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(12) **United States Patent**
Yamabe

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(54) **DOOR MIRROR**

2001/0012164 A1 8/2001 Englander
2002/0015241 A1* 2/2002 Belaire 359/866

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FOREIGN PATENT DOCUMENTS

(73) Assignee: **Atras Auto Co., Ltd.**, Osaka (JP)

DE 3839322 5/1990
GB 2 200 609 A * 8/1988
GB 2223724 A * 4/1990
JP 08-058473 A * 3/1996
JP 08-198010 A * 8/1996
JP 09-301072 A * 11/1997
JP 11-115631 A * 4/1999
JP 2000-052862 A * 2/2000
JP 2000-108786 A * 4/2000
JP 2003-040037 A * 2/2003
WO WO 03/011641 A1 * 2/2003

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(30) **Foreign Application Priority Data**

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(51) **Int. Cl.**
G02B 7/182 (2006.01)
B60R 1/06 (2006.01)
B60R 1/08 (2006.01)

OTHER PUBLICATIONS

“Correct Car Mirror Adjustment for YOUR Safety”, Popular Science, p. 43, Dec. 1992.*

* cited by examiner

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(52) **U.S. Cl.** **359/841**; 359/872; 359/877

(57) **ABSTRACT**

(58) **Field of Classification Search** 359/850, 359/851, 855, 865, 866, 874, 876, 841, 843, 359/872, 877

A door mirror which is installed on a motor vehicle's body in such a manner as to project laterally from the vehicle's body so as to reflect on a surface of the mirror what is behind the vehicle's body, wherein the mirror surface of the door mirror is divided into two parts, and thus divided mirror surfaces are respectively provided with reflection angle adjusting mechanisms so that reflection angles of the divided mirror surfaces can be independently and arbitrarily adjusted, and the divided mirror surface positioned on the outer side can be turned to project laterally from the door mirror to face outward.

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,916,967 A * 12/1959 Husak 359/855
4,022,520 A * 5/1977 Scifres 359/855
4,498,738 A 2/1985 Kumai
4,502,759 A * 3/1985 Herzog et al. 359/876
5,760,978 A * 6/1998 Smith 359/855
6,193,377 B1 * 2/2001 Spigner 359/602

10 Claims, 15 Drawing Sheets

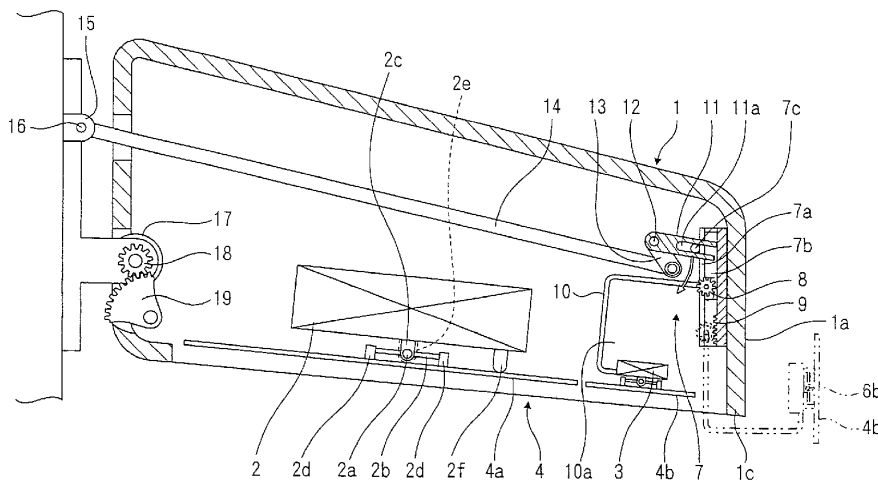


FIG. 1

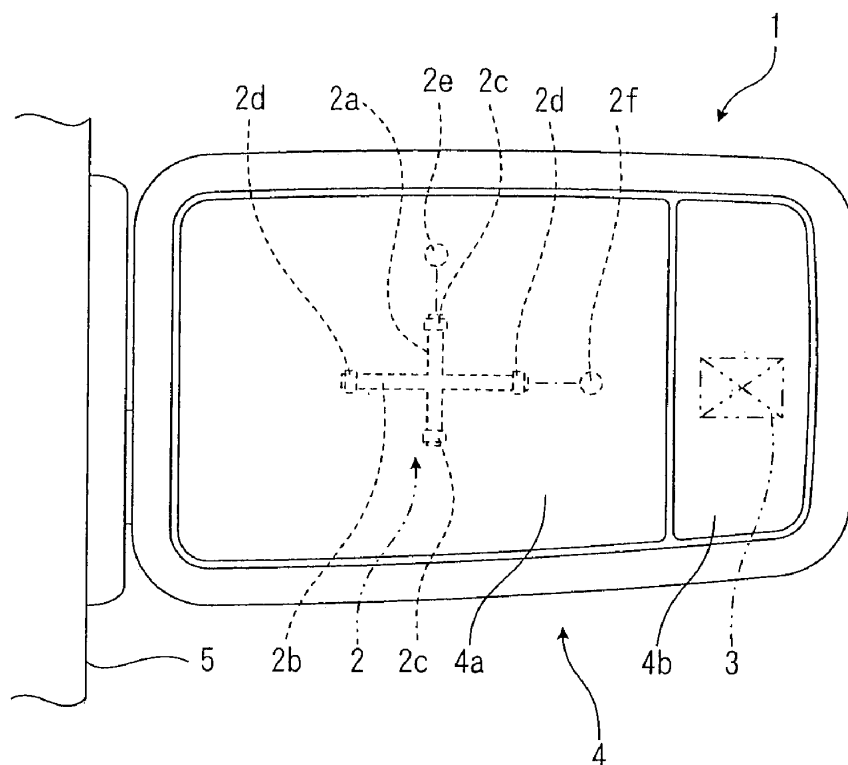


FIG. 2

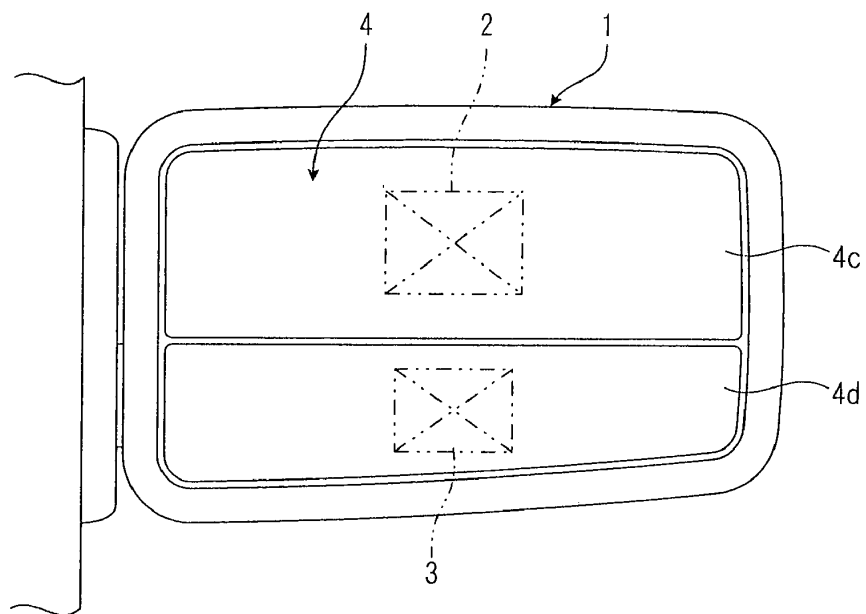
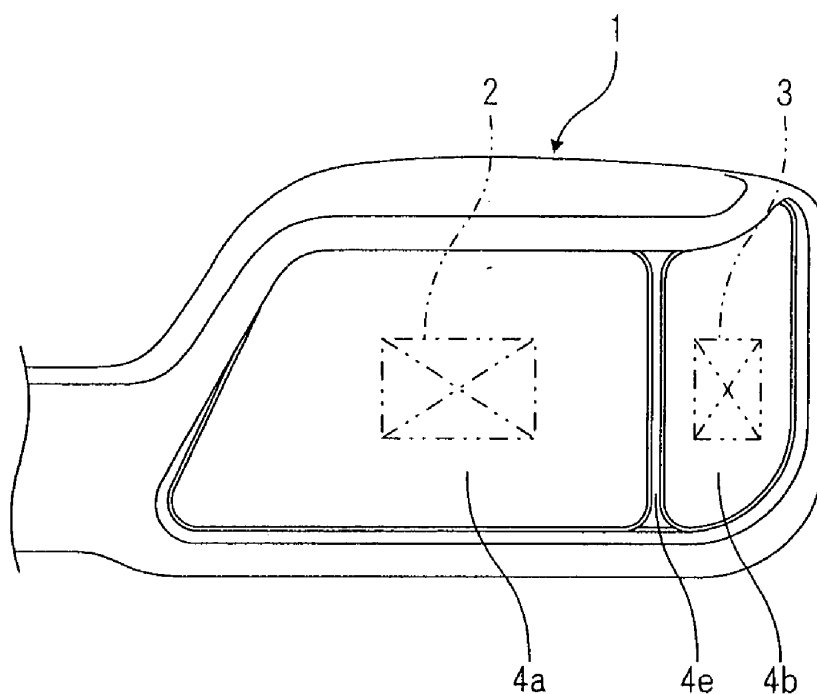


FIG. 3



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