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D E C I S I O N
of 8 March 2006

Case Number: T 1153/04 - 3.2.01

Application Number: 96650012.6

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Title of invention:
Mirror assembly

Patentee:
DONNELLY CORPORATION

Opponent:
BRUSÉS SANS, Ramòn

Headword:
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Relevant legal provisions:
EPC Art. 56

Keyword:
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Catchword:
-



Case Number: T 1153/04 - 3.2.01

D E C I S I O N
of the Technical Board of Appeal 3.2.01
of 8 March 2006

Appellant:
(Opponent)

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Decision under appeal:

Decision of the Opposition Division of the
European Patent Office posted 19 July 2004
rejecting the opposition filed against European
patent No. 0738627 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: J. Osborne
Members: P. L. P. Weber
C. Heath

Summary of Facts and Submissions

I. The present appeal lies from the decision dated 19 July 2004 to reject the opposition against European patent No. 0 738 627. The opponent named the ground of lack of inventive step.

The appellant (opponent) filed the notice of appeal on 28 September 2004, paid the appeal fee on the same day and the grounds of appeal were filed on 29 November 2004.

II. The claim as granted reads as follows:

"An exterior mirror system for a vehicle comprising an exterior mirror assembly (26') including a reflective element (28) contained within a housing (34') and a light source (126) also contained within the housing (34') and adapted to project a light beam (66) downwardly and rearwardly from the assembly (26') when mounted on the vehicle in order to provide a lighted security zone adjacent the side of the vehicle to which the assembly is mounted, the light source (126) being contained within an enclosure (116) within the housing (34'), the enclosure (116) having a light-transmitting opening (122) and a cover (130) for the light-transmitting opening (122), the light source (126) being positioned in the enclosure (116) and radiating light through the light-transmitting opening (122), characterised in that the reflective element (28) is adjustable within the housing (34'), and in that the light source (126), enclosure (116) and cover (130) form a light module (104) removably positioned in the housing (34') as a unit, the cover (130) being sealed

to the enclosure (116) and the light module (104) including a socket (124) for sealing the light source (126) in the enclosure (116) such that the light module (104) is substantially moisture impervious in order to be resistant to environmental elements."

III. The following documents played a role in the appeal procedure:

D1: GB-A-2275329

D3: JP-A-58188733

D3a: Translation of D3

D16: Ford Engineering Specification S80BB 17682,
Release Nr. 2707A/21, pages 15 and 21

D17: Ford System Design Specification Outside Rear View
Mirrors Version 17, 24 February 2003, Fluid
Ingress Resistance, page 126 and Fluid Ingress
Protection, page 114

D18: US-A-4281899

D19: US-A-4693571

D20: EP-B-0525541

Enclosure A: Declaration of Mr A. Rodriguez-Barros

Enclosure B: Declaration of Mr N. R. Lynam

Enclosure C: Volkswagen "Functional requirements" for exterior lights TL 956

Enclosure D: Standard PV 3501

Enclosure E: Standard VW 80101.

IV. Oral proceedings took place on 8 March 2006.

The appellant requested the setting aside of the decision and the revocation of the patent. The respondent (proprietor) requested dismissal of the appeal (main request) or in the alternative maintenance of the patent in the version according to one of auxiliary requests 1A to 7A as filed with letter dated 3 February 2006.

V. The arguments of the appellant in respect of the respondent's main request can be summarized as follows:

D1 which is considered to disclose the closest prior art discloses an exterior mirror system having all the features of claim 1 of the granted patent except that the light source, the enclosure and the cover form a light module removably positioned in the housing as a unit. All the other features of claim 1 are either explicitly or implicitly known from D1. In particular the opposition division had already recognised the presence of an enclosure in the mirror system according to D1. That the cover has to be sealed to the enclosure and that the socket is sealed to the enclosure are features which are compulsory for such products to be commercialised, as can be seen in enclosure C, since these products have to be able to work in difficult

environmental conditions and in particular resist dust and moisture ingress. For these reasons D1 implicitly discloses these features for the skilled person even though they are not explicitly mentioned.

The objective problem when starting from D1 can thus be seen as simplifying the construction of the mirror system according to D1, in order to make the mounting and dismounting of the illuminating system easier.

The solution chosen to make it as a module or a unit is an obvious solution, in particular in view of the teaching of D3 or D20.

D3 discloses an exterior mirror for a car or a motorbike with an integrated light or lights which are mounted as a unit into the housing of the mirror system. It is indicated at several places in D3A that the lens, the enclosure and the socket form a single body. The fact that a seal is not explicitly mentioned cannot be considered to be a difference, since as already explained it is self-evident that the elements must be sealed against the environment and since the wording of present claim 1 is quite general in that it simply uses the term "sealed" without specifying more precisely any degree or means of sealing.

The skilled person who would like to solve the mentioned objective problem would first look for a solution in the same field of exterior mirrors with lights and thus find a solution in D3 allowing him to change the construction of D1 and automatically come to the subject-matter of Claim 1.

The same applies when looking at D20 which refers in general to lamps for cars and discloses a unit comprising an enclosure with a cover and a socket being sealed to the enclosure, the whole unit being removable from the car bodywork part in which it is fixed. The problem to be solved is the same as in the present case, namely an easy mounting and dismounting of the unit to and from the bodywork part in order to be able to easily change the lamp bulb.

The skilled person knows that such tail lights or number plate illuminating lights also have to withstand comparable environmental conditions and have to exhibit comparable illuminating levels as those on exterior mirrors, as is confirmed by enclosure C. He would apply the teaching of D20 by incorporating a unit as disclosed in figure 5 of D20 into the bottom wall of the housing of the exterior mirror shown in figure 8 of D1 and thereby come to the subject-matter of present claim 1.

VI. The arguments of the respondent can be summarized as follows:

The reflector shown in D1 is not necessarily an enclosure, figure 8 only showing the reflector in cross-section and its form in the other dimension not being apparent. The enclosure of present claim 1, on the other hand, forms most of the walls of the module, it has a socket and it has a cover, so that in D1 there is no enclosure within the meaning of the present patent.

In addition, the most usual way of dealing with the problem of water ingress is to provide the mirror housing with drainage holes, sealing always being more expensive and thus not being a solution the skilled person would automatically adopt. For this reason it cannot be assumed that in D1 either the socket or the lens is sealed to the enclosure. The drainage principle is also mentioned in the documents from the car manufacturers submitted by the appellant.

It should also not be forgotten that the invention has been made almost 10 years ago and due to its commercial success there is a risk of ex-post facto analysis when looking at it today.

In the mirror system according to figure 3 of D3 when the screws are taken away the reflector and the lens form two separate, independent pieces and not a unit as required by present claim 1, so that D3 cannot suggest the remaining features of claim 1.

D20 is concerned with a number plate illuminating lamp which the skilled person would not consider when he has a problem with an exterior mirror since such a number plate lamp is exposed to very little moisture.

In addition, in D20 there is no mention of moisture imperviousness and the unit would require constructional modifications to be able to project a beam downwardly and rearwardly when fixed in a mirror.

In the context of D20 it might be useful to remember the "could-would" approach since it is not sufficient that the skilled person might recognise some features which he could apply but that he would do so.

Reasons for the Decision

1. The appeal is admissible.

Main request

2. Novelty has not been disputed and the board is satisfied that the subject-matter of claim 1 is novel.

3. *Inventive step*

- 3.1 It is undisputed that the exterior mirror system according to D1 is the prior art closest to the subject-matter of claim 1.

D1 discloses in its figure 8 and the corresponding parts of the description an exterior mirror system comprising an exterior mirror assembly including a reflecting element contained within a housing, the reflecting element being adjustable within the housing. It also discloses a security light comprising a light source contained in the housing and adapted to project a light beam downwardly and rearwardly from the assembly when mounted on the vehicle in order to provide a lighted security zone adjacent the side of the vehicle.

3.2 D1 does not disclose the following features of the subject-matter of Claim 1:

- (i) an enclosure containing the light source, within the housing, the enclosure having a light transmitting opening and a cover for the light transmitting opening, the light source being positioned in the enclosure and radiating light through the light transmitting opening,
- (ii) the light source, enclosure and cover forming a light module removably positioned in the housing as a unit,
- (iii) the cover being sealed to the enclosure,
- (iv) the light module including a socket for sealing the light source in the enclosure such that the light module is substantially moisture impervious in order to be resistant to environmental elements.

3.3 The board cannot agree with the appellant's allegation that the figures 7 and 8 of D1 disclose an enclosure according to feature (i).

The word "enclosure" has to be understood in the context of the present patent specification. The patent specification contains 31 figures and associated description. The content of figures 1 to 20 and the description relating thereto generally corresponds to the content of D1 and is explicitly stated in the patent specification to fall outside of the scope of present claim 1. In the present patent specification

the word "enclosure" is used specifically and only in relation with the embodiments of the invention beginning with the description of figure 21 in paragraph [0020]. It designates an independent body having continuous walls and two openings, one for the socket and one for the light transmission, the whole of this body being mounted into the housing of the mirror system.

Such a body is not disclosed in D1. The reflector in D1 cannot be seen as an enclosure according to the above interpretation, since it is not unambiguously apparent from the drawings in D1, which form the reflector has in the plane perpendicular to the paper and whether the reflector has a wall structure comparable to the one implied by the term "enclosure" in the patent in suit.

As to the comment of the appellant that the opposition division considered this feature to be present, the board is not bound by the technical assessment made by the opposition division, it may consider the matter of its own motion.

- 3.4 The board also cannot share the opinion of the appellant that enclosure C serves as evidence that the sealing features of the claim (the cover being sealed to the enclosure and the socket being sealed to the enclosure) are implicitly present in the embodiment of figure 8 of D1.

While the board considers it to be self-evident that exterior mirrors have to satisfy a number of technical requirements to be industrially applicable and commercially usable on modern cars, enclosure C is

evidence that these requirements may only impose test conditions which are to be met by the products without specifying constructional requirements such as sealing.

In the present case, this means that in the absence of any indication in D1 that the socket or the cover lens should be sealed to the reflector, it is not implicit to the skilled person that the mirror system of D1 would comprise sealing means to fulfil the requirements of resistance to environmental elements. Indeed, D17 explicitly permits openings when it states: "the housing of the module shall be designed to resist fluid ingress ... e.g. no openings on the +Z plane ... fluid shall be diverted from openings in the other module faces."

Furthermore it is to be noted that even if document enclosure C were to specify a constructional requirement, this could not be considered for the assessment of the disclosure of a feature in D1 since enclosure C merely shows the specific requirements of one particular car manufacturer and thus cannot be considered to be common general knowledge of the skilled person.

- 3.5 By providing a sealed connection between the enclosure and the socket on the one hand and a sealed connection between the cover and the enclosure on the other side a substantially hermetically closed element is obtained better protecting the sensitive electrical elements and thus diminishing the risk of breakdowns in this area. With the provision of the light source, enclosure and cover as a module removably positioned in the housing,

the ease of servicing is improved since the module can be taken out to, e.g. change a lamp bulb.

The above-mentioned differentiating features would have the effect of facilitating the mounting of the security light of D1 while at the same time better protecting the bulb and the interior of the module from moisture and other environmental attacks, thus increasing the reliability and the durability of the light.

The objective problem can thus be seen as increasing the ease of service, the reliability and the durability of the security light according to D1.

Increasing the ease of service, the durability and the reliability of the different elements of a car is a constant desire of the skilled person and thus an obvious problem to be solved.

3.6 The appellant alleged that the documents D3/D3a and D20 each suggest the differentiating features.

3.6.1 D3/D3a discloses in figures 2 to 4 an exterior mirror for cars with an integrated light which is mounted into the housing of the mirror system and includes a removable lens, a reflector including a socket, the removable lens and the reflector being fixed with screws to the housing of the exterior mirror. As can be seen from figure 3 of the drawings the screws go through holes in the lens and holes in the reflector and are screwed into the wall of the housing in order to fix the lens and the reflector to it.

Contrary to the opinion of the appellant, the board considers that there is no indication in D3/D3a that

the reflector, the lens and the socket should form a module which can be removed from the housing as a unit.

It is an object of the invention in D3/D3a to improve safety with respect to pedestrians and oncoming vehicles and also to improve external appearance of the vehicle while facilitating mounting of a turn signal lamp. According to the disclosure of D3 these objects are achieved by integrating or embedding the turn signal lamp into the housing of the external mirror device forming a single integrated body therewith. This is said to improve appearance and safety and to be achievable at lower cost.

The whole disclosure of D3/D3a has to be interpreted with these objects in mind. To achieve the improved appearance, it is mentioned several times in D3/D3a, e.g. claim 4, that the lens of the direction indicator lamp device is configured to be the same form as the external surface of the housing and is formed so as to "run in synchronicity forming a single body reaching the curvature of the anterior parts and lateral parts thereof". This means that the combination of the turn signal lamp with the housing of the rear view mirror forms a unit when viewed by an observer. For the inventor of D3 the aesthetic aspects were important so that the turn signal lamp was properly integrated in the housing of the mirror whereby both together would be perceived as a unit. This is different from the turn signal lamp forming a unit on its own as alleged by the appellant.

Thus there is no indication in D3/D3a that the reflector, the lens and the socket should form a module which can be removed from the housing as a unit.

There is also no indication in D3/D3a either that there is a seal between the socket and the reflector wall or that such a seal is present between the reflector wall and the lens.

It is mentioned in D3/D3a that the element shown in figure 3 between the lens and the housing is a "round shaped buffering supporting member having elasticity like rubber". It is implicit that such an element necessarily also has some sealing effect. However, such a sealing would be only between the lens and the housing.

In the opinion of the board the skilled person starting from the mirror system according to D1 and looking to solve the stated problem might in the light of D3/D3a adopt the fixation of the lens by screws which are easily removable when the light in the mirror has to be serviced and provide a sealing or a round shaped buffering supporting member having elasticity similar to rubber between the lens and the housing to dampen vibrations and improve durability. However, even if he did so, this would not bring him to the subject-matter of claim 1.

A combination of D1 and D3/D3a therefore does not destroy inventive step of the subject-matter of present claim 1.

3.6.2 D20 seeks to solve problems arising from mounting and dismounting a prior art number plate lamp. It discloses the solution in the more general context of a lamp for integration in the bodywork of a vehicle and having a housing which is longer than it is wide, which should be easily dismountable and integrated harmoniously in the bodywork of the vehicle. It proposes that the outer edge region of the housing rests on the bodywork and has on one of the short sides of the housing a lug for positioning it in relation with the bodywork and on the other short side of the housing a spring loaded catch for removably fixing the lamp to the bodywork. In one embodiment, in figure 5, a cover is glued or welded to the housing. It is shown in the drawing that the light source is in a socket which is mounted in the housing with an element therebetween which is illustrated in the way which is common for designating O-ring seals.

Even if this were to be considered as an implicit disclosure of the present differentiating features there is no indication that they are suitable for solving the set problem in relation with an exterior mirror system. Nor is there any indication in D20 that the particular lamp of the embodiment would be suitable to project a light beam downwardly and rearwardly when mounted into an exterior mirror system. Indeed, there is no disclosure of a reflector.

Moreover, an exterior mirror system is exposed to very specific environmental conditions since it necessarily extends outside the general profile of the vehicle. In particular due to the deflection of the air by the front part of the bodywork and, depending on the position of the mirrors also by part of the windscreen,

the air flow around an external mirror system is more intense than on other parts of the bodywork particularly in the region of the rear number plate, thus leading to higher pressures and higher risk of water and dust penetration.

In the opinion of the board given this difference in exposure to environmental conditions the skilled person would not have looked into the field of number plate illuminating devices or bodywork-mounted lamps in general to find a solution for the problem specific to an exterior mirror system.

The board cannot agree with the argument of the appellant that the statement in D20 that the lens is welded or glued to the enclosure and the apparent illustration in figure 5 of an O-ring between the socket and the enclosure means that the unit shown in figure 5 is sealed and that therefore the skilled person would see the advantages of this construction and integrate it into the mirror of D1.

In the board's opinion this is a typical ex-post facto analysis of D20, since the appellant having the knowledge of the invention sees advantages of the construction of D20 which are not described as such therein. Even if the sealing feature were implicitly disclosed in D20, the skilled person would not be encouraged to adopt it since there is no mention whatsoever of any advantage it brings. In order to come to the conclusion of the appellant the skilled person would have to recognise these advantages.

The shape of the mirror housing of D1 and/or the shape of the unit shown in figure 5 of D20 would also have to be changed in order to adapt them for each other.

In addition and contrary to the opinion of the appellant it seems improbable that the skilled person would place the unit of D20 in the bottom of the housing of the mirror system of D1, since this would involve moving away from the position of the security lamp on the rear face of the mirror system which is known from the closest prior art D1 and which is less exposed to environmental elements.

In summary the board considers that the skilled person would not look at D20 when seeking a solution for an exterior mirror system with a lamp. Even if he nevertheless would do so, not only would he have to recognise that the unit shown in figure 5 could be suitable to help him but several steps would also be necessary to adapt it to the intended use in D1. The combination of D1 with D20 therefore does not destroy inventive step of present claim 1.

3.7 The other documents are less relevant.

3.8 For these reasons the board is of the opinion that the subject-matter according to present claim 1 is not rendered obvious by the available prior art. Consideration of the respondent's auxiliary requests is therefore not necessary.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

A. Vottner

J. Osborne