, further including a mirror shade, wherein the solar panel is positioned on one side of the mirror shade and the light source is positioned on the other side of the mirror shade.~~

~~7. The mirror arrangement of claim 6, further including a controller for controlling electricity from the solar panel to the energy storage unit, and from the energy storage unit to the light source.~~

~~8.~~5. The ~~mirror~~shade arrangement of claim ~~7~~3, wherein the controller turns on the light source when the solar panel is not generating electricity.

~~9.~~6. The ~~mirror~~shade arrangement of claim 1, further including a mounting means for mounting the ~~mirror~~shade at an intended location.

~~10. The mirror arrangement of claim 9, wherein the mirror is mounted on a pole.~~

~~11. The mirror arrangement of claim 1, wherein the mirror is a safety mirror.~~

7. The shade arrangement of claim 1, further comprising a mirror shade having one side and a second side, wherein the solar panel is positioned on one side of the mirror shade and the light source is positioned on the other side of the mirror shade.

~~12.~~8. A ~~retrofitting~~ kit for retrofitting ~~a safety~~ to a shade of a mirror, the kit including:

a solar panel for providing electricity having a first side for receiving electromagnetic radiation, and a second side;

a light source attached to the second side of the solar panel for receiving the electricity to provide light to the mirror; and

an energy storage unit for storing electricity provided by the solar panel, and for providing electricity to the light source;

wherein at least a portion of the solar panel is flexible and is configured to follow a shape of a portion of the ~~safety~~ mirror.

~~13. The retrofitting kit of claim 12, further including a shade for at least partially shielding the safety mirror from weather effect.~~

~~14.~~9. The ~~retrofitting~~ kit of claim ~~12~~8, wherein the light source is a LED or a LED strip.

10. The kit of claim 8, further comprising a controller for controlling electricity from the solar panel to the energy storage unit, and from the energy storage unit to the light source.

11. The kit of claim 10, wherein the controller and the energy storage unit are located on the lower side of the solar panel.

12. The kit of claim 10, wherein the controller and the energy storage unit are attached to the second side of the solar panel.

13. The kit of claim 10, wherein the controller turns on the light source when the solar panel is not generating electricity.

14. The kit of claim 8, wherein the solar panel is adapted to be positioned on one side of the shade of the mirror and the light source is adapted to be positioned on another side of the shade of the mirror.

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ABSTRACT

A mirror arrangement, including: a mirror; a solar panel for providing electricity; a light source for receiving the electricity to provide light to the mirror; and an energy storage unit for storing electricity provided by the solar panel, and for providing electricity to the light source; wherein at least a portion of the solar panel is flexible and is configured to follow a shape of a portion of the mirror.

Figures 2A and 2B.