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Veröffentlichung im Amtsblatt	Ja/Nein
Publication in the Official Journal	Yes/No
Publication au Journal Officiel	Oui/Non

Aktenzeichen / Case Number / N° du recours : T 67/89-3.5.1

Anmeldenummer / Filing No / N° de la demande : 83 903 150.7

Veröffentlichungs-Nr. / Publication No / N° de la publication : WO 84/01 479

Bezeichnung der Erfindung: Signal Reproduction Apparatus
Title of invention:
Titre de l'invention :

Klassifikation / Classification / Classement : H04H 1/00, 5/00; H04B 7/26, 7/155// H04B 1/034, 1/08; H05K 5/00

ENTSCHEIDUNG / DECISION

vom / of / du 23 January 1990

Anmelder / Applicant / Demandeur : SAUNDERS, Stuart, David

Patentinhaber / Proprietor of the patent /
Titulaire du brevet :

Einsprechender / Opponent / Opposant :

Stichwort / Headword / Référence :

EPÜ / EPC / CBE Article 56 EPC

Schlagwort / Keyword / Mot clé : "Inventive Step (no)"

Leitsatz / Headnote / Sommaire

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Case Number : T 67/89-3.5.1

D E C I S I O N
of the Technical Board of Appeal 3.5.1
of 23 January 1990

Appellant : SAUNDERS, Stuart, David
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Representative : Mr. FRANKLAND
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Decision under appeal : Decision of Examining Division 057 of the European Patent Office dated 9 September 1988 refusing European patent application No. 83 903 150.7 pursuant to Article 97(1) EPC

Composition of the Board :

Chairman : P.K.J. van den Berg
Members : W. Riewald
J. Stephens-Ofner

Summary of Facts and Submissions

I. European patent application No. 83 903 150.7 was filed as an international application with the application No. PCT/AU83/00140 on 4 October 1983 claiming priorities from 6 applications in Australia with the priority dates 04.10.82, 02.12.82, 08.12.82, 28.03.83 and 31.03.83.

The application was refused by a decision of the Examining Division dated 9 September 1988. The decision was based on Claims 1 to 10 received on 29 October 1987 with letter of 26 October 1987.

The reason given for the refusal was that the subject-matter of Claim 1 lacked an inventive step having regard to the prior art known from the following documents:

D1: US-A-3 590 382
D2: JP-A-55-121 748
D3: JP-A-55-557 00
D4: US-A-3 943 564
D5: US-A-2 923 370

The Examining Division considered that the apparatus of Claim 1 resulted from an obvious modification of a known wired stereo system (exemplified by D4 and D5) having central control of volume and tone etc. whereby the wires to the reproduction devices were replaced by "wireless" transmission means as known from document D1. It was stated that a suggestion made by the Primary Examiner of the Examining Division, to restrict the request for a patent to the embodiment using wireless transmission not only for the sound signals but also for control signals, as specified in Claim 7, was not taken up by the Applicant.

II. The Applicant filed a notice of appeal on 18 November 1988 and paid the appeal fee on the same day.

A Statement of the Grounds of Appeal was received on 19 January 1989 together with slightly amended claims including an additional method Claim 11. A combination of Claims 1 and 7 was expressly declined.

In a communication, accompanying summons for oral proceedings and dated 3 October 1989, the Rapporteur expressed the provisional opinion that the refusal of the application by the Examining Division on the ground of lacking inventive step was justified. The Appellant's attention was drawn to the fact that some of his arguments brought forward in support of inventive step were not based on features derivable from Claim 1. The suggestion of the Examining Division to restrict the independent claim by the features of Claim 7 was also taken up by the Rapporteur.

With letter of 22 December 1989 and in preparation of the oral proceedings, the Appellant maintained, for the time being, the unaltered claims as a main request, but filed as Auxiliary Requests I and II new sets of Claims 1 to 7 or 1 to 3, respectively, together with amended pages of the description.

III. Oral proceedings were held on 23 January 1990.

The Appellant started with making his Auxiliary Request I the main request with only a slight linguistic amendment.

A product in accordance with the features specified in the claims was demonstrated during the hearing. The Appellant put particular emphasis on the completely cordless design of the "first portable housing means" which derived its power from a built-in battery.

After the Board had indicated that it intended to dismiss the appeal on the basis of the main request (= amended Auxiliary Request I of 22.12.89), the Appellant fell back on his "Auxiliary Request II" and was prepared to incorporate a feature specifying the "selfpowered property" of the transmitting means in the first portable housing means.

IV. Thus, at the end of the hearing the Appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of a Main Request, being the aforesaid Auxiliary Request II amended by the insertion of "selfpowered" after the words "characterised in that" in Claim 1, or of an Auxiliary Request, in which Claim 1 above is further limited by the insertion of "selfpowered" before the word "receiver" in line 13 of Claim 1.

V. Claim 1 reads as follows (amendment according to the auxiliary request in brackets):

"A portable wireless sound reproducing system comprising first portable housing means; sound signals receiving means disposed in said first portable housing means for receiving sound signals from any suitable source; sound signal control means disposed in said first housing means and connected to said sound signal receiving means for controlling and processing the sound signals received thereby into a signal suitable for transmission; second portable housing means (27) movable relative to said first housing means; characterised in that selfpowered signal transmitting means are disposed in said first housing and connected to said control means for wireless transmission of said signal and (selfpowered) receiver means are disposed in said second portable housing means (23,24) for receiving said signal transmitted by said transmitting

means and speaker means in said second portable housing means connected to said receiver means for converting said signal into an audio signal and broadcasting said audio signal wherein said control means in said first housing controls the output of said speaker means."

VI. The Appellant's arguments can be summarised as follows:

It is acknowledged that the replacement of the transmission wires for the sound signals between a central unit and the sound signal receiving means by wireless transmission means was known from D1. However, whereas D1 aims at facilitating the portability of the sound reproducing devices by making them cordless, the present application aims at constructing a central unit ("first portable housing means") that can easily be carried by the listener to the optimum point in relation to the sound reproducing devices (in particular in a stereo-arrangement) without the inconvenience of any wires which would obstruct free movement in the room.

According to D1, the central units 11 and 12 (sound source and transmitter device) are connected by a cable to the mains. Only the sound reproducing devices 13 and 14 are selfpowered and, in accordance with the concept to use them outside the room where the central unit is located, provision is made to control intensity and balance at the sound reproducing devices, and not at the central unit. In the Appellant's view, such a concept would discourage the skilled person from applying wireless transmission for conventional stereo systems with both central unit and loudspeakers within the same room. He would regard the volume and balance control at the loudspeakers extremely inappropriate for his purposes. The fact that the prior art developed in a considerably different manner is emphasised by the disclosure of the documents D2 and D3 which show further developments of the wireless transmission concept.

D2 deals with complicated additional remote control means via the power line in order to change over between different sound sources at the location of the central unit without having to go to it. D3 discloses separable tape recorder and tuner units each provided with a fixedly associated speaker. Both units can be used singly in a monoral mode. However, in case of tape stereo reproduction with separated units, the L signal is emitted via the tape recorder speaker whereas the R signal is emitted by the tuner speaker, both units being connected via a wireless transmission line for the R signal.

The Appellant argues that, at the time the application was made, the teachings of documents D1 to D3 were thought to be the optimum in respect of the application of wireless transmission of the sound signals between central unit and speakers. However, these prior art concepts lacked any commercial success. By contrast, the Appellant has presented to the Board industry accolades for his product, trial orders and awards from a number of exhibitions, so that the commercial success of the claimed system would, he argued, be firmly expected, indeed predicted.

He also argued, that the fact that the industry had failed to produce a successful wireless transmission system, and that the subject of the appeal was invented by a person "outside" the industry should be taken as supporting the acknowledgement of an inventive step.

Reasons for the Decision

1. The appeal is admissible.

2. Novelty

2.1 In terms used in the present Claim 1 a conventional stereo sound-reproducing system can be said to comprise: first housing means in which receiving means are disposed for receiving sound signals from any suitable source; Sound signals control means disposed in said first housing means, and connected to said sound signal receiving means for controlling and processing the sound signals in a signal suitable for transmission to second housing means, comprising speaker means for converting the sound signal into an audio signal and broadcasting the audio signal. The control means in the first housing controls the output of the speaker means. The first and second housing means can be made "portable". Examples of such signal reproducing means are disclosed in D4 and D5.

2.2 In a conventional sound reproducing system, the transmission of the sound signals from the first housing means and their reception by the second housing means is effected by wires connecting the first with the second housing means.

2.3 The sound reproducing system as specified in Claim 1 differs from these conventions systems in the following manner:

- the transmission of the sound signals is wireless which requires appropriate transmitting means and receiver means in the first or second housing means, respectively;
- the transmitting means and, optionally according to the auxiliary request, the receiver means, are selfpowered.

2.4 A wireless stereo sound reproducing system is, indeeed, known from D1. It differs, however, from the more conventional design by the preferred provision of the sound

signal control means at the second housing means comprising the speaker means (D1: column 4, lines 72 to 75). The subject-matter of the present Claim 1 follows, however, in this respect the conventional arrangement with the sound signal control means at the first (central) housing means.

Furthermore, the wireless sound reproducing system of D1 differs from the claimed system by the fact that the signal transmitting means in the first housing means are not selfpowered; they are powered from the mains (see the connector 25).

2.5 Consequently, the subject-matter of Claim 1 (main request or auxiliary request) is considered to be novel.

3. Inventive Step

3.1 There is no doubt that, in a conventional stereo sound reproduction device, the necessary wired connection between the central unit and the speakers causes some inconvenience. Therefore, the skilled person coming across the document D1 will immediately understand that it offers a general concept to overcome this inconvenience: the wireless transmission of the sound signals to the speakers.

It is true that D1 refers in column 1, line 70 to column 2, line 6 to examples in which the sound signal source and the speakers are located in different rooms or at otherwise distant places, so that the listener, who is located near the speakers and distant from the sound signal source (in the example: a tape recorder), clearly wishes to be able to control the sound at the location of the speakers as suggested in column 4, lines 72 to 75.

This, however, cannot be regarded as a prejudice against also applying the wireless concept in cases in which the sound signal source and the speakers are located in the same room, is as the customary practice. In such a case, the wish to maintain the control means at the sound signal source (the "first housing means" of the present application) obviously arises from the usual practice with conventional stereo speakers.

The Board appreciates that, in view of the necessary installation of amplifier means in the receiver means associated with the second housing means (containing the speakers), the volume control at the first housing means requires additional considerations in order to conceive a viable realisation of the system. In particular, the quality of sound reproduction depends crucially on the details of such a wireless transmission system. However, in the absence of further features specifying such details in the claim, any quality arguments of the Appellant cannot be regarded as supporting inventive step. Claim 1 relates only to the obviously desirable requirement to control the system at the central unit and does not provide details which serve to meet this requirement. Claim 7, received on 29.10.87 and now abandoned, specified a possibility by suggesting the transmission of control signals together with the sound signals in order to control controlling means in the receiving means associated with the speakers. The Appellant declared that he had declined the offer to incorporate these features in Claim 1, because the product he planned to commercialize did not use this concept.

3.2 The "selfpowered" design of the signal transmitting means and (optionally) of the "receiver means" can be seen in narrow relation to the specification of the housing means as being portable. In fact, when D1 discloses that portable receiving stations without a wired connection to a central

unit may be carried to a picnic table remote from an automobile (cf. D1, column 1, lines 3 to 6 and column 2, lines 3 to 6), then it must implicitly be understood that the receiving stations are selfpowered.

The Board has clearly appreciated that D1 does not disclose a selfpowered transmission unit. The transmitter device 12 is connected through a connector 25 to a source of standard voltages, such as 115 Volt AC (column 2, lines 7 to 11). However, the power supply of audio equipment by built-in batteries is such a commonly known possibility to allow an allocation of the equipment independently of any mains supply, that the "selfpowered" design of any component in this technical field can readily be envisaged by a skilled person. No inventive step can, therefore, be perceived in the idea to make the central unit of D1 also easily portable by using an incorporated battery as power source.

3.3 From the foregoing it is clear that the benefits of the claimed subject-matter are achieved by the application of features which are already known from the prior art and their respective properties. Any surprising or additional benefits (which possibly might be the cause of any commercial success) would depend on features not specified in the independent claim. In particular, the Sound-quality of the transmission is dependent on the wireless transmission technique used which is completely left open in the claim.

The Appellant's arguments relating to the commercial interest in the product and to the awards given to the product can therefore not be taken into account.

3.4 Thus, the subject-matters of Claim 1 according to the main request or to the auxiliary request, respectively, are despite the fact that the industry has not produced any of

them as stated by the Appellant, in the opinion of the Board, obvious to a person skilled in the art and not to be considered to involve an inventive step within the meaning of Article 56 EPC. Claims 1 are, therefore, not allowable under Article 52(1) EPC.

Order

For these reasons, it is decided that:

The appeal is dismissed

The Registrar

M. Beer

The Chairman

P.K.J. van den Berg