



US006984048B2

(12) **United States Patent**  
**Yamabe**

(10) **Patent No.:** **US 6,984,048 B2**  
(45) **Date of Patent:** **Jan. 10, 2006**

(54) **DOOR MIRROR**

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

(75) Inventor: **Hideyasu Yamabe**, Osaka (JP)

**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

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/699,181**

(22) Filed: **Oct. 31, 2003**

(65) **Prior Publication Data**

US 2004/0090689 A1 May 13, 2004

(30) **Foreign Application Priority Data**

Nov. 1, 2002 (JP) ..... 2002-319405

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

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

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

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

**OTHER PUBLICATIONS**

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

\* cited by examiner

*Primary Examiner*—John Juba, Jr.

(74) *Attorney, Agent, or Firm*—D. Peter Hochberg; Sean Mellino; Katherine R. Vieyra

(57) **ABSTRACT**

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.

**10 Claims, 15 Drawing Sheets**

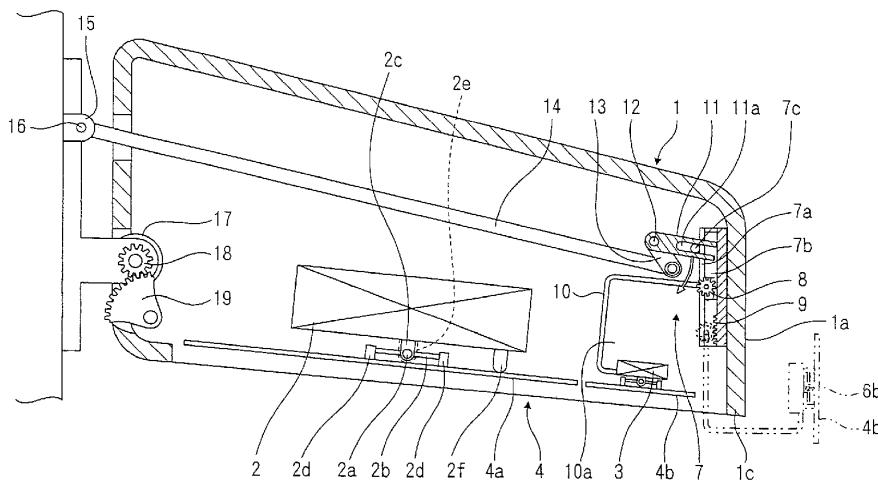


FIG. 1

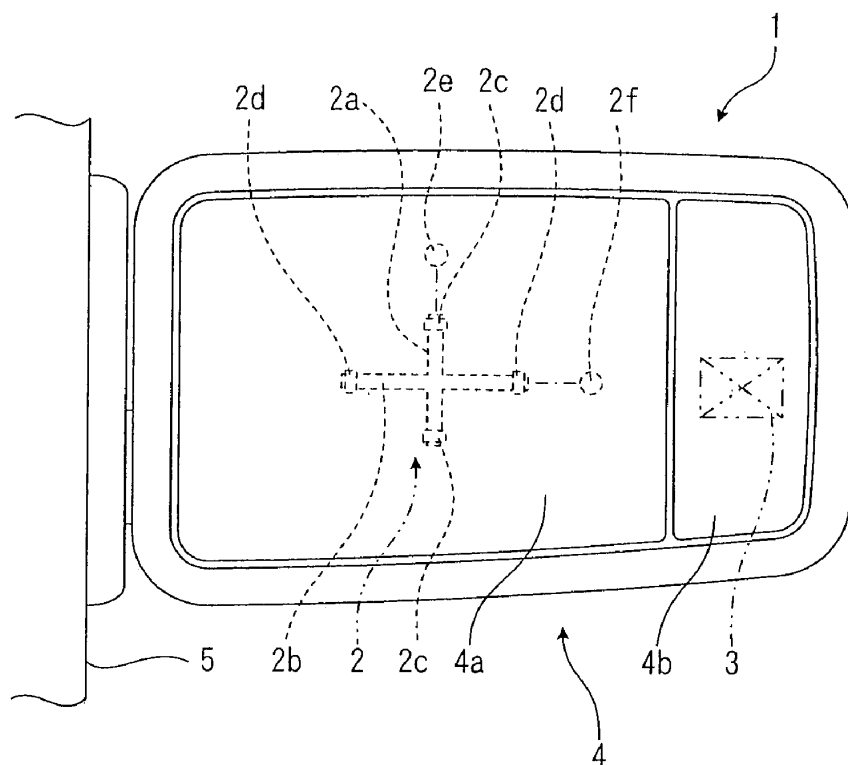


FIG. 2

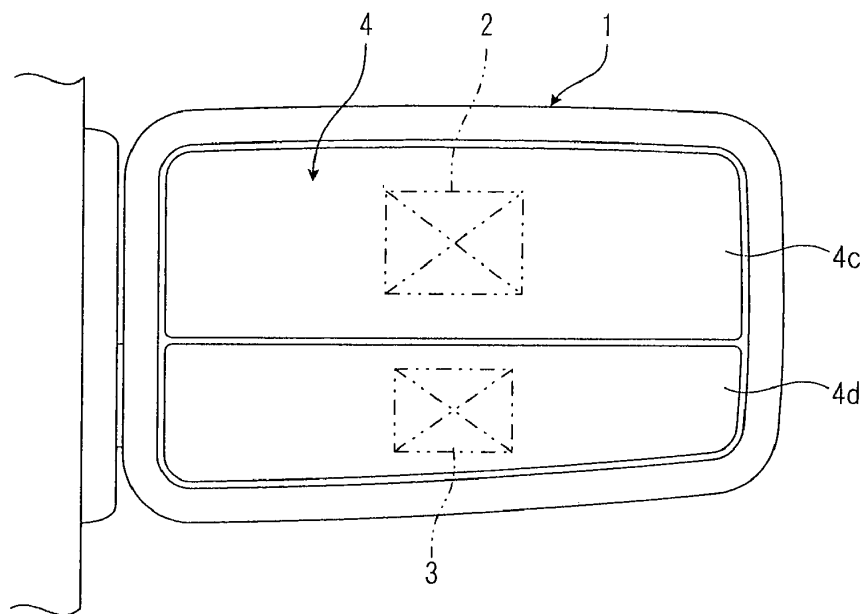


FIG. 3

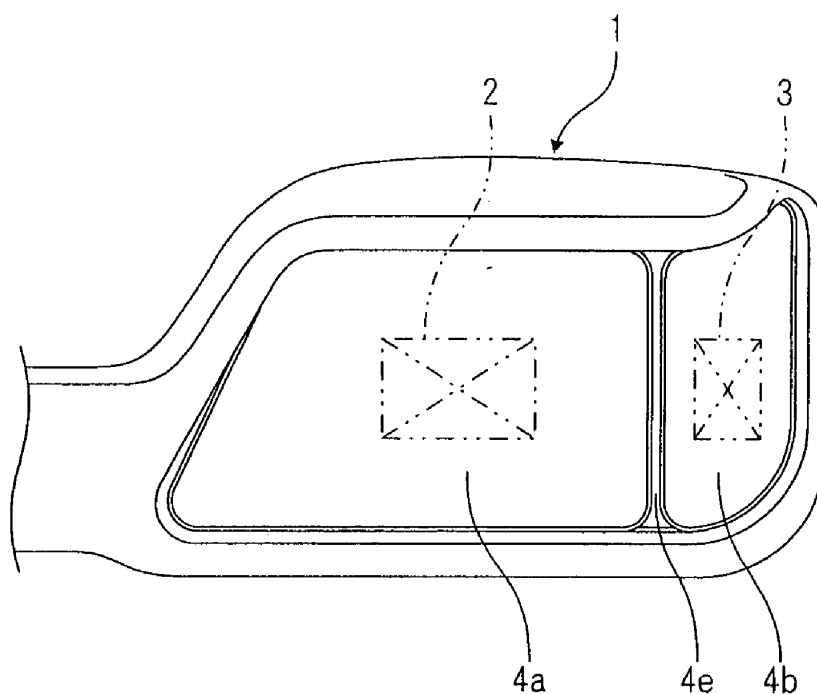
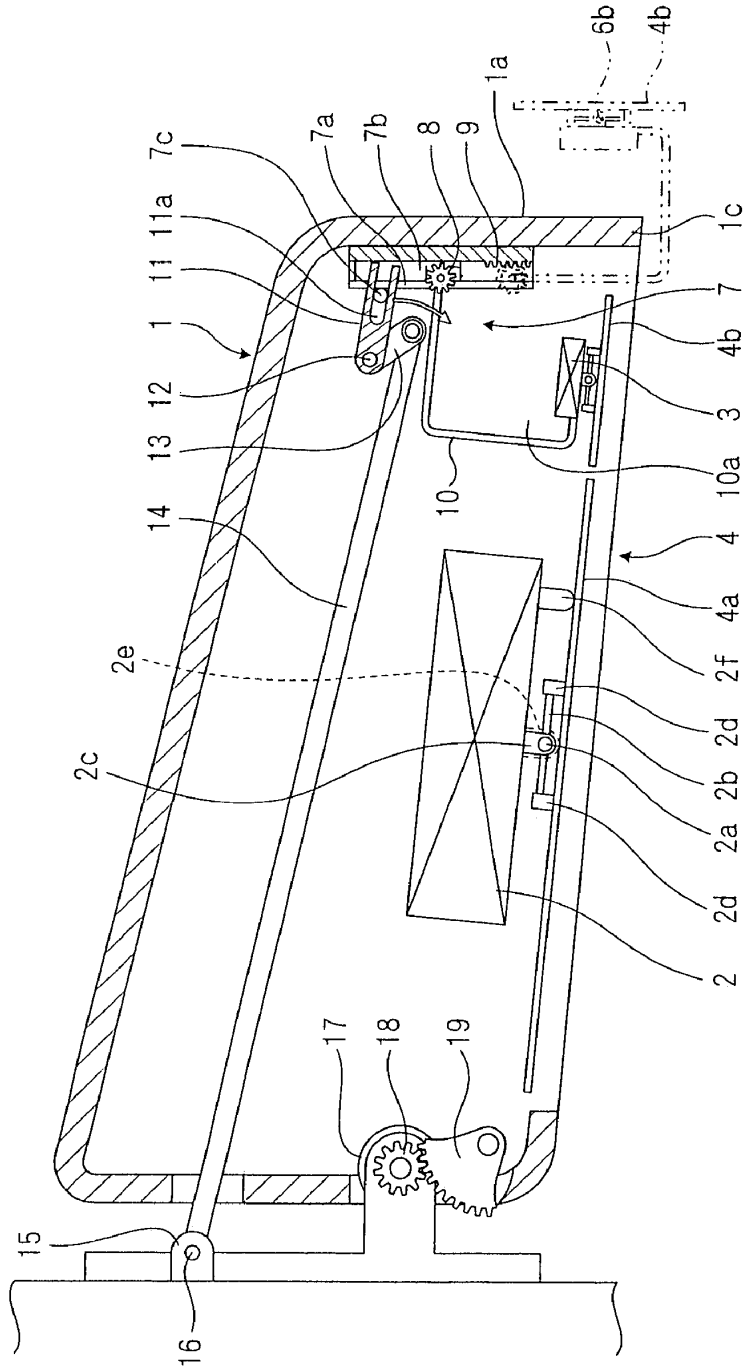


FIG. 4



# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.