

Internal distribution code:

- (A) [] Publication in OJ
(B) [] To Chairmen and Members
(C) [X] To Chairmen
(D) [] No distribution

D E C I S I O N
of 12 February 2003

Case Number: T 0292/00 - 3.2.1

Application Number: 93108592.2

Publication Number: 0587994

IPC: B60R 1/06

Language of the proceedings: EN

Title of invention:

Electrically powered foldable outer rearview mirror for motor vehicles

Patentee:

MURAKAMI KAIMEIDO CO., LTD

Opponent:

Donnelly Hohe GmbH & Co. KG

Headword:

-

Relevant legal provisions:

EPC Art. 56

Keyword:

"Inventive step - yes"

Decisions cited:

-

Catchword:

-



Case Number: T 0292/00 - 3.2.1

D E C I S I O N
of the Technical Board of Appeal 3.2.1
of 12 February 2003

Appellant: Donnelly Hohe GmbH & Co. KG
(Opponent) Hauptstrasse 36
D-97903 Collenberg (DE)

Representative: Zinngrebe, Horst, Dr.rer.nat.
Saalbaustrasse 11
D-64283 Darmstadt (DE)

Respondent: MURAKAMI KAIMEIDO CO., LTD
(Proprietor of the patent) 12-25, Miyamoto-cho
Shizuoka-shi
Shizuoka 422 (JP)

Representative: Riederer Freiherr von Paar zu Schönau, Anton
Boehmert & Boehmert
Kanzlei Landshut
Postfach 26 64
D-84010 Landshut (DE)

Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 28 December 1999
rejecting the opposition filed against European
patent No. 0 587 994 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: S. Crane
Members: J. Osborne
G. E. Weiss

Summary of Facts and Submissions

- I. The appeal is directed against the decision of the Opposition Division to reject the opposition against European patent No. 0 587 994.
- II. The opponent had requested revocation of the patent in its entirety on the ground that the subject-matter of the claims did not involve an inventive step (Article 100(a) EPC).
- III. The decision of the Opposition Division was posted on 28 December 1999. Notice of appeal was received on 25 February 2000 and the appeal fee was received at the same time. The reasons for appeal were received on 9 May 2000.
- IV. The appellant requested that the impugned decision be set aside and that the patent be revoked in its entirety because the claims did not involve an inventive step in the light of JP-U-3-69552 (D2).
- V. The respondent requested that the appeal be rejected and filed a translation into English of the text of D2 (hereafter D2T).
- VI. Claim 1 as granted reads as follows, wherein the designation of features as (a) to (i) has been added by the Board:

"An electrically powered foldable outer rearview mirror comprising;
(a) a base (11);
(b) a shaft (13) mounted on the base (11) and having a base portion (14);

- (c) a mirror body (15) rotatably mounted around the shaft (13);
- (d) a frame (17) provided in the mirror body (15) and having a root portion (18) formed with a hole (24) through which the shaft (13) penetrates;
- (e) an electric drive means (20) and a speed reduction gear mechanism (22) respectively fixed on the frame (17) for rotating the mirror body (15);
- (f) a clutch gear (30) engaged with an end gear (23) of the speed reduction gear mechanism (22) and connected to the shaft (13);
- (g) the under surface of the root portion (18) of the frame (17) being in surface contact (25) with the upper surface of the shaft base portion (14);
- (h) the clutch gear (30) being formed with a shock avoidance clutch (32, 34, 40, 45) on the upper surface thereof;
- (i) whereby a location clutch (33, 35, 36) for the position where the mirror is erected is formed on the lower surface of the clutch gear (30) and is mounted on the frame root portion (18)."

In addition to Claim 1, the patent as granted contains dependent Claims 2 to 5.

VII. The appellant's arguments can be summarised as follows:

D2 discloses the features (a) to (f) of Claim 1. D2 also discloses the features *per se* of a shock avoidance clutch and a location clutch. The subject-matter of Claim 1 differs from the disclosure of D2 only in feature (g) and in that the location of the two clutches is reversed. These differentiating features are the result of simple design choices and have no technical effect.

VIII. The respondent essentially rebutted the arguments of the appellant.

Reasons for the Decision

1. The appeal is admissible.

2. The Board is in agreement with the parties that D2 discloses the features (a) to (f) of Claim 1. D2 moreover discloses both a location clutch 19 and a shock avoidance clutch 16 which are located above and below the clutch gear respectively. The mirror assemblies of D2 and of the contested patent are both such that operation of the drive means releases the location clutch and causes the mirror body to pivot about the shaft e.g. to fold against a vehicle door on which the mirror assembly is mounted. In both assemblies pivoting movement of the body around the shaft is also possible under the influence of external force applied to the body, such as upon impact with a pedestrian, when the shock avoidance clutch releases.
 - 2.1 In the mechanism according to D2 the clutch gear 10 is located between the underside of the root portion 5a of the frame and the upper surface of the shaft base portion 13. During pivoting under the influence of the drive means the location clutch 19 mounted above the clutch gear releases to permit the frame 5 and its root portion 5a to rotate relative to the clutch gear which remains stationary relative to the shaft 2. During the release of the location clutch "curved strips" 23 of an annular holding spring 20 deflect to permit balls 18 to travel on the upper surface of the clutch gear 10 along a path 10a to raised portions 12. During forced

pivoting the clutch gear 10 rotates together with the frame 5 relative to the shaft 2 and its base portion 13, whereby balls 15 leave recesses 11 on the underside of the clutch gear. According to D2T this movement deflects both the annular spring 20 and a coil spring 21 acting on the upper surface of the annular spring (see the sentence bridging pages 11, 12). The location of the clutch gear beneath the root portion of the frame limits the possible length of engagement between the frame and the shaft.

2.2 The subject-matter of Claim 1 differs from that of D2 in that:

- the under surface of the root portion of the frame is in surface contact with the upper surface of the shaft base portion;
- the shock avoidance clutch is formed on the upper surface of the clutch gear; and
- the location clutch is formed on the lower surface of the clutch gear and is mounted on the frame root portion.

2.3 Contrary to the appellant's arguments, the differentiating features have a technical effect because, as a result of the location of the root portion in contact with the shaft base portion, maximum length of engagement between the frame and the shaft is possible. Moreover, no vertical movement of the mirror body takes place during forced pivoting. The Board also cannot agree with the appellant's argument that the subject-matter of Claim 1 is merely the result of a simple design choice as regards the position of the

clutches. Firstly, the clutches according to D2 are not self-contained assemblies which could be simply transposed but are part of an integrated assembly including the two springs 20, 21 which, although they are located above both clutches, operate independently in as far as only the annular spring compresses when the location clutch releases. Inversion of the entire assembly of clutches and springs would not result in the feature that the frame root portion is in surface contact with the upper surface of the base portion. A transposition of only the clutch components whilst maintaining the positions of the springs would separate the annular spring from the balls of the location clutch and prevent its operation in the way disclosed. Furthermore, the requirement according to present Claim 1 that the location clutch is "mounted on the frame portion" does not result from a simple design choice as regards the position of the clutches. Finally, D2 contains no teaching which would act as an incentive to the skilled person to change the arrangement of the clutches.

2.4 The Board therefore concludes that the subject-matter of Claim 1 is not rendered obvious by the cited prior art and so involves an inventive step within the meaning of Article 56 EPC. Since Claims 2 to 5 contain all features of Claim 1 this finding applies equally to those claims.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

S. Fabiani

S. Crane