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D E C I S I O N
of 29 October 2004

Case Number: T 0735/02 - 3.2.6

Application Number: 96309482.6

Publication Number: 0781882

IPC: D06F 37/22

Language of the proceedings: EN

Title of invention:
Drum appliances with balancing devices

Patentee:
Samsung Electronics Co., Ltd.

Opponents:
Aktiebolag Electrolux
Miele & Cie. KG

Headword:
-

Relevant legal provisions:
EPC Art. 123(2), 54, 56

Keyword:
"Request filed in oral proceedings - admitted"
"Amendments - Reformatio in peius - no"
"Novelty and inventive step - yes"

Decisions cited:
G 0001/99, T 1110/97, T 1067/97

Catchword:
-



Case Number: T 0735/02 - 3.2.6

D E C I S I O N
of the Technical Board of Appeal 3.2.6
of 29 October 2004

Appellant 01: Aktiebolag Electrolux
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Appellant 02: Miele & Cie. KG
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Representative: -

Respondent: Samsung Electronics Co. Ltd.
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
29 May 2002 concerning maintenance of European
patent No. 0781882 in amended form.

Composition of the Board:

Chairman: P. Alting van Geusau
Members: H. Meinders
R. T. Menapace

Summary of Facts and Submissions

I. By decision dated 29 May 2002 the Opposition Division maintained European Patent 0 781 882 in amended form.

The Opposition Division considered that the amendments to the patent as granted, carried out in the opposition proceedings, complied with Article 123(2) and (3) EPC and that the subject-matter of claim 1 as amended according to the main request was novel and inventive, in particular over the prior art disclosed in:

D1: US-A-2 984 094

and

D6: EP-A-0 607 678.

II. On 27 July 2002 Appellant 01 (Opponent 01) filed an appeal against this decision together with its statement of grounds and paid the appeal fee. Appellant 02 (Opponent 02) filed an appeal on 18 July 2002 and paid the appeal fee on that same date. Its statement of grounds of appeal was received on 23 September 2002.

III. The following documents, relied upon by the Opponents in opposition and appeal respectively, are relevant for the present decision:

D8: DE-U-1 912 481.

D9: Walter Kellenberger: "Elastisches Wuchten"; Springer Verlag 1987, page 403.

IV. Oral proceedings were held on 29 October 2003.

The Appellants requested setting aside of the decision under appeal and revocation of the patent. Appellant 01 considered that the final request filed by the Respondent in the oral proceedings before the Board was filed late and should therefore not be admitted.

The Respondent (Patentee) requested that the decision under appeal be set aside and that the patent be maintained on the basis of the following documents:

Claims 1-10 as filed at the oral proceedings,

Description:

amended page 3 as filed at the oral proceedings,
rest of the description as granted,

Drawings: as granted.

V. The wording of independent claim 1 forming the basis of the decision under appeal is as follows:

"An appliance having a rotatably mounted drum (30) for receiving a load of laundry, the drum (30) including counterbalance means (52a, 52b) arranged to move within a chamber (50) relative to the drum (30) and concentric therewith, during rotation of the drum (30), towards a counterbalancing position in response to an imbalance in a load therein,
characterised by a cover plate (32) on the drum (30), the drum (30) and the cover plate (32) each being bent to form corresponding grooves (32b, 53a) that are

aligned to form said chamber (50) when the cover plate (32) is fixed to the drum (30)."

The wording of independent claim 1 according to the Respondent's request is as follows:

"An appliance having an axially rotatably mounted drum (30) for receiving a load of laundry, the drum (30) including a side panel (32, 33), counterbalance balls (52a, 52b) arranged to move freely within a chamber (50) relative to the drum (30) and concentric therewith, during rotation of the drum (30), towards a counterbalancing position in response to an imbalance in a load therein, and a cover plate (53) on the side panel of the drum (30), characterised by first and second annular grooves (32b, 53a) that are aligned in the axial direction to form said chamber (50) when the cover plate (53) is fixed to the side panel of the drum (30), the first groove (32b) being formed on the side panel (32) inward of the drum and the second groove (53b) being formed on the cover plate (53) outward of the drum."

VI. The arguments of the Appellants can be summarised as follows:

The amendment of the feature "**being bent to form** corresponding grooves" to first and second annular grooves "**formed**" on the side panel and the cover plate respectively did not immediately overcome the objections made (clarity still remained an issue) and therefore could not be considered a reasonable attempt to overcome the objections raised by the Appellants as well as by the Board. As a consequence this request

should be dismissed as late filed and not clearly allowable.

In any case, this feature of the claim upheld by the Opposition Division was not disclosed in, nor implied by, the application as originally filed (Article 123(2) EPC). The amendment proposed by the new claim 1 resulted in an improvement of the proprietor's position, which meant a worse situation ("*reformatio in peius*") for the Appellants. If the principles of G 1/99 (OJ EPO 2001, 283) concerning the case where the proprietor is not the appealing party were to be applied, the first possibility of amendment mentioned in this decision had priority; using the second possibility as done by the Respondent was not allowable.

With respect to inventive step, Appellant 02 relied on D6 as closest prior art; the only difference could be seen in using counterbalance balls instead of or in combination with the liquid proposed by D6. Such balancing means, however, were well known, e.g. from D8 (page 5) or D9, and could easily be applied to the arrangement of D6. The baffles in the grooves of the drum of D6 did not create problems for such balls.

Appellant 01 considered the subject-matter of claim 1 obvious in the light of D1 as closest prior art. It required only minor design modifications to adapt the side plate of the drum and the cover plate disclosed in that document so as to form corresponding axially aligned grooves. Thus the problem of keeping the counterbalancing balls in place when mounting the cover plate on the drum and filling the channel with the

balancing liquid would be avoided. The bent rim of the side plate had in any case to be considered a groove, thus the drum side plate of D1 was already functionally the same as the drum side plate of the appliance of present claim 1.

VII. The Respondent argued as follows:

The modified set of claims addressed the issues raised in the oral proceedings before the Board, thus should be admitted.

The proposed amendment of the feature objected to under Article 123(2) EPC was the only reasonable way, short of the third possibility mentioned in G 1/99 (*supra*), of overcoming the objection against claim 1 as maintained by the Opposition Division. The first possibility provided by that decision was not a feasible option.

Inventive step of the subject-matter of present claim 1 had to be acknowledged, as none of the documents produced by the Appellants addressed the problem solved by the appliance of present claim 1, which is facilitating the assembly of the drum and its counterbalancing means. The solution proposed by the appliance of claim 1 avoided the difficulties ensuing from the balls not remaining in place when assembling the drum and its cover plates as proposed by D1.

The arrangement of D6, which did not mention the provision of balancing balls, did not allow for the incorporation of such balls, as the channels in the cover plate of the drum disclosed in D6 had

obstructions in the form of baffle plates, which would not allow free movement of the counterbalancing balls. In any case the arrangement of D6 had the channels formed on the side panel **outward** of the drum and **inward** of the cover plate, i.e. the exact opposite of the arrangement as in claim 1.

Reasons for the Decision

1. The appeals are admissible.
2. *Admissibility of the request of the Respondent filed in the oral proceedings*

Present claim 1 consists of claim 1 as upheld by the Opposition Division with further amendments carried out during the oral proceedings before the Board, in response to objections made in these oral proceedings by the Appellants as well as by the Board. The amendments in question concern the axial alignment of the annular grooves with the axis of the drum; the side panel of the drum and the cover plate on the side panel, and the first and second grooves being formed on the side panel and the cover plate, respectively.

Particularly the last amendment resulted from an extensive discussion in the oral proceedings of the allowability pursuant to Article 123(2) EPC of the feature "... the drum and the cover plate each being bent to form corresponding grooves...", figuring in the claim as maintained by the Opposition Division, and the consequences in respect of "*reformatio in peius*" if the Respondent were allowed to overcome the objection

raised by the Appellants under Article 123(2) EPC with respect to this feature. In such a case the Respondent should have the opportunity to react to the objections, by filing appropriate amendments, of course only within the limits of G 1/99 (*supra*). In the oral proceedings the Board gave the Appellants the opportunity to study these amendments. The Appellants declared they had had sufficient time to study and to react to this request.

The other amendments also take account of objections made by the Appellants during the oral proceedings, thus are to be considered a legitimate response as well.

There is therefore no valid reason to not admit this request into the proceedings.

3. *Formal allowability of the amendments (Articles 84, 123(2) and (3) EPC and the prohibition of "reformatio in peius")*

3.1 Claim 1 has been amended in respect of claim 1 as granted by the inclusion of (in brackets the basis for the disclosure in the original application documents):

- the drum including a side panel (page 7, second paragraph)
- the counterbalance means being balls moving freely (page 8, second paragraph)
- the cover plate being mounted on the side panel of the drum (page 10, third paragraph, claim 5)

- the first and second annular grooves being aligned axially, i.e. aligned in the direction of the axis of rotation of the drum (page 10, third paragraph: "corresponding grooves"; claim 5; figures 2A, 2B, 3-5)

- the first annular groove being formed on the side panel inward of the drum and the second annular groove being formed on the cover plate outward of the drum (claim 5, page 10, third paragraph).

These features result in a further limitation of the subject-matter of claim 1 as granted.

The dependent claims have been amended so as to be consistent with present claim 1. The description has been amended to include a reference to D1, necessary for the purposes of Rule 27(1)(b) EPC.

These amendments thus do not give rise to objections under Article 123(2) and (3) EPC.

3.2 Claim 1 as granted mentioned:

"... corresponding grooves (32b, 53a) provided in each of the drum (30) and the cover plate (32)."

Claim 1 as maintained by the Opposition Division reads: "... the drum (30) and the cover plate (32) each being **bent to form** corresponding grooves ...".

The application as filed (page 8, second paragraph; page 10, third and fourth paragraph; page 11, fifth paragraph) consistently refers to the grooves only as

formed in the side panel of the drum and the cover plate respectively (embodiments 1 to 3 and claim 5) or in two plate members respectively (claim 9), fixed to the "side panel" of the drum (embodiment 4).

Thus, the claim as allowed by the Opposition Division referring to the **drum** being bent to form the groove, instead of the **side panel**, amounts to an intermediate generalisation of features which have only been disclosed in a specific combination, contrary to Article 123(2) EPC (see also T 1110/97 and T 1067/97, not published in the OJ EPO).

With the wording as allowed by the Opposition Division it is now possible that the grooves are formed on the cylindrical wall of the drum and **not on its sides**. Such an arrangement has never originally been disclosed as a possible embodiment.

Thus the wording of claim 1 as upheld by the Opposition Division does not comply with the requirements of Article 123(2) EPC.

- 3.3 "Being bent" can have two meanings: either "of a non-straight shape" or "having been bent", i.e. the result of a bending operation. In relation to the grooves **neither** of these two possibilities has been disclosed in the application as originally filed. The grooves are consistently referred to in the description as "formed" in a certain part.

The only direct reference to "bent" relates to the "bent portions 32c and 53b", which, however, are the **chambers** to accommodate a packing seal, not the **grooves**.

The drawings show grooves with straight walls and **curved** corners, thus do not provide a basis for the interpretation as "grooves of non-straight shape".

The process of manufacture of the side panel and the cover plate is not discussed anywhere in the application as originally filed, thus it cannot be derived therefrom that these parts have been bent in a bending process to form the grooves. In any case, the material of the drum, its side panels or the cover plate is not mentioned in the application as originally filed, thus it cannot be assumed to relate to metal plate material only, for which a bending operation during manufacture might have been feasible.

Thus, whatever the interpretation of the feature "each being bent to form corresponding grooves", the amendment of the drum and the cover plate involving this feature amounts to an infringement of Article 123(2) EPC.

- 3.4 It therefore has to be examined whether replacing this phrase - allowed as amendment by the Opposition Division but not fulfilling the requirements of Article 123(2) EPC - by the following phrase:

"the first annular groove being formed on the side panel inward of the drum and the second annular groove being formed on the cover plate outward of the drum"

is allowable under the principles set out in G 1/99 (*supra*).

3.5 According to this decision the non-appealing proprietor can overcome an objection under Article 123(2) EPC against an amendment introduced in opposition proceedings by filing requests:

- in the first place, for an amendment introducing one or more originally disclosed features which limit the scope of the patent as maintained;
- if such an amendment is not possible, for an amendment introducing one or more originally disclosed features which extend the scope of the patent as maintained, but within the limits of Article 123(3) EPC;
- finally, if such amendments are not possible, for deletion of the inadmissible amendment, but within the limits of Article 123(3) EPC,

these possibilities having to be examined in the above order.

The Appellants argued that the first possibility should have been used, which had precedence over the second possibility as proposed by the Respondent. They, however, did not indicate which kind of amendment would fulfil the first condition. Their objection is therefore unsubstantiated.

Also the Board does not recognise a prima facie allowable amendment fulfilling the first condition.

Therefore it has to be examined whether the second possibility, as proposed by the Respondent, is feasible.

3.6 The Board notes that the subject-matter of present claim 1 has been amended by incorporating a number of further limiting features ("the first annular groove being formed on the side panel inward of the drum and the second annular groove being formed on the cover plate outward of the drum) **within the context of the feature** allowed by the Opposition Division ("the drum (30) and the cover plate (32) each being bent to form corresponding grooves"), thereby further limiting the subject-matter of claim 1 as maintained by the Opposition Division. Present claim 1 therefore does not give rise to objections based on G 1/99 (*supra*) in respect of the "*reformatio in peius*" prohibition.

3.7 It also complies with the requirements of Article 84 EPC, as it now clearly defines the location of the grooves in respect of the drum and their orientation with respect to each other.

4. *Novelty (Article 54 EPC)*

The novelty of the subject-matter of present claim 1 was not disputed by the Appellants. The Board has verified that none of the documents available in this file discloses all features of present claim 1.

5. *Inventive step (Article 56 EPC)*

5.1 The Board considers that the closest prior art for the discussion of inventive step of the subject-matter of present claim 1 is D1. This document relates to an appliance having a drum 4a for receiving a load of laundry, mounted axially rotatable, the drum including

a side panel (51), counterbalance balls (50) arranged to move freely within a chamber (22) relative to the drum and concentric therewith, during rotation of the drum, towards a counterbalancing position in response to an imbalance therein and a cover plate (52) on the side panel of the drum.

The rim (55) formed on the side panel (51) of the drum cannot be considered a first groove as claimed in claim 1, as it is not formed inward of the drum. The stepped rim (57) of the cover plate (52) cannot be considered a second **groove** as it is circumferentially open in the radially outward direction. Both cannot be considered as "axially aligned" with each other; if anything, they are aligned with an angle to the axis of the drum.

5.2 D6 as relied upon by the Appellant 02 is more remote, as this document does not relate to counterbalancing by counterbalance balls, but by liquid only. In fact, the provision of counterbalance balls in the concentric channels formed by the cover plate and the side panel of the drum disclosed in D6, as proposed by the Appellants, does not meet the requirements of balancing due to baffle walls (52e) being present in the channels as shown in Figure 9b and discussed in column 9, lines 12-16, which clearly would obstruct the free movement of the balls.

5.3 The balancing means of the appliance disclosed in D1 is difficult to assemble in that extra measures are necessary to keep the balls located in the runway of the side panel when lowering the cover plate into the rim of the side panel of the drum. They will not stay

in place but roll towards the lower centre of the side panel.

This problem is solved by providing the side panel of the drum with first grooves formed inward of the drum and the cover plate with second grooves formed outward of the drum, both grooves being aligned axially as claimed in the characterizing part of present claim 1.

- 5.4 D1, nor any other of the disclosures on file, provides the skilled person with an indication to modify its design. The arrangement shown in D6 does not apply to counterbalance balls but to liquid balancing means and technically does not allow the balls to freely move in its channels, due to the presence of baffle walls. Further, it provides the channels in an arrangement which is the reverse of the one claimed in present claim 1, the channels in the side plate being oriented outward of the drum and the channels in the cover plate being oriented inward of the drum.

Hence, the Board comes to the conclusion that the subject-matter of claim 1 cannot be derived in an obvious manner from the prior art and accordingly involves an inventive step (Article 56 EPC).

The subject-matter of claims 2-10 relate to preferred embodiments of the appliance of claim 1, thus their subject-matter also is novel and involves an inventive step.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the first instance with the order to maintain the patent on the basis of the following documents:

Claims 1-10 and amended page 3 of the description, both filed during the oral proceedings,

rest of the description and drawings as granted,

The Registrar:

The Chairman:

M. Patin

P. Alting van Geusau