Datasheet for the decision of 5 July 2012

Case Number: T 0229/10 - 3.2.06
Application Number: 00126198.1
Publication Number: 1110521
IPC: A61F13/15
Language of the proceedings: EN

Title of invention:
Method for manufacturing particle deposited body

Patentee:
KAO CORPORATION

Opponent:
The Procter & Gamble Company

Headword:

Relevant legal provisions:
EPC Art. 123(2)
RPBA Art. 13(1) (3)

Keyword:
Amendments - allowable (no)
Admissibility of requests (no)
Case Number: T 0229/10 - 3.2.06

DECISION
of the Technical Board of Appeal 3.2.06
of 5 July 2012

Appellant I:
(Patent Proprietor)
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Decision under appeal:
Interlocutory decision of the Opposition
Division of the European Patent Office posted 27
November 2009 concerning maintenance of the
European Patent No. 1110521 in amended form.

Composition of the Board:
Chairman:
M. Harrison
Members:
G. de Crignis
K. Garnett
Summary of Facts and Submissions

I. By way of its interlocutory decision posted on 27 November 2009, the opposition division found that European Patent No. 1 110 521 in an amended form met the requirements of the European Patent Convention (EPC).

II. The opposition division held that the main request did not meet the requirement of Article 123(2) EPC. The first auxiliary request was considered to meet the requirements of Article 83 EPC and to be novel over D1 and D2 (Article 54 EPC) as well as to involve an inventive step with regard to these documents.

III. The appellant (patent proprietor) filed an appeal against this decision and with its grounds of appeal filed a main request and six auxiliary requests.

IV. The appellant (opponent) filed an appeal against this decision and in its statement setting out the grounds of appeal requested that the decision be set aside and the patent be revoked.

V. In a communication annexed to the summons to oral proceedings, the Board indicated inter alia that with regard to the main request the requirement of Article 123(2) EPC appeared not to be met.

VI. In its submission of 5 June 2012, the appellant/proprietor filed an amended main request, amended auxiliary requests 1 to 6 and new auxiliary requests 7 to 17.

VII. Oral proceedings were held before the Board on 5 July 2012. The appellant/proprietor requested that the
decision under appeal be set aside and that the patent be maintained on the basis of the main request filed with its letter dated 5 June 2012, alternatively on the basis of the first auxiliary request filed during the oral proceedings alternatively on the basis of the second, third or fourth auxiliary requests filed during the oral proceedings.

The appellant/opponent requested that the decision under appeal be set aside and that the patent be revoked.

VIII. Claim 1 of the main request reads:
"A method for manufacturing particle deposited bodies comprising supplying, under sucking condition, particles (21) entrained by air on a continuous carrier sheet (41) having an air-permeability of 4.0 seconds/(300 ml·32 pcs.) or less which is running at a prescribed direction to deposit said particles (21) on said carrier sheet, characterized in that
- multiple air-permeable sucking portions are provided at predetermined intervals and adapted to suck particle entraining air for depositing said particles on said carrier sheet,
- wherein said sucking portions may take any desired configuration such that said particles are deposited in a desired pattern corresponding to the configuration of said sucking portions, and
- providing a retaining sheet (51) which is supplied onto said carrier before the particles are deposited thereon, thereby obtaining a particle deposited body in which the particles are retained in said retaining sheet."

IX. Claim 1 of the first auxiliary request reads:
"A method for manufacturing particle deposited bodies comprising supplying, under sucking condition, particles (21) entrained by air on a continuous carrier sheet (41) having an air-permeability of 4.0 seconds/ (300 ml·32 pcs.) or less which is running at a prescribed direction to deposit said particles (21) on said carrier sheet, the carrier sheet being a sheet of paper or a nonwoven fabric, characterized in that
- multiple air-permeable sucking portions are provided underneath the carrier sheet (41) and at predetermined intervals on an outer peripheral surface of a rotary drum (11) in its circumferential direction and adapted to suck particle entraining air for depositing said particles on said carrier sheet being supplied around the outer peripheral surface of said rotary drum (11), the rotary drum (11) having four chambers (a, b, c, d) defined therein, said chambers being adapted to exert different suction forces to said particle suction portions, and said rotary drum (11) having a center chamber (e) defined therein, wherein two neighboring chambers (b, c) underneath the carrier sheet (41) are maintained to negative pressure,
- wherein said sucking portions may take any desired configuration such that said particles are deposited such that a contour of a deposited portion of the particles has a generally same configuration as said sucking portions,
- providing a retaining sheet (51) which is supplied onto said carrier before the particles are deposited thereon, thereby obtaining a particle deposited body in which the particles are retained in said retaining sheet dispersed in its thickness direction."

Claim 1 of the second auxiliary request reads as follows:
"A method for manufacturing particle deposited bodies comprising supplying, under sucking condition, particles (21) entrained by air on a continuous carrier sheet (41) having an air-permeability of 4.0 seconds/ (300 ml·32 pcs.) or less which is running at a prescribed direction to deposit said particles (21) on said carrier sheet, the carrier sheet being a sheet of paper or a nonwoven fabric, characterized in that multiple air-permeable sucking portions are provided underneath the carrier sheet (41) and at predetermined intervals on an outer peripheral surface of a rotary drum (11) in its circumferential direction and adapted to suck particle entraining air for depositing said particles on said carrier sheet being supplied around the outer peripheral surface of said rotary drum (11), the rotary drum (11) having four chambers (a, b, c, d) defined therein, said four chambers being a first (a), a second (b), a third (c) and a fourth (d) chamber, said chambers being adapted to exert different suction forces to said particle suction portions, and said rotary drum (11) having a center chamber (e) defined therein, wherein the second (b) and third (c) chambers are neighboring chambers located underneath the carrier sheet (41) and maintained to negative pressure, wherein said sucking portions may take any desired configuration such that said particles are deposited such that a contour of a deposited portion of the particles has a generally same configuration as said sucking portions, wherein each sucking portion is formed with a number of pores over an entire surface thereof, providing a retaining sheet (51) which is supplied onto said carrier before the particles are deposited thereon, thereby obtaining a particle deposited body in
which the particles are retained in said retaining sheet dispersed in its thickness direction.
- wherein the four chambers are arranged radially around the central chamber;
- wherein the first chamber (a) is neighboring the fourth chamber (d) in the rotation direction (A) of the drum, wherein the third chamber (c) is neighboring the second chamber (b) in the rotation direction of the drum, wherein the sucking air amount/static pressure is set largest in the chamber (b), wherein the inside of the fourth chamber (d) is maintained to positive pressure, and wherein the fourth chamber (d) is neighboring the third chamber (c) in the rotation direction (A) of the drum."

Claim 1 of the third auxiliary request differs from claim 1 of the second auxiliary request in that the feature concerning the configuration of the sucking portions reads as follows:
"- wherein said sucking portions may take any desired configuration such that said particles are deposited such that the contour of the deposited portion of particles is made in a desired pattern with said contour corresponding to the configuration of said sucking portions;"

Claim 1 of the fourth auxiliary request differs from claim 1 of the third auxiliary request in that the following feature is added at the end of the claim:
"- wherein when the retaining sheet (51) is supplied onto the carrier sheet (41), the carrier sheet (41) and the retaining sheet (51) are adhered together by an adhesive agent so that the sheets (41, 51) are integrated."
X. The appellant (proprietor) argued essentially:

Claim 1 of the main request referred to a method. This method could be applied independently of whether a mesh conveyor or a rotary drum was used for carrying the carrier sheet and the retaining sheet. The use of a rotary drum was not essential as long as multiple air-permeable sucking portions were provided. In the embodiment described on page 14 of the application as filed, such particle sucking portions were formed in the mesh conveyor. Thus, the feature concerning the "multiple air-permeable sucking portions" was neither structurally nor functionally related to a rotary drum apparatus or a mesh conveyor apparatus nor to the other structural features of the apparatus shown in Figure 1.

The terms "desired configuration" and "predetermined configuration" were consistently and interchangeably used throughout the application as originally filed. Although in originally filed claim 3 the term "contour" was used, the term "desired pattern" used in claim 1 made clear that the deposited portions of the particles mirrored the configuration of the multiple sucking portions.

Claim 1 of auxiliary request 1 was limited to the embodiment having a rotary drum having four chambers (a) to (d) such as disclosed in page 4, lines 11 to 18 of the application as filed. Figure 1 represented a simplified sketch and there was no necessity to add further details with regard to the features disclosed in page 4, lines 11 to 18 or in Figure 1. The term "desired pattern" was replaced by the "contour of a deposited portion of the particles" and accordingly, only a two-dimensional pattern was claimed.
Independently of whether a "desired pattern" or a "contour" was claimed, only two-dimensional outlines were to be understood as being claimed.

Claim 1 of each of auxiliary requests 2 to 4 was further limited. It included further features from page 4, lines 11 to page 5, line 2 with respect to the chambers of the rotary drum and the term "desired pattern" was defined more precisely such that only a two-dimensional pattern was claimed. It was only during the oral proceedings that the above issues were addressed as being significant. Nevertheless, the amendments made could have been expected, since in the written part of the procedure there had already been objections made concerning the structure of the chambers and the nature of the particle sucking portions. No different invention was claimed and hence, no fresh case had to be considered. Concerning the suction pressure in the different chambers, the features were based upon the literal wording in the application as filed, so the requirement of Article 123(2) EPC was met; moreover, chamber (a) represented the least important chamber and was irrelevant for the deposition process. The main argument on inventive step concerned the retaining sheet, so that inventive step considerations would not be changed by the amended claim and the framework of the appeal would thus not be altered.

XI. The appellant/opponent argued essentially:

Claim 1 of the main request did not specify that the multiple air-permeable sucking portions at predetermined intervals were provided on the peripheral surface of a rotary drum, such as originally disclosed. Additionally, there was no disclosure for particles
being deposited in any desired pattern. Such pattern included three-dimensional shapes and hence involved subject-matter extending beyond the disclosure as originally filed since according to page 1, line 20 of the originally filed application via the disclosure of "making the contour of the deposited portions of the particles in a desired pattern", only a two-dimensional layout was to be considered. Therefore, the requirement of Article 123(2) EPC was not met.

Concerning the first auxiliary request, all objections had already been set out in the grounds of appeal. Therefore, such a request could and should have been filed earlier. Moreover, claim 1 did not include all features which were inextricably linked to the embodiment having the rotary drum. There was no basis in the filed application for the more general definition used in the claim. The first auxiliary request should thus not be admitted into the proceedings.

Concerning the second to fourth auxiliary requests, they should also not be admitted into the proceedings. Claim 1 of these requests resulted in at least clarity and internal consistency problems with regard to the suction forces in the different chambers and also with regard to a contravention of Article 123(2) EPC in view of the embodiment shown in Figure 1 and disclosed in paragraphs [0012] and [0013], which disclosed a very specific structural and functional relationship of the various chambers of the drum, such as for example chamber (d) being located at the lower part of the drum and performing a peel-off function or chamber (a) being cut-off from pressure. Many more features of the embodiment were also lacking.
Reasons for the Decision

1. Requests

All the requests maintained by the appellant/proprietor were filed after receipt of the Board's communication annexed to the summons to oral proceedings. According to Article 13(1) of the Rules of Procedure of the Boards of Appeal (RPBA), it lies within the discretion of the Board to admit any amendment to a party's case after it has filed its grounds of appeal or reply and states that "the discretion shall be exercised in view of inter alia the complexity of the new subject-matter submitted, the current state of the proceedings and the need for procedural economy." According to Article 13(3) RPBA, "amendments sought to be made after oral proceedings have been arranged shall not be admitted if they raise issues which the Board or the other party or parties cannot reasonably be expected to deal with without adjournment of the oral proceedings".

For the reasons explained infra, none of the requests was admitted into the proceedings.

2. Main Request

2.1 The claims of the main request differ from the claims as granted only by way of amendments and deletions of features in claims 2 and 3. Hence, it is clear that the objections concerning claim 1 found to prejudice maintenance of the patent by the opposition division in the decision under appeal and also addressed in the Board's communication annexed to the summons (see item 2.3 therein) have not been overcome. In order to be admitted, any late-filed request should, for procedural
economy reasons at least, be prima facie allowable, which is not the case here.

2.2 Claim 1 includes the following features in addition to claims 1 and 2 as originally filed:

(i) "- multiple air-permeable sucking portions are provided at predetermined intervals and adapted to suck particle entraining air for depositing said particles on said carrier sheet,"; and

(ii) "- wherein said sucking portions may take any desired configuration such that said particles are deposited in a desired pattern corresponding to the configuration of said sucking portions."

2.3 Feature (i) is disclosed in the originally filed application having regard to page 2, lines 22 - 25, page 3, lines 12 - 25 and page 13, lines 6 - 11, which passages all refer to the deposition of the particles in the context of an apparatus including a rotary drum and hence which relate to the embodiment illustrated in Figure 1, to which Figure a reference is included in the first passage.

2.4 The appellant/proprietor argued that claim 1 related to a method and the use of a rotary drum was not essential for the method as long as multiple air-permeable sucking portions were provided. Therefore also the embodiment described on page 14 of the application as filed, which referred to particle sucking portions being formed in a mesh conveyor so as to be deposited on the carrier sheet, would be consistent with the claimed wording, such that a skilled person would unambiguously derive that the method did not require a rotary drum.
2.5 However, the mesh conveyor described on page 14 is referred to as "another embodiment of the invention". It concerns a specific belt-like carrier sheet having higher air-permeability and supply of the particles onto the carrier sheet whereas the first embodiment disclosed in the previous paragraphs and claimed in claim 1 concerns the use of a rotary drum in the depositing step and includes the deposition of the particles onto a retaining sheet. The embodiment described on page 14 makes no mention of a retaining sheet; nor is the presence of any retaining sheet implicit.

2.6 Claim 1 does not specify the feature of a rotary drum, which is however inextricably linked to the features of the embodiment from which the wording in item 2.2(i) above is derived. Hence, in view of the lack of a "rotary drum" in claim 1, the claimed subject-matter extends beyond the content of the application as filed and the requirement of Article 123(2) EPC is not met. Since the main request was prima facie not allowable at least for this reason, the Board exercised its discretion not to admit it into the proceedings (Article 13(1) RPBA). It is therefore not necessary to address the further objections made against claim 1 of the main request.

3. First auxiliary request

3.1 Claim 1 includes inter alia the feature that the rotary drum has four chambers (a, b, c, d) and that these chambers are "adapted to exert different suction forces to said particle suction portions". Additionally it is defined in claim 1 that the rotary drum has a centre chamber (e) and that two neighbouring chambers (b, c)
underneath the carrier sheet (41) are maintained to negative pressure.

3.2 These features are originally disclosed on page 4, lines 11 to 18, which is followed by the passage on page 4, lines 19 to page 5, line 2, which additionally discloses that "the sucking air amount/static pressure is set largest in the chamber (b)", that "the chambers (a) and (d) are cut off the connection with the suction fan", and that "the chamber (d) is connected with an air blower and its inside is maintained to positive pressure, thereby enabling the easy peel-off of the web from the drum".

3.3 Accordingly, the chambers described in the originally filed application are disclosed in a more limited manner with regard to the pressure to be applied and with regard to the sequence of pressure. Moreover, chamber (d) is structurally and functionally disclosed as having a positive pressure. Therefore, the presence of a positive pressure in chamber (d) is a feature which is inextricably linked to the claim. Since it is not defined in claim 1, the subject-matter of claim 1 therefore does not fulfil the requirement of Article 123(2) EPC. Since the claimed subject-matter is not prima facie allowable, the Board exercised its discretion not to admit the first auxiliary request into the proceedings having regard to Article 13(1) RPBA.

4. Non-admittance of auxiliary requests 2 to 4

4.1 These requests were all filed during the oral proceedings, hence at the last possible stage in the proceedings. Claim 1 of these requests has been amended
compared to claim 1 of the previous requests by adding further features.

4.2 With regard to the rotary drum, the following features are defined in claim 1 of each request:
- the rotary drum having four chambers (a, b, c, d);
- said chambers being adapted to exert different suction forces to said particle suction portions;
- the four chambers being a first (a), a second (b), a third (c) and a fourth (d) chamber;
- said rotary drum having a center chamber (e);
- the four chambers are arranged radially around the central chamber;
- the first chamber (a) is neighboring the fourth chamber (d) in the rotation direction (A) the drum;
- the third chamber (c) is neighboring the second chamber (b) in the rotation direction of the drum;
- the fourth chamber (d) is neighboring the third chamber (c) in the rotation direction (A) of the drum;
- the second (b) and third (c) chambers are neighbouring chambers located underneath the carrier sheet (41) and maintained to negative pressure;
- the sucking air amount/static pressure is set largest in the chamber (b);
- the inside of the fourth chamber (d) is maintained to positive pressure.

4.3 These amendments are based on the passages of the originally filed description on page 4, lines 11 to page 5, line 2, identified above. The first paragraph within this section includes a reference to the apparatus shown in Figure 1.

4.4 Claim 1 does not define the location of chamber (d) nor its purpose in the method of manufacture, although page 4, lines 27 to 30 states that chamber (d) is
maintained at positive pressure thereby enabling peel-off of the web from the drum. Having regard to Figure 1 (to which this section of the description also relates) and to this portion of the description describing the peel-off function, it is also evident that chamber (d) is located at the lower part of the drum and next to the removal location of the webs. No other possible location or purpose of chamber (d) is disclosed, nor is any implicit to a skilled person from the disclosure available. Since these particular features of chamber (d) are not defined in claim 1, the subject-matter of claim 1 defines subject-matter which is not derivable directly and unambiguously in such a general form from the content of the application as originally filed. Article 123(2) EPC is thus contravened.

4.5 Similarly, chamber (a) is described as being cut-off from connection with the suction fan, whereas claim 1 only defines that the four chambers are subject to different suction forces. No direct and unambiguous disclosure can be found that chamber (a) need not be cut-off from suction pressure and indeed, considering the function and location of chamber (a) in Figure 1, it is evident that it is cut-off. Consequently the requirement of Article 123(2) EPC is not met.

4.6 Although the appellant argued that the first mention of the exertion of suction forces in the claim referred simply to a more general disclosure and the later mention of a positive pressure in chamber (d) to a more specific disclosure, the Board finds this argument unconvincing since the features in question do not relate to a general and a specific disclosure but rather to direct opposites.
4.7 Therefore, a clear and unambiguous disclosure (Article 123(2) EPC) for the now claimed features cannot be derived, such that the subject-matter claimed is at least *prima facie* not allowable for this reason.

4.8 Although the requests were not *prima facie* allowable at least for the reasons given above, it may additionally be mentioned that if the requests were to have been admitted, the Board as well as the opponent would have been faced for the first time with new issues as to e.g. why this claimed subject-matter would be inventive, noting that the introduced features of the chambers related to the disclosure in the description and Figure 1.

4.8.1 The appeal case had not been based upon a method which included specific aspects of the various chambers of a drum and the pressures applied to those chambers for various purposes. Accordingly, the addition of these features would have had the effect of changing the appellant's case markedly from that set out in the grounds of appeal. Such amendments raised issues which neither the Board nor the other party could be expected to deal with at such a late stage of proceedings, without adjournment of the proceedings. In such a case (ie amendments sought to be made after oral proceedings have been arranged) Article 13(3) RPBA stipulates that they shall not be admitted.

4.8.2 The appellant/proprietor argued that only during oral proceedings had the relevance of such issue become apparent and that therefore, the submission of requests taking into account such objections was justified. Moreover, no fresh case would arise from the amendments, since chamber (a) was irrelevant for the deposition process and accordingly the least important
chamber, and the main argument with regard to the presence of an inventive step would not change as this concerned the deposition of the particles in the retaining sheet. In contrast thereto, the Board considers at least the positive pressure applied to chamber (d) as being relevant for peel-off while chamber (a) must also be cut-off from the suction fan in the forming process and thus at least these aspects concern aspects relevant to the deposition method. The claimed combination of chambers is therefore a matter which cannot simply be ignored when considering inventive step and which thus alters the case significantly.

4.8.3 Moreover, the appellant/opponent had already put forward with its grounds of appeal (see points 3.3 to 3.8) the argument that features (i) and (ii) of claim 1 (identified under point 2.2 above) are inextricably linked in the description as filed with other features of the specific embodiment. Under point 3.6 of the grounds of appeal the appellant/opponent had specifically addressed the issue that the interior of the drum was divided into five chambers maintained at different relative levels of vacuum. Also the communication annexed to the summons by the Board (see point 2.3) included the statement that such embodiment included further features. Accordingly, also the argument that the relevance of these features arose only during oral proceedings is not supported by the written submissions on file.

4.9 At the very latest, as a response to the Board's communication, the appellant/proprietor could have submitted a corresponding set of claims to deal with this matter. However, the appellant/proprietor chose instead to file requests having a claim 1 which did not
include the further features of the embodiment while at the same time arguing that the embodiment disclosed starting on page 4, line 11 of the application as filed concerned only one preferred way of performing the claimed method, but that such method was not linked mandatorily to the apparatus shown in Figure 1.

However, as set out above for all previous requests, the embodiment including features (i) and (ii) identified under point 2.2 above is indeed inextricably linked to the apparatus shown in Figure 1.

4.10 In order to be admitted, any request submitted after the time period given in Article 12(1)(b) RPBA should, at least for reasons of procedural economy, be prima facie allowable, which is not the case here. Accordingly, the Board exercised its discretion under Articles 13(1) and (3) RPBA and did not admit auxiliary requests 2 to 4 into the proceedings.

4.11 As also explained to the appellant/proprietor during oral proceedings, since none of the appellant/proprietor's requests were admitted into the proceedings, there was no request in the proceedings on the basis of which the Board could order the maintenance of the patent, with the result 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.

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The Registrar: M. Patin

The Chairman: M. Harrison

Decision electronically authenticated