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**Datasheet for the decision
of 24 January 2008**

Case Number: T 0895/05 - 3.2.02

Application Number: 01925572.8

Publication Number: 1276911

IPC: C21B 7/22

Language of the proceedings: EN

Title of invention:

A device for discharging dust from a dry dust collector or a blast furnace

Applicant:

PAUL WURTH S.A.

Opponent:

-

Headword:

-

Relevant legal provisions:

EPC Art. 123

Relevant legal provisions (EPC 1973):

EPC Art. 54, 82, 84

EPC R. 29(2)c)

Keyword:

"Novelty (yes) after amendment"

Decisions cited:

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Catchword:

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Case Number: T 0895/05 - 3.2.02

D E C I S I O N
of the Technical Board of Appeal 3.2.02
of 24 January 2008

Appellant: PAUL WURTH S.A.
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 7 February 2005
refusing European application No. 01925572.8
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: T. Kriner
Members: R. Ries
A. Pignatelli

Summary of Facts and Submissions

- I. This appeal is against the decision of the examining division dated 7 February 2005 to refuse European patent application No. 01925572.8.
- II. The application was refused on the grounds that the application did not meet the novelty requirement of Article 54 EPC (1973), having particular regard to the document

D1: EP-A-0 656 516

- III. On 11 March 2005 the appellant (applicant) lodged an appeal against the decision and paid the prescribed fee on the same day. A statement of grounds of appeal was filed on 17 June 2005.
- IV. Oral proceedings were held on 24 January 2008. The applicant requested that the decision under appeal be set aside and that a patent be granted on the basis of claims 1 to 14 filed with letter of 24 December 2007.

Independent claims 1 and 2 read as follows:

"1. A device for discharging dust from a dry dust collector of a blast furnace (10) comprising:
a dust discharge valve (18) located downstream of a dust discharge opening (16) of said dry dust collector (10); and
a fully enclosed dust conveying system located downstream of said dust discharge valve (18) and comprising an electrically powered mechanical conveyor (22);

characterized by a control system (32) that is designed so as to control the opening of said dust discharge valve (18) in function of the residual conveying capacity of the dust conveying system, which is determined by continuously measuring electrical power absorbed by said mechanical conveyor (22)."

"2. A device for discharging dust from a dry dust collector of a blast furnace (10) comprising:
a dust discharge valve (18) located downstream of a dust discharge opening (16) of said dry dust collector (10); and
a fully enclosed dust conveying system located downstream of said dust discharge valve (18) and comprising a pneumatic conveying system;
characterized by a control system (32) that is designed so as to control the opening of said dust discharge valve (18) in function of the residual conveying capacity of the dust conveying system, which is determined by continuously measuring the pressure in said pneumatic conveying system."

V. The appellant essentially argued that the devices set out in independent claims 1 and 2 and depicted in Figures 1 and 2, respectively, of the application as filed were based on the same inventive concept. In order to prevent clogging of the conveying system, the discharge valve (18) was operated in response to the conveying load that was continuously monitored by control unit (32). If the conveying load in the mechanical or pneumatic transport system exceeded a predetermined threshold value, valve (18) was closed.

The sealed feeder-hopper (28) of the additive material feed system (25) described in Figure 4 of document D1 was different in function from a dust collector of a blast furnace referred to in claims 1 and 2. In particular, the known feed system neither included a mechanical conveyor nor was it equipped with a control system which responded to the pressure within the pneumatic transport system. Novelty of the subject of matter of independent claims 1 and 2 was, therefore, given.

Reasons for the Decision

1. The Board draws the attention of the party to the fact that, since this decision is issued after the entry into force of the EPC 2000 on 13 December 2007, under the transitional provisions some Articles and Rules of the new version of the EPC have to be applied. When Articles or Rules of the old version of the EPC (1973) are cited, the year is indicated.

The transitional provisions according to Article 7 of the Act revising the EPC of 29 November 2000 and the Decisions of the Administrative Council of 28 June 2001 and of 7 December 2006, Article 2, have been applied.

2. The appeal is admissible.
3. *Articles 123(2) EPC, 82, 84 EPC (1973)*
 - 3.1 Claim 1 derives from a combination of the subject matter of claims 1 and 2 and the technical details

given on page 6, line 27 to page 7, line 6 and in Figure 1 of the application as originally filed.

Independent claim 2 results from a combination of claims 1 and 4 and the technical features given in the passage on page 7, second paragraph relating to the embodiment depicted in Figure 2 of the application as originally filed.

Dependent claim 4 corresponds to claim 5 as filed, whereas dependent claim 5 is based on the technical disclosure given on page 7, lines 7 to 11 and Figures 1 and 2 of the application as originally filed.

The wording of dependent claims 3 and 6 to 14 is unchanged and corresponds to the claims as filed numbered respectively.

3.2 The Board concurs with the appellant's position that both embodiments of the device set out in independent claims 1 and 2, respectively, are based on the same general inventive concept which resides in detecting the conveying load in the dust conveying system and, in response thereto, controlling the opening of valve (18). The requirement of unity of invention pursuant to Article 82 EPC (1973) is, therefore satisfied.

3.3 In addition, the wording of independent claims 1 and 2 is clear since they define by which means the opening of the discharge valve (18) is controlled. Since the definition of the two alternative solutions in two independent claims, instead of a single independent claim, is more clear, the provision of two independent claims is more appropriate (cf. Rule 29(2)c EPC (1973)).

3.4 Hence, there are no objections to the amended set of claims with respect to Articles 123(2) EPC, 82 and 84 EPC (1973).

4. *Novelty; Article 54 EPC (1973)*

In its decision, the examining division relied exclusively upon the additive material feed system (25) disclosed in Figure 4 of the document D1.

However, document D1 clearly avoids using secondary air or pneumatic transport equipment or any mechanical or hydraulic transfer of raw material to the burden for the blast furnace as set out in D1, column 3, lines 43 to 51; column 5, lines 18 to 27. This is in stark contrast to the device for discharging dust set out in independent claims 1 and 2 of the application which comprises either a mechanical conveyor or a pneumatic conveying system.

The subject matter of independent claims 1 and 2 is therefore novel over the disclosure of document D1.

5. Without prejudging the issue of which document could actually qualify as representing the closest prior art when considering the technical field the application belongs to, the Board nevertheless refers e.g. to document

D3: Patent Abstract of Japan, vol. 009, no. 041 (C-267), 21 February 1985 & JP 59 185711 A (Sumitomo Kinzoku Kogyo KK).

Like the application, this document seems to disclose a control unit (9) for opening and closing the feeding-out-valves (4, 5, and 6) in the bottom end of a dust remover (1) for a blast furnace and including a mechanical conveyor (2). This document appears to be much closer than the additive material feed system given in document D1.

6. *Remittal*

Since the decision of refusal was exclusively based on the ground of lack of novelty, now removed, the Board finds it appropriate to remit the case to the first instance for further prosecution.

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 for further prosecution.

The Registrar:

The Chairman

V. Commare

T. Kriner