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**D E C I S I O N**  
**of 18 June 2002**

**Case Number:** T 0562/99 - 3.2.3  
**Application Number:** 92307195.5  
**Publication Number:** 0529843  
**IPC:** B02C 9/04, B02B 5/02

**Language of the proceedings:** EN

**Title of invention:**  
Method of and system for flour milling

**Patentee:**  
Satake Corporation

**Opponent:**  
Bühler AG

**Headword:**  
-

**Relevant legal provisions:**  
EPC Art. 54, 56

**Keyword:**  
"Novelty - (yes)"  
"Inventive step - non-obvious combination of known features"

**Decisions cited:**  
-

**Catchword:**  
-



**Case Number:** T 0562/99 - 3.2.3

**D E C I S I O N**  
**of the Technical Board of Appeal 3.2.3**  
**of 18 June 2002**

**Appellant:** Bühler AG  
(Opponent) CH-9240 Uzwil (CH)

**Representative:** -

**Respondent:** Satake Corporation  
(Proprietor of the patent) Chiyoda-ku  
Tokyo 101 (JP)

**Representative:** Hallybone, Huw George  
CARPMAELS & RANSFORD  
43, Bloomsbury Square  
London WC1A 2RA (GB)

**Decision under appeal:** Interlocutory decision of the Opposition Division  
of the European Patent Office dated 16 March  
1999, posted on 30 March 1999 concerning  
maintenance of European patent No. 0 529 843 in  
amended form.

**Composition of the Board:**

**Chairman:** C. T. Wilson  
**Members:** F. Brösamle  
M. Aúz Castro

## Summary of Facts and Submissions

I. With decision of 16 March 1999, posted on 30 March 1999, the opposition division maintained European patent No. 0 529 843 in amended form since the subject-matter of claims 1 and 4 was novel and inventive essentially in the light of

(D1) EP-B-0 373 274

(D3) CH-A-640 750

(D5) DD-B-84 795

(D8) EP-A-0 346 872

(D9) EP-A-0 218 012 and

(D10) "Die Mehlmüllerei", Northern Publishing Company, pages 156, 158, 202, 203, 205, 206, 208 and 209.

II. The independent claims underlying the above decision to maintain the European patent in amended form read as follows:

"1. A flour milling method comprising the steps of polishing (10) the raw wheat and milling (50) the polished wheat, characterized by further comprising a step of cleaning (20) with water the polished wheat to remove bran powder which has entered into longitudinal creases of wheat grains during said polishing step, subsequent to said polishing step."

"4. A system for flour milling comprising:

a polishing means (10) for polishing the raw wheat to produce wheat kernels; and a milling means (50) arranged downstream of said polishing means (10) for milling and pulverizing the wheat kernels; characterized in that it also comprises a cleaning means (20) arranged downstream, of said polishing means (10) and upstream of said milling means (50), for cleaning with water the polished wheat kernels to remove bran powder which has entered into longitudinal creases of wheat grains while the raw wheat is being polished by said polishing means."

III. Against this interlocutory decision of the opposition division the opponent - appellant in the following - lodged an appeal on 12 May 1999 paying the fee on the same day and filing the statement of grounds of appeal on 14 July 1999. The appellant argued that the claimed subject-matter was not novel and inventive so that the decision under appeal had to be set aside.

IV. Following the board's Communication pursuant to Article 11(2) RPBA oral proceedings were held on 18 June 2002 in which the appellant and the patentee (respondent) essentially brought forward the following arguments:

(a) appellant

- the problem to be solved by the invention would be to remove bran powder from the creases of wheat kernels;
- removal of particles from a kernel could be seen

as a cleaning step which according to the prior art could be carried out dry or wet;

- (D1) disclosed a cleaning step based on brushing bran powder from the creases of wheat kernels whereas (D10) reflecting handbook knowledge dealt with washing of (wheat) kernels essentially to dislodge impurities from its creases prior to polishing;
- (D3) and (D8) were based on cleaning with water, (D8) applying an excess of water contacting the kernels so that removal of any unwanted substances residing in the creases of the kernels were achieved without knowing the claimed invention so that a novelty objection was justified;
- even if the claimed subject-matter would be acknowledged as novel it was not based on inventive step since the known brushing step had only to be replaced by a washing step taught in (D10) and since it was irrelevant in this respect whether the wheat kernels were raw kernels or were already polished;
- it had to be considered that in cases where very clean kernels were wanted, water cleaning was a must so that its application in a different context, namely after any polishing step(s), could not be seen as an inventive contribution to the prior art; claims 1 and 4 did not define inventive subject-matter.

(b) respondent

- the washing step in (D10), was carried out prior to further treatment and milling thereof, and involved heavy agitation of the kernels during which damage might be caused;
- the claimed invention started, however, from the prior art according to (D1) which disclosed steps following the above cleaning step according to (D10), namely polishing to remove the bran of the wheat kernels, thereafter brushing bran powder from the creases of the polished kernels and finally milling thereof;
- the invention aimed at enhancing the effectivity of the bran powder removal and was based on a washing step following polishing and prior to milling; washing was carried out with an excess of water in contrast to a wetting step also known in the art to create favourable milling conditions;
- (D8) was based only on wetting and even if its water application could be seen as a washing step it would be **concurrent** with polishing and served the purpose of enhancing friction of the kernels when being polished;
- (D3) and (D9) again related to humidifying not washing machines and (D1) and (D5) were based on brushing including a hint to a severe wear of the brushes in (D5);
- not knowing the claimed invention a skilled person would not be led from the prior art to be considered to the claimed invention.

- V. The appellant requests to set aside the decision under appeal and to revoke European patent No. 0 529 843.

The respondent requests that the appeal be dismissed (main request), by way of auxiliary request with the proviso that the patent be maintained on the basis of claims 1 to 6 filed on 20 May 2002 as auxiliary request, by further auxiliary request that the claims of the main and auxiliary request be restricted to the method claims.

### **Reasons for the Decision**

1. The appeal is admissible.

#### *Main request*

2. *Amendments*

- 2.1 The amendments of claims 1 and 4 of the **main request** underlying the impugned decision are clearly allowable since water was originally disclosed as the cleaning fluid; this is also true for the functional term "to remove bran powder ... longitudinal creases of wheat grains ...", see for instance EP-B1-0 529 843, column 9, lines 28 to 32, and lines 47 to 55 (corresponding to the originally filed documents), so that the requirements of Article 123(2) EPC are met.
- 2.2 The addition of the above features to claims 1 and 4 has to be seen as narrowing the scope of protection so that these claims are not open to an objection under Article 123(3) EPC.

3. *Novelty*

3.1 With respect to (D8) the appellant raised a novelty-objection which cannot be followed by the board for the following reasons:

3.2 According to Figure 2 of (D8) a two-step polishing is carried out, the first being in a grinding-type polisher and the second being in a friction-type polisher in which polishing in contrast to claims 1 and 4 is carried out **concurrent** with the application of water for enhancing the friction of the wheat kernels and the polishing effect.

3.3 Even if the known application of water were considered as washing the crucial features of claims 1 (washing **subsequent** to polishing) and 4 (cleaning means "20" arranged **downstream** of the polishing means) are not anticipated by (D8).

3.4 Under these circumstances the subject-matter of claims 1 and 4 is novel, Articles 54 and 100(a) EPC.

4. *Inventive step*

4.1 The nearest prior art is seen in (D1) which document addresses the problem of the present invention, namely to polish the wheat kernels and to remove bran powder resulting from the polishing process and residing in the creases of the kernels from the creases before the wheat kernels are further treated and milled.

4.2 In contrast to claims 1 and 4 the cleaning step in (D1) is carried out by brushing, see page 5, lines 53 to 56, and page 8, lines 49 to 51, and claims 13, 26 and 32.



Removal of bran powder according to (D1) is problematic not only for reasons of wear of the brushes as set out in (D5), see column 3, lines 29 to 32, but also for reasons of its limited effectiveness.

4.3 Starting from (D1) the technical problem to be solved by the invention is to improve the known cleaning step. According to claims 1 and 4 cleaning is carried out by the application of water subsequent to the polishing/polishing means in that the excess water is apt to carry away the bran powder which had absorbed water and had been loosened from the kernel's creases, see EP-B1-0 529 843. As set out in the patent specification thus a milling characteristic is improved.

4.4 It must now be decided whether or not a skilled person **not knowing the** claimed invention could derive hints to achieve the subject-matter of claims 1 and 4 in an obvious way.

4.5 It is basically true that cleaning of wheat can be carried out dry - according to (D1) and (D5) - or wet as in (D10).

As set out above "wetting", namely by applying a **limited** amount of water, as in (D3) and (D8) is irrelevant for the claimed invention since in this case **excess** water must be available to be absorbed by the bran powder residing in the creases of the polished kernels and since the amount of water must be such that the soaked bran powder could be washed away from the kernels to achieve the wanted effect, namely kernels freed from unwanted bran particles.

4.6 (D8) as a further relevant document to be seen as the starting point of the invention teaches against appellant's argument that the invention is no more than the replacement of the brushing step by a washing step since in (D8) there is **no clear separation** of polishing and wetting, and - if existent - since these steps contrary to claims 1/4 are carried out **concurrently**. Replacement of brushing would therefore not necessarily result in a washing step which would be carried out **subsequent to polishing**.

4.7 Appellant's main argument with respect to the issue of inventive step was based on (D10) from which handbook washing of wheat is clearly known, however, in a context different from claims 1 and 4, since the washing step according to (D10) is a step carried out with **raw**/untreated wheat and aims at the removal of unwanted substances like dirt, soil, stones, etc., and has **not as its objective** to achieve a **bran-free wheat** kernel. Even if a skilled person made use of a washing step *per se* known from (D10) he would have had to decide **when** this washing step had to be carried out.

Respondent pointed to page 203, last paragraph, where a skilled person is clearly taught that the wheat kernels during washing/drying are heavily agitated ("wird das Getreide...heftig herumgewirbelt und...nachgewaschen"). The board is convinced that this information of (D10) would be an obstacle for a skilled person since contrary to the **raw wheat** dealt with in (D10) the washing step according to claims 1/4 is carried out on polished kernels which are by far **more sensitive** against impacts from agitators than raw wheat kernels.

4.8 The board is therefore convinced that under these

circumstances a skilled person primarily would not consider (D10) and that, even if he did, would not directly arrive at the subject-matter of claims 1/4 so that even a combination of (D1) or (D8) with (D10) could not render obvious the claimed invention.

This is also true for further documents (D3) and (D9) relating basically to humidifying and not to washing machines and for (D5) in which wear of the cleaning brushes is discussed without, however, clearly teaching away from the application of brushes.

4.9 The board comes therefore to the result that there existed no incentive for a skilled person, not knowing the invention, to combine the pieces of prior art to be considered and that an inventive endeavour was necessary to achieve the subject-matter of claims 1 and 4, Articles 56 and 100(a) EPC.

4.10 As a result claims 1 and 4 have to be maintained as have their dependent claims 2, 3, 5 and 6.

#### *Auxiliary requests*

5. The main request being already allowable there is no need to deal with the merits of the auxiliary requests.

#### **Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:

A. Counillon

C. T. Wilson