(12) UK Patent Application (19) GB (11) 2 278 584 (13) A

(43) Date of A Publication 07.12.1994

(21) Application No 9311654.9

(22) Date of Filing 05.06.1993

(51) INT CL[5]
B60R 1/12

(52) UK CL (Edition M)
B7J J69

(56) Documents Cited
GB 2211472 A GB 2161440 A GB 2080748 A
GB 1210061 A GB 0624823 A GB 0379576 A

(58) Field of Search
UK CL (Edition L) B7J
INT CL[5] B60R 1/12

(71) Applicant(s)
Tong Jih Chou
2nd Floor 24 Lane 244, Hsing Lung Road,Sec 2,
Taipei, Taiwan

(72) Inventor(s)
Tong Jih Chou

(74) Agent and/or Address for Service
Urquhart-Dykes & Lord
8th Floor, Tower House, Merrion Way, LEEDS,
LS2 8PA, United Kingdom

(54) Rear-view mirror with light producing means

(57) A rear-view mirror (10) including a light permeable lamp shade (13) covered on a back opening (12) of a casing (11) thereof, a lamp (15) fastened inside the casing (11) and controlled by a light regulating switch to give light toward the lamp shade (13), a series of light emitting diodes (19) fastened in respective holes on the casing (11) and controlled by the light regulating switch to give a visual flashing signal.

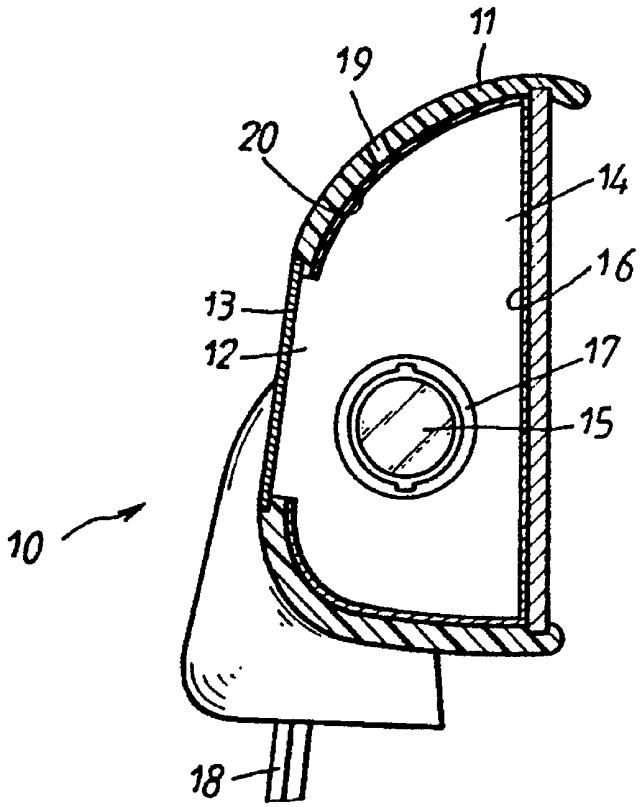

FIG.2

GB 2 278 584 A

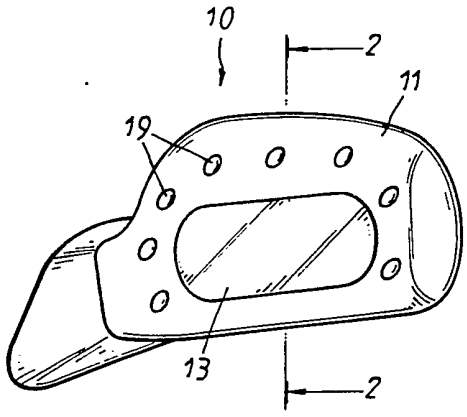

FIG.1

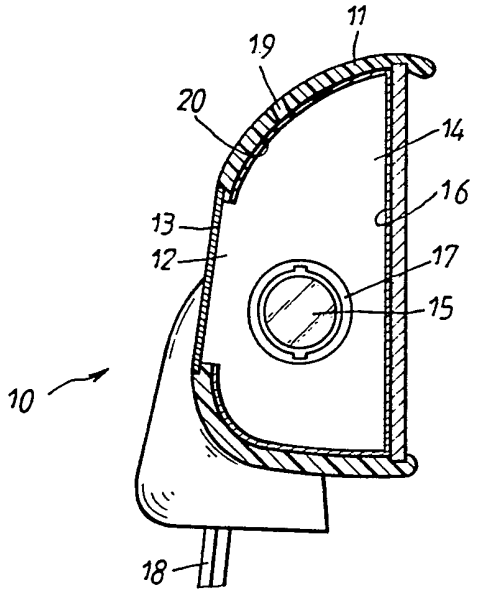

FIG.2

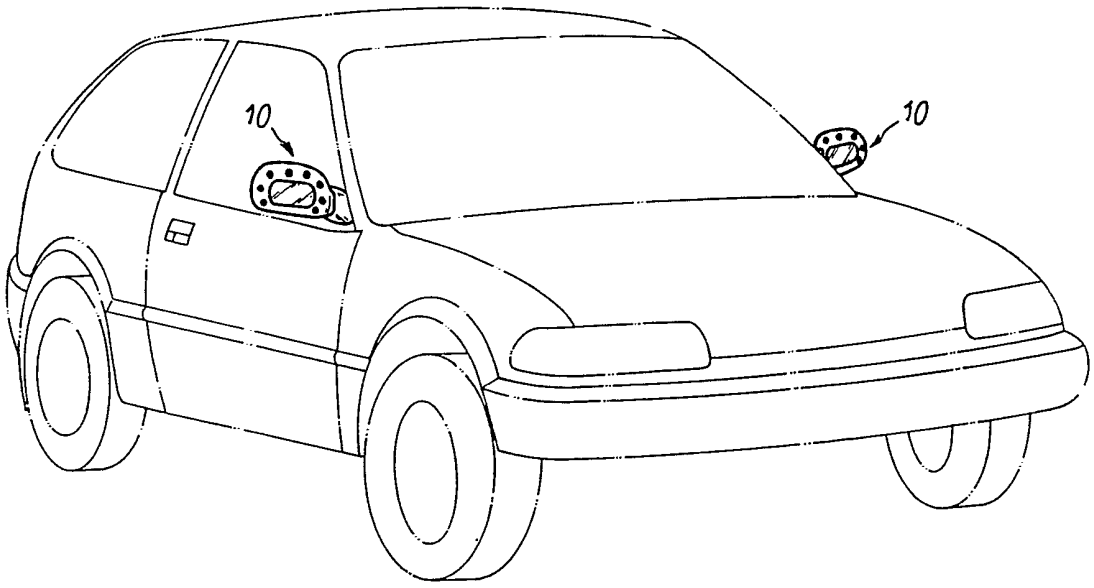

FIG. 3

REAR-VIEW MIRROR WITH LIGHT PRODUCING MEANS

BACKGROUND OF THE INVENTION

The present invention relates to rear-view mirrors and more particularly to a rear-view mirror which has a lamp fastened inside the housing thereof and controlled by a switch to give a visual signal.

A car is equipped with at least two rear-view mirrors for allowing the driver to see traffic approaching from behind. A variety of rear-view mirrors have been disclosed for this purpose. These rear-view mirrors may be collapsible, or position-adjustable by an electric control device. As the rear-view mirrors of a car are fastened on the outside, they may be covered with a mist. It the mirrors are covered with a mist, they must be cleaned immediately. The driver shall have to stop the car before cleaning the mirrors.

While driving a car in the night or during a foggy day, the head lamps and rear lamps of the car must be turned on to give light. As the distance between the two head lamps is much shorter than the distance between the two opposite rear-view mirrors, the light of the head lamps can not accurately show the maximum width

of the car, and therefore a traffic accident may happen easily when two cars are closely passing each other in reversed directions.

While driving a car through the area having the traffic signal of "NO HORN", the driver can not give any audio warning signal to the passers-by or the cars passing by, therefore the driver must try other methods to warn the passers-by or the drivers of the cars passing by.

SUMMARY OF THE INVENTION

The present invention has been accomplished under the aforesaid circumstances. It is therefore an object of the present invention to provide a rear-view mirror which has an internal light source controlled to give light for showing the position of the respective rear-view mirror in the night or during a dark or foggy day so as to prevent traffic accidents. It is another object of the present invention to provide a rear-view mirror which has an internal light source controlled to produce heat for evaporating the mist covered on the mirror thereof. It is still another object of the present invention to provide a rear-view mirror which has a series of light emitting diodes

controlled to flash one after another for giving a visual warning signal to the passers-by or the cars passing by.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will now be described by way of example with reference to the annexed drawings, in which:

Fig. 1 is a perspective view of a rear-view mirror according to the preferred embodiment of the present invention;

Fig. 2 is a sectional view taken on line 2-2 of Fig. 1; and

Fig. 3 is an installed view showing the present invention installed in a car.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to Figures 1 and 2, a rear-view mirror 10 in accordance with the present invention is generally comprised of a hollow casing 11 to hold a mirror (not shown) for allowing the driver to see traffic approaching from behind. The casing 11 comprises an opening 12 on the back wall thereof covered with a light permeable lamp shade 13 and communicated with an internal chamber 14 thereof, a lamp socket 17 fastened inside the internal chamber 14 to hold a lamp

bulb 15, a reflector 16 covered over the inside wall around the internal chamber 14 to reflect light, and an electric wire 18 connected between the lamp socket 17 and the car battery power supply (not shown). A control switch (not shown) is connected to the electric circuit of the lamp socket 17 for regulating the intensity of light. The control switch can be a High/Low/Off selector switch. The control switch must be installed in the car at a location convenient for the control of the driver. As the lamp bulb 15 is turned on, the light of the lamp bulb 15 is reflected by the reflector 16 to project through the lamp shade 13.

Referring to Figures 1 and 2 again, a printed circuit board 20 is fastened inside the casing 11 of the rear-view mirror 10 to hold a plurality of light emitting diodes 19 in respective through holes (not shown) on the back wall of the casing 11 around the border. The base of the printed circuit board 20 is made from a flexible plate so that it fits over the inside wall of the casing 11. The light emitting diodes 19 are controlled to flash one another another as the lamp bulb 15 is turned on. Therefore, the light emitting diodes 19 form into a visual warning signal device.

Figure 3 illustrates two rear-view mirrors 10 of the aforesaid structure installed in a car. As the lamp bulbs and light emitting diodes of the rear-view mirrors 10 are turned on, the mist covered on the rear-view mirrors will be evaporated by the heat of the respective lamp bulbs and light emitting diodes within a short time. Because the rear-view mirrors 10 respectively give light, the size (width) of the car can be seen at distance during the night. Further, the light emitting diodes are controlled to give a flashing warning signal to the passers-by and the cars passing by or approaching from behind as the lamps of the rear-view mirrors 10 are turned on. Therefore, the present invention can effectively prevent the occurrence of traffic accidents.

While only one embodiment of the present invention has been shown and described, it will be understood that various modifications and changes could be made without departing from the spirit and scope of the invention.

What is claimed is:

1. A rear-view mirror of the type having a mirror fastened to a casing for giving a view of the area behind a vehicle, the improvement comprising a light permeable lamp shade covered on a back opening on said casing, and a lamp fastened inside said casing and controlled to give light toward said lamp shade.

2. The improvement of claim 1 which further comprises a series of light emitting diodes fastened in respective through holes on said casing and controlled by a control circuit to flash one after another.

3. The improvement of claim 1 wherein said lamp is controlled by a light regulating switch.

4. The improvement of claim 2 wherein said said control circuit is electrically connected to said lamp through a control switch.

Patents Act 1977
E ,miner's report to the Comptroller under
S\ :ion 17 (The Search Report) -7-

Application number

GB 9311654.9

Relevant Technical fields

(i) UK Cl (Edition L) B7J

(ii) Int Cl (Edition 5) B60R 1/12

Search Examiner

COLIN THOMPSON

Databases (see over)

(i) UK Patent Office

(ii)

Date of Search

9 AUGUST 1993

Documents considered relevant following a search in respect of claims 1-4

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
X	GB 2211472 A (BRITTON)	1,3
X	GB 2161440 A (COOKE)	1,3
X	GB 2080748 A (SLATTERY)	1,3
X	GB 1210061 A (HAVILL)	1,3
X	GB 0624823 A (HINDS)	1,3
X	GB 0379576 A (CONDON)	1,3

Identity of document and relevant passages	Relevant to claim

Categories of documents

X: Document indicating lack of novelty or of inventive step.

Y: Document indicating lack of inventive step if combined with one or more other documents of the same category.

A: Document indicating technological background and/or state of the art.

P: Document published on or after the declared priority date but before the filing date of the present application.

E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.

&: Member of the same patent family, corresponding document.

Databases: The UK Patent Office database comprises classified collections of GB, EP, WO and US patent specifications as outlined periodically in the Official Journal (Patents). The on-line databases considered for search are also listed periodically in the Official Journal (Patents).