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**Datasheet for the decision
of 24 April 2026**

Case Number: T 0040/25 - 3.4.01

Application Number: 19156900.3

Publication Number: 3517169

IPC: A61N1/36, A61N1/372

Language of the proceedings: EN

Title of invention:

MRI-SAFE DISK MAGNET FOR IMPLANTS

Patent Proprietor:

MED-EL Elektromedizinische Geräte GmbH

Opponents:

Advanced Bionics AG
Advanced Bionics Benelux B.V.

Headword:

MRI-safe magnet / MED-EL

Relevant legal provisions:

RPBA 2020 Art. 13
EPC Art. 123(2), 76(1), 52(1), 56

Keyword:

New Main Request - admission (yes) - added matter (no) -
inventive step (yes)



Beschwerdekammern

Boards of Appeal

Chambres de recours

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Case Number: T 0040/25 - 3.4.01

D E C I S I O N
of Technical Board of Appeal 3.4.01
of 24 April 2026

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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted/
electronically transmitted on 11 December 2024
concerning maintenance of the European Patent
No. 3517169 in amended form.

Composition of the Board:

Chair	P. Scriven
Members:	T. Petelski
	L. Bühler

Summary of Facts and Submissions

- I. The opposition concerned a divisional application. Indeed, it is the third in a chain of multiple applications, the first three elements of this chain being:
1. the "grandparent" application 11717431 (published as EP 2 560 730);
 2. the "parent" application 16189856 (published as EP 3 138 605);
 3. the application 19156900 which resulted in the patent in suit (published as EP 3 517 169).
- II. The Opposition Division admitted Auxiliary Requests 1 to 46 into the proceedings and decided that the patent could be maintained in amended form, on the basis of Auxiliary Request 43 before it.
- III. In its interlocutory decision, the Opposition Division found the following:
- (a) The intervention (by Opponent 2), filed during the opposition proceedings, was admissible.
 - (b) Document D44 should be admitted into the proceedings.

- (c) The claims of each of the Main Request and Auxiliary Requests 1 to 42 contained subject-matter that extended beyond the content of the application, as well as of the parent and grandparent applications, as originally filed.
- (d) The objections to Auxiliary Request 43, of extension beyond the content of the application, parent application, and grandparent application; of lack of clarity; of insufficient disclosure; and of lack of inventive step were not made out.

IV. Opponent 1 (Advanced Bionics AG) and Opponent 2 (Advanced Bionics Benelux) both appealed this decision. They requested that it be set aside and the patent revoked. Both also conditionally requested oral proceedings.

V. The opponents referred to documents D1 to D67 from the opposition proceedings, of which the appealed decision cites the following:

D1: WO 03/081976 A2
D2: US 7,266,208 B2
D3: US 2009/0005836 A1
D8: US 6,348,070 B1
D11: US 6,761,681 B2
D17: WO 03/092326 A1
D19: US 7,266,209 B1
D32: Dissertation of Christian Teissl,
"Cochlear Implants and Magnetic
Resonance Imaging: Compatibility and
Safety Aspects", October 1998
D44: WO 2008/109800 A1

D55: WO 2011/011409 A1

D56: WO 2004/114723 A2

D67 US 2006/0244560 A1

VI. On appeal, the opponents submitted the following additional documents:

D68: Decision in T 0168/24, *MRI-Safe Implantable Disk Magnet /MED-EL*, in relation to European patent EP 3 138 605, resulting from the parent application

D69: H. Semat and R. Katz "Physics, Chapter 29: The Magnetic Field", Robert Katz Publications 153 University of Nebraska - Lincoln (1-1958)

D70: M.A. Riley et al. "Overview Magnets in medicine", Materials Science and Technology Vol.18 1 (January 2002)

D71: US 4,994,019 A

D72: US 2008/0312500 A1

VII. The proprietor also appealed the decision. They requested that it be set aside and the patent maintained in amended form on the basis of either the Main Request or one of Auxiliary Requests 1 to 46 of the opposition proceedings. Further, they argued that documents D69 to D72 should not be admitted into the proceedings.

- VIII. The proprietor conditionally requested that oral proceedings be held. They further requested that the appeal proceedings be accelerated because of pending infringement proceedings before courts in Germany and The Netherlands.
- IX. The Board rejected the request for acceleration, because it understood that the infringement proceedings were no longer pending at the time of its reply.
- X. After all parties had filed their statement of grounds of appeal, the opponents both withdrew their appeals and oppositions.
- XI. In a communication annexed to the summons to oral proceedings, the Board informed the appellant, now the only remaining party to the proceedings, of its preliminary opinion, according to which:
- (a) Claims 1 and 12 of the Main Request defined subject-matter that extended beyond the content of the application, the parent application, and the grandparent application as filed (Articles 123(2) and 76(1) EPC).
 - (b) The subject-matters of claim 1 of each of Auxiliary Requests 1 to 42 also extended beyond the content of the application, the parent application, and the grandparent application as filed (Articles 123(2) and 76(1) EPC).
 - (c) Due to the opponent's withdrawal of their appeals, the Board had no power to review the Opposition

Division's decision on Auxiliary Request 43, and, hence, also not on the lower ranking auxiliary requests (prohibition of reformatio in peius).

- XII. In response to the Board's communication, the proprietor withdrew their Main Request and Auxiliary Requests 1 to 35 and 37 to 46 and filed a "New Main Request", a "New Auxiliary Request 1", and maintained Auxiliary Request 36 as "New Auxiliary Request 2".
- XIII. During oral proceedings, the proprietor confirmed their previously filed requests and explained that their withdrawal of Auxiliary Request 43, which the Opposition Division had held to be allowable, did not imply a disagreement with the text of the patent in the version underlying the Opposition Division's interlocutory decision, but merely anticipated that their appeal would have to be dismissed if none of the higher ranking requests were allowed.
- XIV. The proprietor's final requests were that the decision be set aside and that the patent be maintained in amended form on the basis of one of the sets of claims of the New Main Request or of New Auxiliary Requests 1 and 2, all filed on 24 March 2026.
- XV. The single claim of the New Main Request reads (reference signs omitted):

An implantable system for a recipient patient, said implantable system being one of a cochlear implant system, a middle ear

implant system, or a vestibular implant system, and comprising a magnetic arrangement, the arrangement comprising:

a planar coil housing containing a signal coil for transcutaneous communication of an implant communication signal;

a first attachment magnet within the plane of the coil housing, rotatable only in said plane of the coil housing, and having a magnetic dipole parallel to the plane of the coil housing for transcutaneous magnetic interaction with a corresponding second attachment magnet, wherein the coil housing is an implant coil housing for implantation under the skin of the patient and wherein the signal coil is a receiver coil,

wherein said implant coil housing has a flat bottom so that there is no need to drill a recess into the bone during implantation,

wherein said first attachment magnet has a non-spherical shape allowing said implant coil housing to have said flat bottom.

Reasons for the Decision

The application as originally filed

1. According to the application as originally filed, the invention concerned an implantable medical device, such as a cochlear implant (see paragraph [0002]). Often, the implanted portion of such a device was in communication with an external part, which was held in position on the skin of the patient, above the implanted part, by attachment magnets. It was known to use attachment magnets that had their dipole axes oriented perpendicularly to the skin. A problem could arise, when the patient underwent an MRI (magnetic resonance imaging) examination. Unfavourable alignment of the attachment magnet in the implant with the static magnetic fields of the MRI device could, inter alia, displace the implant and damage the surrounding tissue (paragraph [0004]).
2. According to the application, the most convenient and the safest existing option to avoid such problems was the use of a spherical magnet, which could freely rotate in order to align with the external magnetic field. Considering the (implicit) fact that the magnet needed to have a certain volume in order to achieve the necessary attachment force, the spherical magnet was of a size that required a housing with a bump at its bottom surface, which necessitated the preparation of a recess in the bone beneath the implant (paragraph [0005]).
3. The invention aimed at providing a magnet arrangement for an implantable system that was compatible with MRI systems (paragraph [0027]) and facilitated a flatter

housing than needed for spherical magnets, without any bump at its bottom surface (paragraph [0042], and implicit from paragraph [0005]).

4. The central idea of the invention was to use an attachment magnet that had its dipole axis oriented parallel to the plane of the coil housing, and that was rotatable within that plane (paragraph [0006]). The rotation was intended to allow the dipole to align, at least partially, with the magnetic field of an MRI device. If the angle between the MRI device's magnetic field and the plane of rotation could be kept small, the torque acting on the implant could be substantially reduced in comparison to the situation with the dipole oriented perpendicularly to the skin.
5. The skilled person understands, from the application, that the invention, at least partially, combines the advantage of alignment to an external field with that of the flat housing allowed by the use of thin magnets.

New Main Request - admission

6. The Board used its discretion and admitted the New Main Request into the proceedings (Article 13 RPBA). In view of the following, the Board concluded that the factors in favour of admission outweighed those against:
 - (a) The procedural situation was considerably simplified by the simultaneous withdrawal of the previous Main Request and most of the auxiliary requests.
 - (b) The situation was further simplified by the deletion of all dependent claims.

- (c) The amendments to claim 1 were, prima facie, suitable to overcome the objections to claim 1, without adding matter or raising new problems.
- (d) There were no other parties to the proceedings that could be negatively affected by the admission.

New Main Request - added matter

- 7. The opponents raised a number of objections of added matter to various of the previous requests. Some of them need to be considered in respect of the New Main Request.
- 8. The main objections that were raised by the opponents, and, in part, followed by the Opposition Division and the Board (in its preliminary opinion), were that the claims then in the proceedings contained unallowable generalisations, for which there was no basis in the application as filed. In particular, the objections concerned the generalisations to more than a single axis of rotation of the magnet, to magnet shapes other than the specific ones mentioned in the application, to implants destined for other locations than the skull, and to the causal relations between the magnets' shapes, the shape of the bottom of the housing, and the need to drill a recess into the bone.
- 9. Given that current claim 1 defines the implant system as a cochlear, inner ear, or vestibular type (based on paragraph [0010] of the application as filed), and the magnet as being rotatable only in the plane of the coil housing (based on paragraphs [0040], [0031] and [0036]), the objections relating to the absence of these definitions no longer apply.

10. Regarding the objections relating to the type of magnet and to the relationship between its shape, the bottom of the housing and the need to drill a recess into the bone, the Board does not consider them to be persuasive, as will be explained below.

11. According to claim 1, the attachment magnet of the implant is

*... within the plane of the coil housing,
rotatable only in said plane of the coil
housing, and having a magnetic dipole
parallel to the plane of the coil
housing*

12. The skilled person understands that magnetisation in the same plane in which the magnet is free to rotate will allow the dipole of the magnet to align, at least partially, with an external magnetic field, as long as the field is not oriented perpendicularly to the magnet's dipole. It is immediately apparent that this freedom of alignment is of advantage for the patient during MRI examinations, in which the static field is normally not oriented perpendicularly to the plane in which the magnet can rotate. It is also immediately clear that the freedom to rotate in only one plane does not require the same spherical shape of the magnet that would be required for an unrestricted rotation. Hence, the magnet's ability to rotate only in the plane of the housing, which is the same plane in which the magnet is magnetised, already conveys the main idea of the invention.

13. It is within this context that the last part of claim 1 would be understood, which defines that

... said implant coil housing has a flat bottom so that there is no need to drill a recess into the bone during implantation,

wherein said first attachment magnet has a non-spherical shape allowing said implant coil housing to have said flat bottom.

14. While it is true that, without context, there may be no definite connection between the shape of the magnet, the shape of the bottom of the coil housing, and the need to drill a recess into the bone, the remainder of claim 1 provides the skilled person with sufficient context to recognise these connections.
15. The fact that the implant is a cochlear, middle ear, or vestibular implant means that it is implanted in the restricted space between skin and skull behind the ear of a patient. Therefore, the skilled person would understand that the housing is to be as thin as possible. Furthermore, the bone curvature at this location is so small that the housing can have a flat-bottomed surface, at least across the size of the coil. It should also have a flat or smooth top surface, in order to avoid skin irritation and ensure the impact resistance that is required by the respective standards for those implants.
16. The thickness of the coil is typically unproblematic; however, the thickness of the magnet could be the limiting factor for the thickness of the housing, considering that the magnet requires a certain minimum volume in order to provide the required attachment force.

17. The skilled person understands that the reference to the "non-spherical" shape of the magnet, which allows the housing to have a flat bottom, is meant to stand in contrast to a (freely rotatable) spherical magnet, which would require a bump in the bottom of the housing, thereby necessitating the drilling of a recess into the bone.
18. The magnet's ability to rotate, defined in claim 1 as only within one plane, means that - unlike the spherical shape required for unrestricted rotation - a magnet with a flat shape can be used. Such a magnet allows for a flat housing, without a bump on the bottom, which can be implanted without having to drill a recess into the bone. Therefore, the connection between the magnet's shape, the bottom of the housing and the need to drill into the bone follows naturally from the understanding of the preceding features of claim 1.
19. The application as filed conveys the same teaching regarding the shape of the magnet and the connections between the shape, the bottom of the housing and the need to drill the bone as expressed in claim 1. Paragraph [0005] describes why a spherical magnet requires a bump in the bottom of the housing and the drilling of a recess into the bone. By restricting the rotational freedom to the plane of the housing, and by providing a magnetisation parallel to this plane, the invention retains a partial alignment capability. This obviates the sole reason for a thick spherical magnet and the sole reason for drilling a recess into the bone (see paragraph [0042]). The application is clear in that the exact shape of the magnet is of no relevance for the invention and that the specific shapes mentioned therein are purely exemplary (see mainly

paragraph [0036]; but also paragraphs [0009], [0029], and [0040]).

20. It follows that claim 1 defines all features essential for the invention and that the application as filed contains a clear and unambiguous disclosure for this subject-matter. Therefore, the requirement of Article 123(2) is met.
21. The descriptions of the grandparent and parent applications are similar to that of the present application as filed, with the exception of the fact that the claims of the grandparent application are included in the description of the parent application. Therefore, the requirement of Article 76(1) EPC is also met.
22. Hence, the ground for opposition of added matter does not stand in the way of a maintenance of the patent in the form of the New Main Request.

New Main Request - Sufficiency of disclosure

23. Both opponents argued, in their statements of grounds, that "claim 1 [of Auxiliary Request 43] could only be considered sufficiently disclosed if feature F2.2 were to be limited to the implant attachment magnet being rotatable only in the plane of the coil housing (but this limitation is not present in claim 1)." Since this limitation has been introduced in present claim 1, the objection no longer applies.
24. Since the Board has no other objection, either, the ground for opposition of insufficient disclosure does

not stand in the way of a maintenance of the patent in the form of the New Main Request.

New Main Request - inventive step

25. During opposition and appeal proceedings, the following attacks of lack of inventive step were raised with respect to different versions of claim 1:

- (a) Starting from D32, considering the common general knowledge, or in combination with any one of D2, D11, D19, D44, D71, and D72 (the latter two in view of D70).
- (b) Starting from D44, considering the common general knowledge, or in combination with any one of D2, D3, D11, D56, D67, D71, and D72 (the latter two in view of D70).
- (c) Starting from D2, considering the common general knowledge, or in combination with any one of D1, D8, D32, and D44.
- (d) Starting from D1, considering the common general knowledge, or in combination with any one of D2, D71, and D72 (in view of D70).
- (e) Starting from D3, in combination with any one of D1, D8, D11, D32, and D44.
- (f) Starting from D17, in combination with any one of D1, D8, and D32.
- (g) Starting from D55, in combination with any one of D1, and D44.

26. Various other documents were referred to as evidence of the common general knowledge, at various stages of the opposition and appeal proceedings. However, there is no need to enter into those details, in this decision.
27. The prior art contains various solutions to the problem of improving the MRI safety of cochlear, inner ear, or vestibular implants, by reducing or eliminating the torque exerted on the implant's attachment magnet by external magnetic fields. The solutions are as follows:
- (a) Omitting the attachment magnet altogether by attaching the external part to the ear (D8: column 3, lines 1-8; D32: page 125, point 1.1).
 - (b) Providing a magnet that is removable from the implant through a small incision in the skin before an MRI examination (D1: page 2, lines 9-11; D8: column 3, lines 9-18; D17: page 2, lines 32-36; D32: page 126, point 1.2; D44: paragraphs [0006] and [0007]; D55: paragraph [0005]);
 - (c) Arranging magnets with antiparallel magnetisations next to each other, to create a compensation effect (D1: page 2, lines 15-19; D8: column 3, lines 55-59; D32: page 126, point 1.3; D55: paragraphs [0008], [0018], and [0022]).
 - (d) Using a fully rotatable spherical magnet or a cylindrical magnet that is rotatable about its symmetry axis, or several smaller magnets (D1: page 8, lines 1-13 and 20-23, and the corresponding passages in the family member D67; D44: paragraphs [0008] and [0009], with reference to D67; D55: paragraph [0005], with reference to a family member

of D67 and D1 - but one that has not been cited in these proceedings).

- (e) Reducing the weight of the external part, which allows the use of a smaller, weaker internal attachment magnet (D32: page 126, point 1.4).
- (f) Using a magnet that inherently aligns its magnetisation with an external field, such as a ferrofluid (D1: page 5, lines 8-10) or a magnet made of a soft magnetic material (D1: page 2, lines 15-19; D8; D32: page 127, point 1.5).
- (g) Anchoring the magnet to a part of the body, such as a bone. This does not reduce the torque, but it does prevent any movement of the magnet that could lead to tissue damage (D17: page 3, lines 25-27; page 5, lines 31-33; and page 11, lines 9-11).
- (h) Using a combination of the above, such as a sphere or cylinder that aligns with the external field but can also be removed (D44: paragraphs [0010] and [0020]).

28. The only document that discloses specific solutions of magnets which align with an external magnetic field through rotation (solution (d)) is D1 (and its family member D67). References to rotatable magnets in the other documents either relate to a member of the D1 patent family, as in D44 and D55, or briefly mention the possibility of magnet alignment with an external field without giving any details, as in D8 (column 3, line 66, to column 4, line 3) and in D32 (page 127, point 1.5). In view of the prior art known at the respective filing and publication dates of D8 and D32, it can be assumed that these alignments refers to

either an internal alignment of a magnet made of a soft magnetic material (solution (f)) or a rotatable sphere or cylinder as disclosed in D1 (solution (d)).

29. In D1 (and its family members), the only specific embodiments of magnets that can at least partially align their dipole axis to an external magnetic field are a sphere that is freely rotatable, a cylinder that is rotatable about its symmetry axis lying in the plane of the housing, parallel to the skin, or several smaller magnets of similar shapes (see page 8, lines 1 to 23; page 10, lines 28-30; page 12, lines 18-20; and Figures 3, 4A, 8A, and 9). In the case of a cylinder, the magnetisation axis is perpendicular to its axis (page 8, line 8, and page 12, lines 23-24). Although D1 says that the magnet "may be of a variety of shapes" (page 8, line 6), such other shapes would, implicitly, have the same combinations of magnetisation and the ability to rotate as the sphere or the cylinder. This means that none of them would be able to rotate only in the plane of the housing and a magnetisation parallel to this plane.
30. Accordingly, the subject-matter of claim 1 differs from the state of the art at least in that the attachment magnet is rotatable only in the plane of the housing and has its magnetic dipole parallel to this plane.
31. The technical problem lies in providing a magnet arrangement that enables a good compromise between MRI safety (by an adjustment to an external magnetic field) and convenient implantation (a sufficiently flat shape that does not require drilling a recess into the bone).
32. None of the cited documents provides a solution that would point towards the one defined in claim 1.

33. Some of the cited documents disclose a flat, e.g. disc shaped, magnet that is magnetised parallel to the plane of the housing in which the magnet resides. This direction of magnetisation is mostly chosen if a certain alignment between the external and internal parts of the implant is desired. This usually means that the internal magnet is fixed with respect to its housing, and possibly even with respect to the body of the patient.
34. Examples of magnetisation directions used for this purpose can be found in D2, in which a certain orientation of the microphones in the external part is desired (D2: column 6, lines 24-46); in D11, in which the intake and exit conduits in the external and implanted parts of a transcutaneous connection need to match (D11: column 2, lines 25-52, and column 3, lines 18-23); in D19, in which a driver in the external part needs to be positioned in a well-defined place on the tissue (D19: column, lines 59-67); and in D71, in which the controlled rotational position of one magnet influences the attraction force and distance to a second magnet for the purpose of controlling the flow of fluid through a tube arranged between the two magnets in an artificial sphincter. A comparable situation to that in D71 is present in D72, in which the rotational position of a camera that is fixed to the inside of the abdominal wall of a patient is controlled by the respective position of an external magnet. None of these documents is related to MRI safety, and they all point away from a freely rotatable magnet.
35. The other documents, cited by the opponents, are even less relevant.

36. Although the Board recognises the skilled person's motivation to achieve an even better compromise between MRI safety and ease of implantation, none of the cited documents contains a pointer to the particular combination of a magnet that is rotatable only in the plane of its housing and has a magnetisation direction parallel to this plane.
37. Even if, for whatever reason, the skilled person had considered substituting the magnet in one of the starting documents, such as D1, with a plate-shaped magnet that is magnetised within the plate's plane, they would not have arrived at the invention as defined in claim 1. In that case, the skilled person would also have had to provide for a rotation in this plane only (which is also the plane of the housing). There was no precedent for this. Therefore, even a combination of any two or more of the cited documents cannot lead to the invention as defined in claim 1.
38. Hence, the subject-matter of claim 1 involves an inventive step (Articles 52(1) and 56 EPC).

Conclusion

39. As the objections relating to added matter, sufficiency of disclosure, and lack of inventive step either do not apply or are not persuasive, and as there were no other objections to claim 1 of the New Main Request and the Board has none either, the New Main Request is allowable.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the Opposition Division with the order to maintain the patent with claim 1 of the New Main Request, filed on 24 March 2026, and the description and drawings of the patent specification.

The Registrar:

The Chair:



D. Meyfarth

P. Scriven

Decision electronically authenticated