

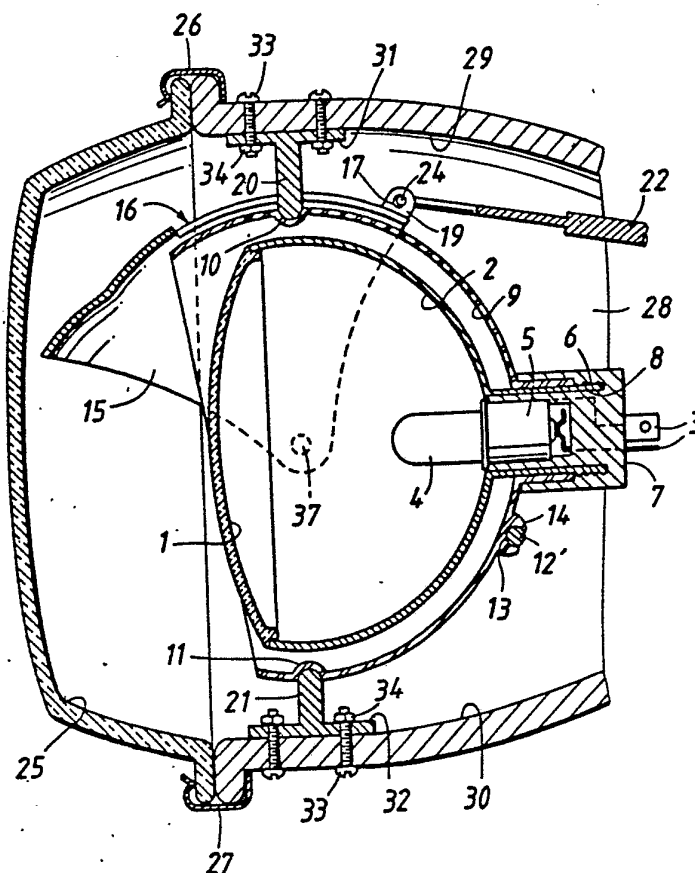
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(54) Title: AN AUTOMOBILE HEADLIGHT WHICH THROWS ITS LIGHT IN THE ADJUSTED DIRECTION

(57) Abstract

An automobile headlight freely adjustable in the upward and downward directions and from side to side, in which a reflex mirror with a lens attached and a cover with pivot suspensions formed in the upper and lower parts and with fixing means with a cover working bar inserted into the outer wall in the rear lower part are fixed by a socket; a cap with a slot and brackets united with a cap working bar formed is axially fixed so as to make a turn upward and downward in the center from both sides (left and right) of the cover; irradiation direction is made adjustable by pivoting the cover within the housing by dint of fixing means together with a steering device; and the effect of safe driving at night is produced by providing the driver with an excellent front-watching ability.



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SPECIFICATION

TITLE

An automobile headlight which throws its light in the adjusted direction

5 TECHNICAL FIELD

The present invention relates to an automobile head - light the irradiation direction of which is freely ad - justed upward, downward and from side to side.

BACKGROUND ART

10 In the case of conventional automobile headlights, there have been a headlight composed of a downward headlight for short distance on the left and an upward headlight for long distance on the right, and a headlight with two types of built-in filaments in an electric bulb for use as one headlight designed to throw
15 a light upward and downward.

Either of these two conventional automobile head - lights is fixedly installed in its housing and adjust - able only upward and downward, whether it is adjusted by
20 human power or automatically by sensing the illumination of an automobile coming in the opposite direction in an electronic way.

Even when it throws its light on the ground, it is im - possible for it to throw its light on the ground on its
25 close front side due to its fixed degrees of irradiation angle.

In the case of the present invention, however, it aims to provide a headlight which can quickly throw a light in the direction to which the automobile turns by adjusting
30 its irradiation angle from side to side and can also

throw a light on the ground just thereunder when the automobile arrives at the top of a slope by setting its irradiation angle extremely downward.

DISCLOSURE OF THE INVENTION

5 The present invention is characterized by being provided with a reflex mirror where a lens is fixed in the front and an electric bulb is fixed in the rear, a means by which to fix a working bar into the outer wall in the rear lower part, a pin which enables a cap, which com-
10 prises a bracket formed to insert into the upper part thereof a slot and both ends of working bar from the center of cover and a pivot suspension formed in the upper and lower parts, to turn upward and downward and by being pivoted so as to enable a headlight to turn from
15 side to side within its housing by dint of a means with a pivot projectingly fixed and a pivot suspension of said cover.

BRIEF DESCRIPTION OF THE DRAWINGS

20 Figure 1 is a front view showing that the irradiation angle of an automobile headlight is adjusted according to the embodiment of the present invention.

Figure 2 is a vertical sectional view of Figure 1 .

Figure 3 is a ground plan view of Figure 1 .

25 Figure 4 is a vertical sectional view showing that the headlight embodied by the present invention is pivoted within its housing.

Figure 5 is a vertical sectional view showing that the headlight uses the inner surface of cover as
30 a reflex mirror in another embodiment trans-

formed by the present invention

BEST MODE FOR CARRYING OUT THE INVENTION

When an explanation is given to the newest embodiment of the present invention according to the drawings attached hereto, it comes as follows :

Figure 1 and Figure 2 are a front view and a vertical sectional view of an automobile headlight the irradiation direction of which is adjustable according to an embodiment of the present invention.

10 A terminal(3) is exposed at the rear end of a reflex mirror(2) with a lens(1) inserted into the front side and the base(5) of an electric bulb(4) is united therewith and a bolt part(8) which will be combined with a socket(7) with a nut part(6) formed is formed.

15 A cover(9), which is open at its front side and at its rear end, forms confronting pivot suspensions(10)(11) in the upper and lower parts and is interlocked with the steering device of an automobile on the outer wall in the rear lower part and a fixing means(14) provided with a globular groove(13) into which an end-globular (12') cover working bar(12) will be inserted from the direction of axis is formed.

25 The said reflex mirror(2) and a cover(9) will be fixed under the condition that they are inserted into the inside of a socket(7), as shown in Figure 2.

Figure 3 is a ground plan according to an embodiment of the present invention, which shows that it is axially fixed by pins(36)(37) so as to enable a cap(15) to make a turn upward and downward in the cover(9).

30 A cap(15) forms in the upper center a slot(16) with

its rear side open and brackets(18)(19) provided with a hole(17) at both sides of an open slot(16). In the slot (16), a pivot(20) located in the upper part out of pivots(20)(21) which are pivoted with pivot suspensions(10) (11) formed in the upper and lower parts of a said cover (9) will be placed and, in the hole(17) of said bracket -s(18)(19), both ends(23)(24) of a cap working bar(22) which will be connected to such a drive as a drive cable or a link will be inserted.

10 And a cap(15) is axially fixed in the center from both sides of a cover(9) by pins(36)(37) so as to make a turn.

Figure 4 is a vertical sectional view showing that a headlight embodied by the present invention is pivoted within the housing. It shows structure in which fixing means(31)(32) with pivots(20)(21) fixed projectingly on the inner walls(29)(30) in the upper and lower parts of a housing(28) to the front side of which a lens(25) will be fixed by dint of detachable means(26)(27) are combined by a bolt(33) and a nut(34) and a cover(9) with pivot suspensions(10)(11) formed respectively in the upper and lower parts thereof is pivoted so as to move from side to side within the housing(28) by means of a cover working bar(12).

25 Figure 5 is another embodiment transformed by the present invention. It is a vertical sectional view showing that a headlight which uses the inner surface of a cover as a reflex mirror is pivoted within the housing. It illustrates that a headlight provided with structure , where a reflex layer is formed on the inner surface of

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a cover(9) and a separate reflex mirror is left out by fixing a lense(35) to the open front side of a cover(9), is furnished within the housing(28).

As the present invention is constituted with a cap(15) fixed axially in the center from both sides(left and right) of a cover(9) by pins(36)(37) so as to make a turn upward and downward as shown in Figure 2 and Figure 3, the driver can freely adjust the irradiation direction of headlight upward and downward by the upward and downward operation of a cap(15) effected by means of a cap working bar(22) connected to its drive like a drive cable or a link interlocked with an unillustrated steering device installed undeneath his seat.

In addition, as it possesses not only a function designed to adjust the irradiation in the upward and downward directions but also a cover(9) pivoted within the housing(28) by pivot suspensions(10)(11), and pivots(20)(21) of fixing means(31)(32), it is linked with a steering device operated by a steering wheel and it can adjust the irradiation of headlight in the left or right direction to which the automobile turns by means of a cover working bar(12) inserted axially into the fixing means(14) formed on the outer wall in the rear lower part of a cover(9).

25 INDUSTRIAL APPLICABILITY

The automobile headlight designed to adjust its irradiation direction by the present invention is able to watch the front in the direction to which the driver wants to make a turn by adjusting its irradiation direction together with a steering device while running .

In particular, it has the effect of safely driving the automobile at night by providing the driver with a function able to previously watch his front directly there -under through downward adjustment of its irradiation direction when he arrives at the top of a slope on which he is running.

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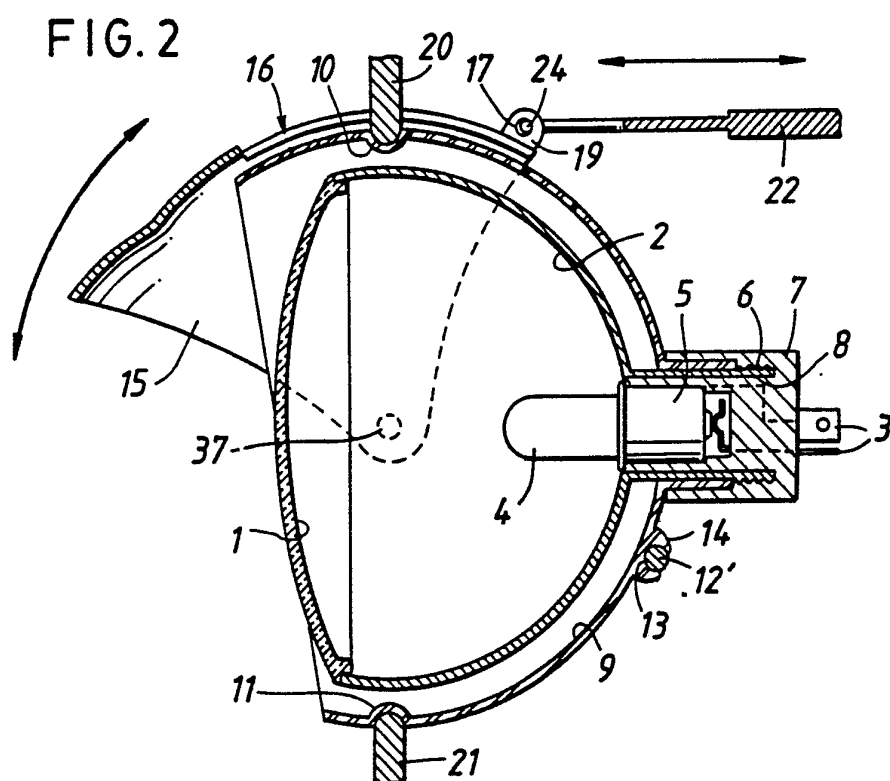
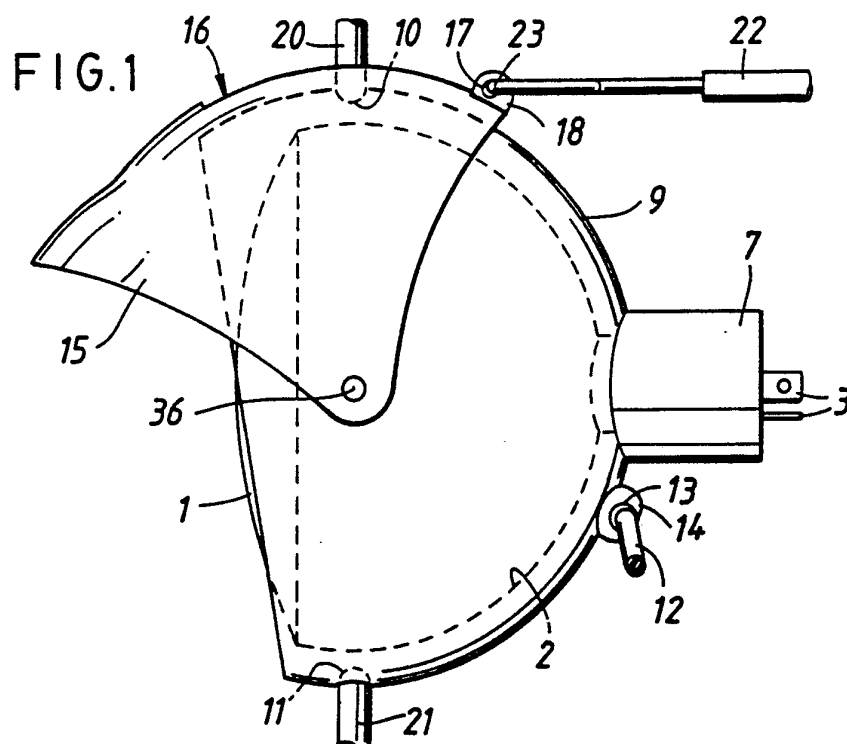
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CLAIMS

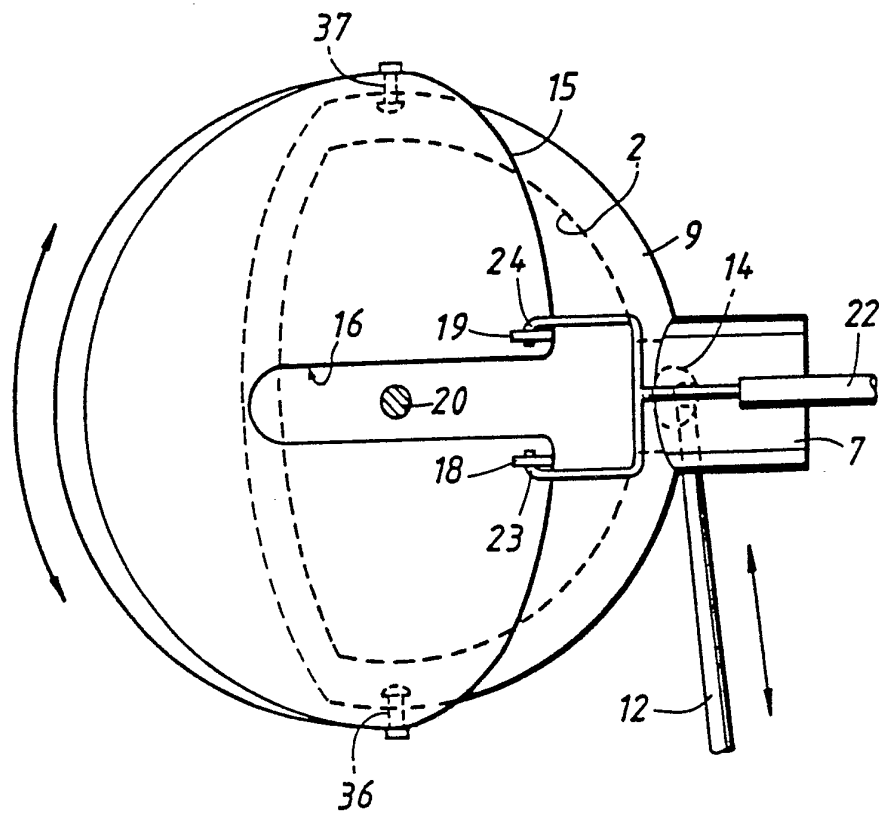
1. An automobile headlight, in which a reflex mirror(2) with a lens(1) attached to the front side and an electric bulb(4) inserted into the rear side, and a cover(9) provided with a fixing means(14) with pivot suspensions(10)(11) formed in the upper and lower parts and a cover working bar(12) inserted into the outer wall in the rear lower part are fixed by a socket(7); a cap (15) with a slot(16) and brackets(18)(19) united with a cap working bar(22) formed is axially fixed so as to make a turn upward and downward in the center from both sides(left and right) of a cover(9) and irradiation direction with a cover(9) pivoted within the housing(28) by fixing means(31)(32) is adjusted.
2. The automobile headlight according to claim 1, in which irradiation direction with a reflex layer formed in the inner surface of a cover(9) and with a lens (35) attached to the open front side of a cover(9) is adjusted.
3. The automobile headlight according to claim 1, in which irradiation direction with said fixing means(31)(32) pivoted is adjusted.

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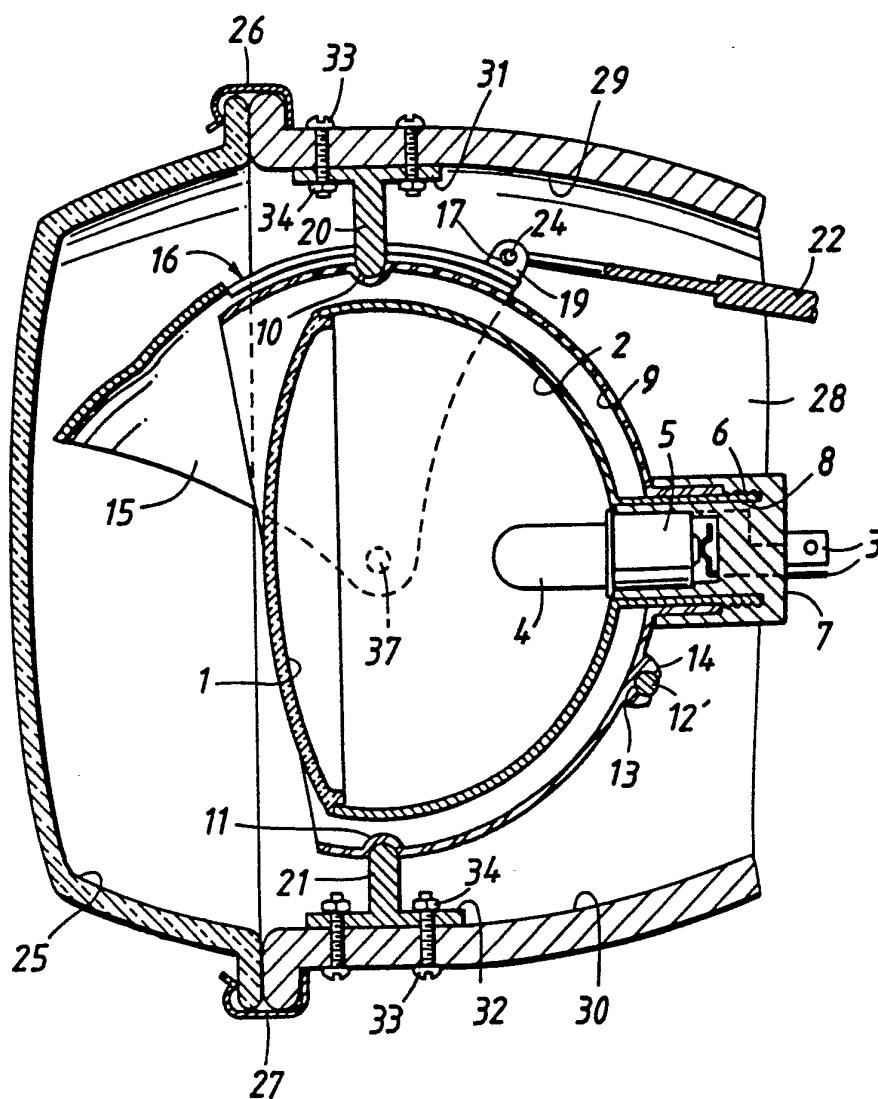
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FIG. 3



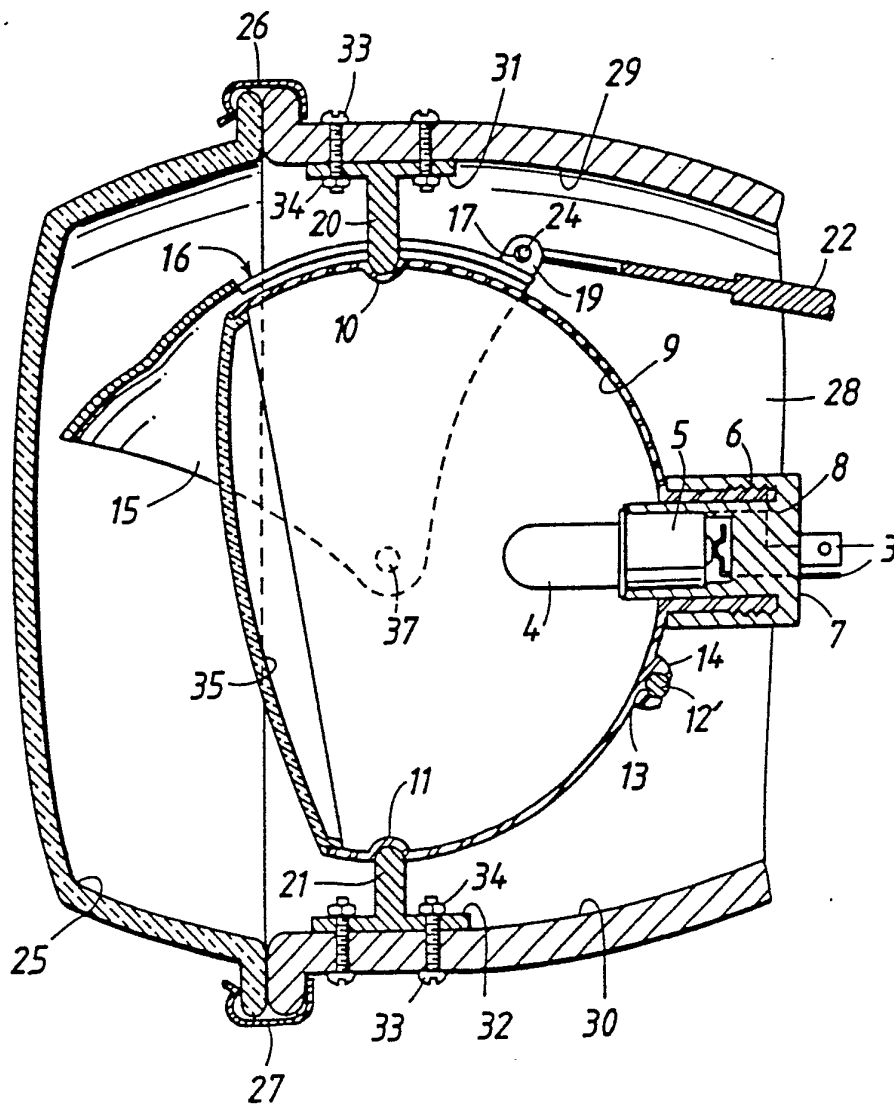
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FIG. 4



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FIG. 5



INTERNATIONAL SEARCH REPORT

International Application No PCT/KR 86/00014

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) *		
According to International Patent Classification (IPC) or to both National Classification and IPC		
IPC ⁴ : B 60 Q 1/06, 1/10, 1/12		
II. FIELDS SEARCHED		
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Classification System	Classification Symbols	
Int.Cl. ⁴	B 60 Q 1/00, 1/02, 1/04, 1/06, 1/08, 1/10, 1/12, 1/14	
Documentation Searched other than Minimum Documentation to the extent that such Documents are included in the Fields Searched *		
III. DOCUMENTS CONSIDERED TO BE RELEVANT*		
Category *	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
X	AT, A, 87 984 (KLEIN) 10 April 1922 (10.04.22), see totality.	(1,3)
X	AT, A, 138 788 (MARISCHKA) 25 September 1934 (25.09.34), see totality.	(1,3)
Y	DE, A1, 2 508 051 (OERTEL) 11 September 1975 (11.09.75), see totality.	(1)
Y	DE, A1, 3 230 018 (DAIMLER-BENZ AG) 16 February 1984 (16.02.84), see totality.	(1)
A	AT, A, 182 628 (GABERLE) 25 July 1955 (25.07.55), see totality.	(1)
A	CH, A, 93 110 (RYAN) 16 February 1922 (16.02.22), see totality.	(1)
A	US, A, 4 482 939 (TISHMAN) 13 November 1984 (13.11.84), see totality.	(1,3)
A	EP, A1, 0 129 519 (FIAT) 27 December 1984 (27.12.84), see totality.	(1,3)
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IV. CERTIFICATION		
Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report	
08 October 1986 (08.10.86)	13 October 1986 (13.10.86)	
International Searching Authority	Signature of Authorized Officer	
AUSTRIAN PATENT OFFICE	<i>P. Kippman</i>	

III. DOCUMENTS CONSIDERED TO BE RELEVANT (CONTINUED FROM THE SECOND SHEET)

Category *	Citation of Document, with indication, where appropriate, of the relevant passages	Relevant to Claim No
A	DE, B, 1 809 202 (CIBIE) 19 June 1969 (19.06.69), see totality. -----	(1,3)