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**Datasheet for the decision
of 3 June 2019**

Case Number: T 0971/15 - 3.2.07

Application Number: 03006542.9

Publication Number: 1348652

IPC: B65G53/66

Language of the proceedings: EN

Title of invention:

Powdery particle conveying system and roots blower operating method

Patent Proprietor:

Nisshin Seifun Group Inc.

Opponent:

Coperion GmbH

Headword:

Relevant legal provisions:

EPC Art. 100(c)

RPBA Art. 15(3)

Keyword:

Right to be heard - decision in written proceedings after
declaration of intention not to attend the oral proceedings
Amendments - added subject-matter (yes)

Decisions cited:

Catchword:



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Case Number: T 0971/15 - 3.2.07

D E C I S I O N
of Technical Board of Appeal 3.2.07
of 3 June 2019

Appellant: Nisshin Seifun Group Inc.
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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 3 March 2015
revoking European patent No. 1348652 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chairman I. Beckedorf
Members: V. Bevilacqua
A. Pieracci

Summary of Facts and Submissions

- I. The patent proprietor (appellant) lodged within the prescribed period and in the prescribed form an appeal against the decision of the opposition division revoking European patent No. 1 348 652.
- II. An opposition had been filed against the patent as a whole, based i.a. on the ground for opposition pursuant to Article 100(c) EPC in respect of the independent apparatus claim 1 and the independent method claim 4 (see point IV. of the notice of opposition).
- III. The appellant requested
- that the decision under appeal be set aside and that the patent be maintained in amended form on the basis of claims 1 to 4 of the main request submitted together with the statement setting out the grounds of appeal, which correspond to claims 4 to 7 of the patent as granted.
- The respondent (opponent) requested:
- that the appeal be dismissed.
- IV. The parties were summoned to oral proceedings to be held on 26 August 2019 in accordance with Rule 115 EPC. In view of both parties' announcements not to participate in the oral proceedings (see the appellant's letter dated 1 February 2019 and the respondent's letter dated 4 January 2019), the Board cancelled the oral proceedings and issued the present decision in written proceedings.

V. **Independent method claim 1 of the main request** reads as follows:

"A method of transporting powdery particles from a storage facility (12) to a selected one of a plurality of tanks (30) located at varying distances from the storage facility (12), the method comprising:

- o operatively coupling a motor driven roots blower (2) to the storage facility (12) and the tanks (30) so that the powdery particles can be transported from the storage facility (12) to the tanks (30);
- o selecting one of the tanks (30) to which the powdery substance is to be transported;
- o activating the roots blower (2) to initiate a flow of powdery particles to the selected tank (30);
- o determining a discharge pressure for the powdery particles to the selected tank (30) below which there is a danger that powdery particles will cause the conveying pipe to be closed by the powdery particles and obstruct the flow; and setting the substantially lowest electric power input to the motor (4) of the roots blower (2) which will cause the roots blower (2) to maintain a sufficient discharge pressure to the selected tank (30) to prevent powdery particles from closing the conveying pipe."

VI. The patent in suit was revoked because granted claim 1 was found to contain such unallowable amendments. However, granted claim 4, corresponding to claim 1 of the present main request, was held not to contain added subject-matter.

VII. The appellant's written submissions in respect of the ground for opposition under Article 100(c) EPC can be

summarised as follows and are discussed in more detail in the Reasons for the Decision:

The ground for revoking the patent as granted for lack of support of the subject-matter of the granted apparatus claim in the application as filed did not apply to the main request because of the deletion of all apparatus claims from the present set of claims.

The basis for the method according to claim 1 of the main request was to be found in the description of the application as filed in the context of the embodiment depicted in figures 2 and 3, and in particular in the passages starting on page 6, line 18, to page 7, line 24, and starting on page 8, line 14, to page 9, line 23 as well as on page 10, line 21 to 23. There a method was disclosed according to which, after the start of the conveyance, the speed of the motor was reduced by the controller in order to save energy, and in the meantime, the discharge pressure was measured inside the conveying pipe, and a judging device judged the conveying state of the powdery particles based on the output of the pressure gauge. This was done to prevent that the discharge pressure fell under a minimum value which was necessary for preventing the conveying pipe from being clogged by the powdery particles and therefore for reliably feeding the powdery particles to a selected tank.

VIII. The respondent's written submissions in respect of the ground for opposition under Article 100(c) EPC can be summarised as follows and are discussed in more detail in the Reasons for the Decision:

Claim 1 represented an unallowable intermediate generalisation, extending beyond the contents of the originally filed documents.

The claimed subject-matter was based neither on claim 6, nor on claim 13, which were the only originally filed independent method claims. The features of method claim 1 were also not originally disclosed in combination in the context of the embodiment depicted in figures 2 and 3, but were extracted from different, unconnected, parts of the original disclosure.

Reasons for the Decision

1. Right to be heard

The present decision is taken without holding oral proceedings. The principle of the right to be heard pursuant to Article 113(1) EPC is however observed since that provision only affords the opportunity to be heard. By explicitly declaring their respective intention not to attend the oral proceedings, to which both parties were duly summoned, both parties gave up that opportunity (see Case Law of the Boards of Appeal, 8th edition 2016, sections III.B.2.7.3 and IV.E.4.2.6.d), e)).

In view of said declarations, the Board informed the parties of its intention to cancel the oral proceedings and to issue the decision in written proceedings instead. Since none of the parties either commented on this or objected to this, the Board cancelled the oral

proceedings and took the decision in written proceedings on the basis of both parties' written submissions (Article 15(3) EPC).

2. Claim 1 - Added subject-matter

The ground of opposition according to Article 100(c) EPC holds against the main request, as the subject-matter of claim 1 extends beyond the content of the application as filed for the following reasons.

2.1 No basis in the originally filed claims

2.1.1 The Board concurs with the respondent when they argue that the subject-matter of claim 1 is neither based on claims 6 to 8, nor on claims 13 to 16, which were the only originally filed method claims.

This is because a step of "determining a discharge pressure" (see the last step of claim 1) is not present in any of the above mentioned claims.

2.1.2 The only originally filed claim mentioning that a discharge pressure is measured is apparatus claim 10, which has no claims dependent thereon.

Claim 1 has however also no basis in originally filed claim 10.

A skilled person is aware that there are many possible stable conveying states (dilute phase or "Flugförderung", medium phase with dune formation ("Strähnenförderung"), dense phase, plug conveying ("Propfchenförderung", see D2 (Siegel, Wolfgang, Pneumatische Förderung: Grundlagen,

Auslegung, Anlagenbau, Betrieb", Würzburg, Vogel-Verlag, 1991, from page 28 to page 33).

Claim 1 (see the last step thereof) requires setting the substantially lowest electric power input to the motor of the roots blower which will cause the roots blower to maintain a sufficient discharge pressure to the selected tank to prevent powdery particles from closing the conveying pipe.

Claim 1 therefore also extends to embodiments in which, for example, an initial dilute phase conveying state is turned, by reducing power input into a dense conveying state or even a plug conveying state (see D2, from page 28 to page 33).

Looking now at originally filed claim 10, a method can be derived, comprising a step of measuring a discharge pressure and judging the conveying state of the powdery particles on the basis of this measurement, and reducing the speed of the motor to a lowest speed at which a **predetermined conveying state** can be maintained.

As the expression "conveying state" has a very specific meaning in this technical field, a skilled reader would not find in original claim 10 any basis for those embodiments of claim 1 in which the reduction of power input causes a **change of conveying state**.

2.2 No basis in the disclosure of the embodiment of figures 2 and 3

As noted by the appellant, the step of determining a discharge pressure was originally disclosed in the passage at page 7, lines 11 to 12, which relates to the

embodiment depicted in figures 2 and 3 that comprises a pressure gauge (3, see figure 2) inside the conveying pipe.

Claim 1 of the main request, however, foresees that the particular value of discharge pressure is determined, below which the conveying pipe is obstructed, and that the roots blower is not operated below this value, to maintain a sufficient discharge pressure to prevent powdery particles from closing the conveying pipe.

By doing that, claim 1 of the main request also extends to methods in which the blower is operated with a **constant discharge pressure from the beginning**, which has to be sufficient to achieve and maintain conveyance.

Such a method was clearly not originally disclosed in the context of the embodiment of figures 2 and 3, because, as noted by the appellant itself, when it refers to page 10, lines 18 to 23, the conveyance is started by rotating the blower at a high speed, and said speed of the blower is **gradually reduced**, thereby reducing discharge pressure, and in the meantime the discharge pressure decay is monitored.

When the **ratio** between the reduction of discharge pressure and the reduction of speed becomes smaller than a predetermined value (page 11, lines 1 and 2), speed is increased again to avoid clogging of the pipes.

As consequence of that, there is no disclosure, in the context of this embodiment, of a step of setting a **constant** electric power input to the motor of the roots blower, which will cause the roots blower to have and

maintain a sufficient discharge pressure to the selected tank, to start conveyance and to prevent powdery particles from closing the conveying pipe.

2.3 No basis in the disclosure of the embodiment of figures figures 4 and 5

There is also no basis for the method of claim 1 in the description of the embodiments of figures 4 and 5, where methods in which the blower is operated from the beginning with a **constant speed** (see from page 15, line 6, to page 16, line 11), sufficient to achieve and maintain a stable conveying state, are disclosed.

This is because according to this embodiment the conveying system does not even comprise a pressure sensor 3 (see page 14, lines 14 to 15), but has a memory device 9 in which an output value (for example the frequency of the electrical power input, corresponding to a particular speed of the motor) of the roots blower is stored for each reservoir tank to be filled.

When conveying is started and a particular tank is selected a controller reads from the memory device the frequency to be applied to the blower to reliably fill the selected tank.

The above method clearly does not encompass a step of determining a discharge pressure, as claimed in claim 1.

3. Conclusion

For the aforementioned reasons, claim 1 of the main requests is not allowable. Since the appellant did not

file any other request, the appeal as such is unfounded.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



G. Nachtigall

I. Beckedorf

Decision electronically authenticated