DECISION
of 6 December 2000

Case Number: T 1121/98 - 3.5.1
Application Number: 91309770.5
Publication Number: 0484037
IPC: H04N 5/645

Language of the proceedings: EN

Title of invention:
Television receiver

Patentee:
MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

Opponent:
Interessengemeinschaft für Rundfunkschutzrechte GmbH
Schutzrechtsverwertung Co.KG

Headword:
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Relevant legal provisions:
EPC Art. 56, 100a, 114(2)

Keyword:
"Late filed documents (not admitted)"
"Inventive step (no)"

Decisions cited:
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Catchword:
-
DECISION
of the Technical Board of Appeal 3.5.1
of 6 December 2000

Appellant: Interessengemeinschaft für Rundfunkschutzrechte GmbH
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Decision under appeal: Interlocutory decision of the Opposition Division of the European Patent Office posted 1 October 1998 concerning maintenance of European patent No. 0 484 037 in amended form.

Composition of the Board:
Chairman: P. K. J. van den Berg
Members: A. S. Clelland
H. Preglau
Summary of Facts and Submissions

I. European patent No. 484 037 was opposed by the present appellant, *inter alia* on the ground that the claimed subject-matter lacked an inventive step having regard to the following documents:

D1: US-A-4 360 838

II. In its decision the Opposition Division found that the patentee's main request, and first and second auxiliary requests, were not allowable *inter alia* on the ground that claim 1 of each request lacked an inventive step having regard to the disclosure of D1. A third auxiliary request was held to be allowable and the patent was maintained on the basis of this request.

III. The appellant (opponent) has appealed against this decision and requests revocation of the patent. In the statement of grounds of appeal it is argued that the Opposition Division erred in holding that the prior art did not disclose the provision of a television cabinet having a surround for the tube which is gradually reduced in thickness from an end in communication with a wall of the cabinet towards its free end. The appellant argued that D1 disclosed at Figure 5 a lip 86, the end portion of which was thinner than the portion in communication with the cabinet wall. The appellant also argued that the form of the cabinet claimed in the third auxiliary request was known *per se* from television receiver No. 7171 manufactured by Nokia Graetz; as evidence the following documents were offered:

D4a: Invoice No. 918125 of 10 October 1990 from Nokia
Unterhaltungselektronic GmbH, Postfach 1720, Östliche 132 7530 Pforzheim; and


The appellant also cited:


IV. The respondent (patentee) argued that the claims accepted by the Opposition Division were novel and inventive with respect both to the prior art discussed before the Opposition Division and that newly cited. The respondent also questioned whether D4 and the associated documents were admissible having been late-filed and failing to disclose characterising features of claim 1; an apportionment of costs in the event that the Board would admit the newly cited material was requested. With respect to D1 it was argued that even if any tapering of the tube surround could be derived from Figure 5 of D1 this in no way indicated a gradual tapering to the extent required by claim 1 of the third auxiliary request.

V. In response to a communication from the Board, appointing oral proceedings, the respondent filed revised sets of claims of main, first and second auxiliary requests.

VI. The oral proceedings were held on 6 December 2000. At the commencement of these proceedings the respondent withdrew the claims filed in response to the
communication and filed claims of new main, first and second auxiliary requests; it was explained that the new claims were corrected versions of those previously submitted.

VII. Claim 1 is identical in all three requests and reads as follows:

"A television receiver including a cabinet (10) having a window (A) and front window frames (10a, b, c, d) which surround said window (A), wherein a portion of each window frame is formed to be elastically deformable outwardly due to contact between the cathode ray tube (8) and the cabinet when assembling them, and a variation in a dimensional relationship between the cabinet and the cathode ray tube caused when positioning the cathode ray tube within the cabinet is compensated for by the elastic deformations of the window frames, characterised in that said window frames are an integral part of wall portions of the cabinet, in that each of the front window frames (10a, b, c, d) is gradually reduced in thickness from its proximal end portion (10A) in communication with a wall of the cabinet (10) towards its free end (10B), in that the cathode ray tube is assembled with the cabinet by means of fixing brackets (9) on the cathode ray tube, and in that a variation in position of the brackets (9) on the cathode ray tube is compensated for by the elastic deformation of said portion of the window frames."

Claim 2 of the main request has the same preamble as claim 1 and the following characterising part:

"characterised in that said window frames are an integral part of wall portions of the cabinet, in that
said elastically deformable portions of the window frames comprise material (13) which is softer than the material of the cabinet body and is formed integrally with the cabinet walls (10) by moulding and is provided on inner sides of the window frames (10a, b, c, d) facing, the cathode ray tube face, in that the cathode ray tube is assembled with the cabinet by means of fixing brackets (9) on the cathode ray tube, and in that a variation in position of the brackets (9) on the cathode ray tube is compensated for by the elastic deformation of said softer material."

Claims 3 and 4 of the main request are directed to a cabinet for a television receiver having the features set forth in claims 1 and 2 respectively.

The claims of the first auxiliary request, claims 1 to 4, differ from those of the main request only in that claims 2 and 4 are additionally limited by fixing brackets on the cathode ray tube which are mounted on bosses on the window frames of the cabinet without separate dimensional compensating members being interposed. The claims of the second auxiliary request, claims 1 and 2, respectively correspond to claims 1 and 3 of the main request.

Reasons for the Decision

1. Late-filed document

1.1 Documents D4a, D4b and D5 were filed with the statement of grounds of appeal and thus well outside the nine-month period. In accordance with Article 114(2) EPC the Board may disregard facts or evidence which are not
submitted in due time by the parties concerned; however, the Board may in accordance with Article 114(1) EPC consider whether the documents are of such relevance as to justify their admission to the proceedings at a late stage.

1.2 D4a and D4b are intended to show that at the claimed priority date a television receiver had been sold which incorporated a cabinet with a surround for the tube having a portion of reduced thickness. The patentee argued that the documents should not be admitted since they showed the opposite of what was claimed, the claim requiring a gradual reduction in thickness whereas what was shown was a step reduction.

1.3 In the Board's view documents D4a and D4b do not go beyond the disclosure of D1 and indeed do not show a gradual reduction but a step reduction in the thickness of the cathode ray tube surround. The Board accordingly concludes that these documents are not so relevant as to justify their admission to the proceedings at a late stage.

1.4 D5 on the other hand appears to represent the common general knowledge in the plastics moulding art at the claimed priority date. The respondent, although denying that the document represented common general knowledge, accepted its disclosure was known and did not object to its introduction. D5 has accordingly been admitted to the proceedings.

2. Background to the invention

2.1 Cathode ray tubes are normally mounted in a cabinet by means of four flanges attached to respective corners of
the tube. A difficulty which can arise is that since the tube is made of glass there may be a dimensional variation between the actual position of the flanges and the front face of the tube, especially with larger sizes of tube. In consequence, the tube may not sit correctly against the front face of the cabinet.

2.2 The patent discloses at Figure 5 a prior art solution to this problem, comprising dimensional compensating members interposed between the tube brackets and respective cabinet mounting bosses, and a further dimensional compensating member at the cabinet edge which the tube abuts.

2.3 The patent proposes two solutions to the problem of compensating for dimensional variation, shown respectively in Figures 2 and 4. The Figure 2 solution involves mounting the tube without any dimensional compensation, but provides a flexible surround 10a, the edge 10b of which abuts the tube so that a variation in position of the brackets can be compensated. This flexible surround is an integral part of the cabinet and is gradually reduced in thickness from an end portion in communication with a wall of the cabinet towards the free end abutting the tube. In the alternative embodiment shown in Figure 4, instead of a gradual reduction in thickness of the surround an elastically deformable portion 13 is formed integrally with the cabinet at a position abutting the tube and serves to compensate for dimensional variations. The former embodiment is the subject of claims 1 and 3 of the main request and the latter the subject of claims 2 and 4.

3. Inventive step
3.1 Following the Board's decision not to admit the objection based on D4a and D4b, it was common ground at the oral proceedings that the single most relevant document was D1. D1 is concerned with the proper centering of a cathode ray tube in a cabinet, and in particular with the positioning and retaining of the tube by means of a moulded plastics face panel incorporating strengthening ribbing, 112 and 114 in Figure 2, and corner guides 28, 30, 32 and 34 which receive the tube corners and position the tube so that the tube fixing brackets 44 can be aligned with mounting holes 74. As can be seen from Figures 4, 4a and 4b, crushable ribs 50, 52 and 54 centre and retain the tube in the face panel within a range of transverse dimensional variation.

3.2 Turning now to claim 1 of all requests, D1 discloses, in the language of the claim, a television receiver including a cabinet 12 having a window 10 and "window frames" which surround said window; the Board understands the term "window frames" to refer to a face panel as disclosed in D1. The face panel of D1 is elastically deformable in two separate senses: firstly, the crushable ribs 50, 52 and 54 as discussed above and secondly the provision of a lip 86 abutting the tube, see Figure 5 and the text at column 4, lines 63 to 66. It was accepted by the respondent that the D1 arrangement could be understood as providing a portion of the front panel being formed to be elastically deformable outwardly due to contact between the cathode ray tube and the cabinet when assembling them, whereby a variation in a dimensional relationship between the cabinet and the cathode ray tube caused when positioning the cathode ray tube within the cabinet is compensated for by the elastic deformations of the face panel.
3.3 Turning now to the characterising portion of the claim, it can be seen that in D1 the "window frames" or face panel are an integral part of wall portions of the cabinet. Moreover, the cathode ray tube is assembled with the cabinet by means of the fixing brackets 44, see Figures 3 and 5 and the associated text at column 4 lines 59 to 63.
3.4 The primary matters under discussion in the oral proceedings were firstly whether the D1 arrangement disclosed a face panel in which a portion was gradually reduced in thickness from its proximal end portion in communication with a wall of the cabinet towards its free end, and whether a variation in position of the brackets on the cathode ray tube was compensated for by the elastic deformation of the face panel or "window frames". The respondent argued that a gradual reduction in thickness as shown in Figures 2 and 3 of the patent had considerable advantages; in an analogous manner to a fishing rod, such gradual reduction permitted the stress to be spread evenly whilst giving good flexibility and thus permitting a variation in position of the brackets to be compensated by elastic deformation. D1 was superficially similar but in fact was directed to a different object and obtained that object by different means. D1 was concerned with lateral tolerances, i.e. in the height and width of the tube and compensated these tolerances by means of the ribs 50, 52 and 54. The result was that the actual position of the tube varied in dependence on its height and breath. Admittedly the lip 86 was flexible, but most of the actual variation was compensated by providing comparatively thin and flexible mounting brackets 44 which, as could be seen from the description at column 4 lines 59 to 63, were flexible so as to compensate for dimensional variations and urge the tube into contact with the lip 86.

3.5 Although the Board accepts that in D1 there is provision for compensating dimensional variation by means of flexible brackets, it nevertheless remains the case that the lip 86 is stated column 4 lines 64 to 66 to be "flexible to accommodate the large variation in
diameter of cathode ray tube face panels". Although perhaps not primarily provided for that purpose it nevertheless follows that any variation in position of the brackets with respect to the front face of the tube will also be compensated for by elastic deformation of lip 86; even if most of the compensation is provided by flexion in the mounting brackets it is evident that compensation is also provided by the lip. Moreover, the Board takes the view that in a larger and heavier cathode ray tube it would be necessary to provide stronger and thus less flexible mounting brackets; in other words, if the skilled person were to scale up the D1 arrangement from a 19 inch tube as suggested at column 1 line 59 to a 45 inch tube as suggested in the patent at column 1 line 9, it is self evident that the mounting brackets would of necessity be less flexible and therefore any dimensional variation would have to be taken up by the lip 86. The Board accordingly considers that the skilled person, making use of the cabinet disclosed in D1 in connection with a larger cathode ray tube, would without the exercise of invention compensate for variation in the position of the brackets by elastic deformation of the lip 86.

3.6 The only remaining feature is the gradual reduction in thickness of the lip. Arguably D1 shows such a gradual reduction in Figure 5, but even if for the sake of argument it is considered not to be present, the Board takes the view that it is a self-evident measure in order to provide the necessary flexibility to compensate for dimensional variation and would adopted by the skilled person seeking to provide the necessary flexibility. The subject-matter of claim 1 of all the requests accordingly lacks an inventive step.
4. There being no allowable request, it follows that the patent must be revoked.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairman:

M. Kiehl P. K. J. van den Berg