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D E C I S I O N
of 19 June 2006

Case Number: T 1257/04 - 3.2.07

Application Number: 95942289.0

Publication Number: 0757973

IPC: C03B 33/027

Language of the proceedings: EN

Title of invention:
Apparatus for working glass sheet

Patentee:
BANDO KIKO CO. LTD.

Opponent:
Tamglass Ltd. Oy

Headword:

-

Relevant legal provisions:
EPC Art. 54, 56, 114(2), 123(2)(3)

Keyword:
"Statement by employee sufficient to prove publication (no)"
"Late filed document admitted (no)"
"Novelty (yes)"
"Inventive step (no)"

Decisions cited:

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Catchword:

-



Case Number: T 1257/04 - 3.2.07

D E C I S I O N
of the Technical Board of Appeal 3.2.07
of 19 June 2006

Appellant: Tamglass Ltd. Oy
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Representative: Grünecker, Kinkeldey,
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Respondent: BANDO KIKO CO. LTD.
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Representative: Senior, Alan Murray
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
20 August 2004 concerning maintenance of
European patent No. 0757973 in amended form.

Composition of the Board:

Chairman: C. Holtz
Members: P. O'Reilly
H. Hahn

Summary of Facts and Submissions

- I. Opposition was filed against European Patent No. 0 757 973 as a whole based on Article 100(a) EPC (lack of novelty and lack of inventive step).

The Opposition Division decided to maintain the patent in amended form in accordance with the main request of the proprietor.

- II. The appellant (opponent) filed an appeal against the decision of the Opposition Division.

- III. The appellant requested that the decision under appeal be set aside and the patent be revoked.

The respondent (patent proprietor) requested that the appeal be dismissed. Alternatively, the respondent requested that the decision under appeal be set aside and the patent be maintained in amended form in accordance with the auxiliary request filed with letter of 16 May 2006.

- IV. Oral proceedings were held before the Board on 19 June 2006.

- V. The independent claim of the patent as main request reads as follows:

"1. A glass-plate working apparatus comprising:
a glass plate carrying-in section (2);
a main cut-line forming section (3) disposed in proximity to said glass plate carrying-in section;

a glass plate bend-breaking section (4) disposed in proximity to said main cut-line forming section;

a glass plate peripheral-edge grinding section (5) disposed in proximity to said glass plate bend-breaking section; and

a glass plate carrying-out section (6) disposed in proximity to the glass plate peripheral-edge grinding section,

characterised in that each of said main cut-line forming section (3), said glass plate bend-breaking section (4), and said glass plate peripheral-edge grinding section (5) is arranged to concurrently process at least two glass plates, said glass plate peripheral-edge grinding section (5) being provided with at least two grinding heads (123, 124) and a common moving device (125) for relatively moving said at least two grinding heads with respect to the respective glass plates in at least one direction."

The independent claim of the first auxiliary request reads as follows (amendments when compared to claim 1 of the main request are depicted in bold):

"1. A glass-plate working apparatus comprising:

a glass plate carrying-in section (2);

a main cut-line forming section (3) disposed in proximity to said glass plate carrying-in section;

a glass plate bend-breaking section (4) disposed in proximity to said main cut-line forming section;

a glass plate peripheral-edge grinding section (5) disposed in proximity to said glass plate bend-breaking section; and

a glass plate carrying-out section (6) disposed in proximity to the glass plate peripheral-edge grinding section,

characterised in that each of said main cut-line forming section (3), said glass plate bend-breaking section (4), and said glass plate peripheral-edge grinding section (5) is arranged to concurrently process at least two glass plates, said glass plate peripheral-edge grinding section (5) being provided with at least two grinding heads (123, 124) and a common moving device (125) for relatively moving said at least two grinding heads with respect to the respective glass plates in at least one direction, **said main cut-line forming section (3) being provided with at least two main cut-line forming heads (23, 24) and a common moving device (25) for relatively moving said at least two main cut-line forming heads with respect to the respective glass plates.**"

VI. The documents cited in the present decision are the following:

D1: EP-B-0 217 658

D2: Leaflet from Bottero entitled "Automotive glass"

D2.1: Statement from Mr. Yli-Vakkuri dated 19 July 1997

D2a: Leaflet from Bottero entitled "Divisione Vetro Piano"

D2a.1: Statement from Mr. Yli-Vakkuri dated 5 May 2006

D3: "Cutting and grinding float glass" by Fritz Stimpfig Jr. in Glass-Technology International 4/1994.

D4: EP-B-0 477 070.

VII. The arguments of the appellant may be summarised as follows:

- (i) D2a and the statement by Mr. Yli-Vakkuri (D2a.1) should be admitted into the proceedings. D2a supplements the teaching of D2. D2a bears a date of 9/94 which was just two months before the glass fair "GLASTEC'94" took place in November 1994. It is inconceivable that a company would print such a leaflet shortly before a major fair and then not distribute it. Moreover, the statement of Mr. Yli-Vakkuri confirms that this leaflet actually was distributed at the fair. Because of their relevance D2a and D2a.1 should be admitted into the proceedings.

Also D4 should be admitted into the proceedings. This document shows in its introductory paragraphs the extent of the general knowledge of the skilled person before the filing date of D4. D4 is therefore filed not as a prior art document but as a piece of evidence.

- (ii) D2 forms part of the state of the art. There is a handwritten remark on the document that it is from a fair in 1994. In his statement dated 19 July 1997 (D2.1) Mr. Yli-Vakkuri confirms that he received the document at "GLASTEC'94" in November 1994.

D2 takes away the novelty of claim 1 of the main request. The production line is shown with centering, cutting, grinding and unloading stations being designated. There is also a break-

out section visible between the cutting and grinding sections. On the last page various production lines are shown. Two of these production lines are twin lines which have twice the capacity of two single lines. Parallel cutting and grinding sections are clearly visible. Although the grinding section only shows one grinding head there in fact must be two of these serving the parallel grinding sections since otherwise the capacity of the twin line machines would not be twice the capacity of the single line machines. There is a beam visible between the two parallel grinding sections and the depicted grinding head is carried on this beam. The non-depicted grinding head must also be carried on this beam. It is also disclosed that the break-out section can be mechanical, i.e. involving bending.

Also, D3 takes away the novelty of claim 1 of the main request. D3 describes a cutting machine, a break-out machine and a grinding machine. The grinding machine can grind two pieces of glass simultaneously (see box on page 93) and two grinding heads are visible in figure 2. Examples of production lines are given at the end of the document. Example 1 includes one of each of the cutting, break-out and grinding machines described previously in the article. In the schematic diagram of the arrangement the grinding machine is shown processing two glass plates simultaneously in parallel. Although this example refers to a production line this arrangement falls within the scope of the term "apparatus" as specified in claim 1 since this term is sufficiently broad to

include machines linked together to form a line. Also the wording of claim 1 does not require that the concurrent processing must occur in the same section, only that there must be concurrent processing of two glass plates in the apparatus as a whole. This occurs in D3. Also, in D3 it is stated on page 92, right hand column that there is an overhead bridge which contains the grinding carriage and that the bridge moves in one direction whilst the carriage moves in the perpendicular direction. Therefore, the two grinding heads are carried on a common moving device.

- (iii) The subject-matter of claim 1 of the main request lacks an inventive step. Starting from D3 the problem to be solved is to overcome a bottleneck. The solution to this problem is obviously to double the capacity at the bottle neck by providing concurrent processing of the glass plates. This solution is already present in D3 for the grinding section and it would be obvious to apply it to the other sections when a problem arises with one or more of them.

The subject-matter of claim 1 also lacks an inventive step starting from D1. In order to increase the capacity the skilled person would simply take two apparatuses according to D1 and run them in parallel. In doing so the skilled person would combine those parts which could be combined. To this end he would provide a common moving device for the grinding heads as is known from D3.

- (iv) The subject-matter of claim 1 of the auxiliary request lacks an inventive step. When providing concurrent processing for the cut-line forming section the skilled person would follow the example already given in D3 with respect to the grinding section and provide the cutting heads of the cut-line forming section on a common moving device. The skilled person thus arrives at the subject-matter of claim 1 in an obvious manner.

VIII. The arguments of the respondent may be summarised as follows:

- (i) D2a and the corresponding statement by Mr. Yli-Vakkuri dated 15 May 2006 (D2a.1) should not be admitted into the proceedings because these documents are late filed and the publication of D2a has not been proven. The figures "9/94" in D2a are not necessarily a date. Even if these figures are a date it is well known that projects are often delayed or never come to fruition so that such a date is not proof of a date of publication. Mr. Yli-Vakkuri is an employee of the appellant and hence is not independent.

D4 should not be admitted into the proceedings because it is late filed and not relevant. The introductory paragraphs of the document refer to known facts. However, they do not indicate whether these facts are generally known or specifically known. In the absence of an indication in these paragraphs of the basis for the statements it

cannot be concluded that they reflect the general knowledge of the person skilled in the art.

- (ii) With regard to novelty, D2 should not be considered to be part of the state of the art since it has not been proven that this document was made available to public before the priority date of the patent in suit. The appellant relies on a handwritten remark on the document mentioning a fair in 1994, together with a statement from Mr. Yli-Vakkuri dated 19 July 1997 that he obtained the document at "GLASTEC'94" in November 1994. It is not known who made the hand rewritten remark or when it was written. There is no printed date on the document. Mr. Yli-Vakkuri is an employee of the appellant and hence is not independent. The obligation is on the appellant to prove the public availability of the document.

Even if D2 were available to the public before the filing date of the patent in suit it does not take away the novelty of claim 1 of the main request. It is not shown in D2 that there is a separate break-out section as required by claim 1. Only one grinding head is shown and even if it may be implicitly necessary to have a second grinding head it is not implicitly disclosed that this second grinding head is provided on a common moving device. It is not clear from the drawings that the part of the arrangement which the appellant suggested is a beam actually is a beam. Since the drawings are schematic and not technical only limited technical disclosure can be derived from them.

The subject-matter of claim 1 of the main request is novel over D3. D3 does not disclose an apparatus but rather a production line. The meaning of the term "apparatus" derives from the patent itself which was an improvement over D1. D1 disclosed the replacement of a production line by an apparatus. Thus, a distinction is made between an apparatus and a production line. D3 also does not disclose concurrent processing by the cut-line forming section and the glass plate bend-breaking section as required by claim 1. The appellant has misinterpreted the meaning of claim 1 in this respect. The claim clearly requires that each of the sections must process the at least two glass plates concurrently and not just that at least two glass sheets must be processed concurrently somewhere in the cut-line forming section, the glass plate bend-breaking section and the grinding section.

(iii) The subject-matter of claim 1 of the main request involves an inventive step. There is no hint in D3 to arrange the cut-line forming section and the glass plate bend-breaking section to process glass plates concurrently. There is no bottleneck in these sections, which have a much higher capacity than the grinding section. Therefore, there is no reason to increase the capacity of these sections since such an increase would not have an effect.

(iv) The subject-matter of claim 1 of the auxiliary request involves an inventive step. The extra feature of this claim compared to claim 1 of the

main request is a further step away from D3. There is a prejudice against taking the same measure as used for the grinding machine since for a cutting head it is not just sufficient to move it in two perpendicular directions but also the cutting heads must be orientated about a vertical axis in order to provide the correct cutting angle.

Reasons for the Decision

1. *Late filed documents*

- 1.1 With the grounds of appeal the appellant filed a new document which he designated as D2a. This document is an extract of a brochure. This brochure is a different brochure to the brochure of D2 which was filed with the notice of opposition. D2a bears the indication "9/94". No evidence regarding the public availability of the document was filed with the grounds of appeal. One month before the oral proceedings before the Board the appellant filed a statement from Mr. Yli-Vakkuri (D2a.1) to the effect that he had received the leaflet at the glass fair "GLASTEC'94" in November 1994. Mr. Yli-Vakkuri is an employee of the appellant. This statement and the above-mentioned indication are the sole pieces of evidence regarding the public availability of D2a and the possible date of such availability.

In the view of the Board the indication "9/94" on the brochure is of little value as evidence of public availability. Even if this is meant to be a printing date such dates are entered into the draft of the brochure before the brochure is actually printed. There

may be a discord between the intended printing date as in the draft and the actual printing date. There may further be a delay between the printing of the brochure and its distribution if it is distributed at all. There may therefore be a considerable delay between the draft printing date and any actual publication. It is well known that the printing of a brochure may be ordered in anticipation of a product launch but that then the product launch is delayed or does not come to fruition. The brochure may hence never be made available to the public or only made available at a much later date than the draft printing date. For these reasons dates printed on brochures have little value without corroborative evidence.

The statement of Mr. Yli-Vakkuri was signed on 5 May 2006 and is related to events which took place in November 1994, i.e. over eleven years earlier. The statement gave no indication of why Mr. Yli-Vakkuri has such a precise memory of the trade fair in 1994. In this respect it may be noted that the respondent has little possibility to provide counter evidence since he would have to prove a negative fact, i.e. that a brochure was not available, which relates to an event that took place more than eleven years previously. If the statement is accepted at face value then this mere statement by an employee of the appellant could, depending upon the content of the brochure, lead to the revocation of the patent. In the opinion of the Board an evaluation of this piece of evidence leads to the conclusion that it is not sufficient to prove that D2a was undoubtedly made available to the public before the priority date of the patent in suit.

It is therefore not immediately apparent that on the basis of the available evidence that D2a was made available public before the priority date. In view of this finding the Board exercises its discretion pursuant to Article 114(2) EPC not to admit D2a and D2a.1 into the proceedings.

- 1.2 D4 was filed by the appellant one month before the oral proceedings before the Board. The appellant considered that the document showed that certain matters belonged to the common general knowledge of the skilled person before the priority date of the patent in suit. The document was therefore intended to be considered as evidence in this respect. To this end the appellant relied on the introductory part of the description of the document which explained what was known. However, the part of the description relied upon by the appellant did not indicate whether information from a specific document or from general knowledge was being discussed. In this respect one of the passages (cf. column 2, lines 10 to 29) referred to an earlier patent publication. Since it was unclear as to the type of prior art that was being discussed in D4 the Board considered that it could not be concluded that D4 gave any information regarding the common general knowledge. In view of these facts the Board decided that the document was not *prima facie* relevant and exercised its discretion pursuant to Article 114(2) EPC not to admit the document into the proceedings.

Main request

2. *Novelty*

2.1 D2 is a brochure which does not bear any printed date. On the copy supplied during the opposition proceedings there is a handwritten remark in Finnish indicating 1994 and a trade fair. The person who wrote that remark and the date when it was written are unknown. There is also a statement from Mr. Yli-Vakkuri dated 19 July 1997 (D2.1) that he received the document at the "GLASTECH'94". This statement was filed with the notice of opposition in August 2002. In contrast to the statement (D2a.1) mentioned above in connection with D2a, the statement D2.1 was written a little less than three years after the date on which the events referred to in the statement took place so that a memory of the event might be considered to be possible. Nevertheless, the Board again notes that the main evidence lies with a statement by an employee of the appellant that the relevant document was available to the public. The Board considers that it would be difficult for the respondent to provide counter evidence since he would have to prove a negative fact, that a brochure was not available, which relates to an event that took place eight years before the notice of opposition was filed and hence eight years before it was presented to the respondent. As already indicated with respect to D2a, if the statement is accepted at face value then this mere statement by an employee of the appellant could, depending upon the content of the brochure, lead to the revocation of the patent.

In the opinion of the Board an evaluation of this evidence leads to the conclusion that it is not sufficient to prove that D2 was undoubtedly made available to the public before the priority date of the patent in suit.

2.2 The appellant considered that the subject-matter of claim 1 is disclosed in D3. D3 is a magazine article whose publication date has not been disputed by the respondent. The article describes separately a cutting machine, a break-out machine and a grinding machine. Towards the end of the article examples of production lines are described. Example 1 of the production line links together the three machines which are described previously in the article. The cutting and break-out machines are simply described as machines. The grinding machine is stated to be capable of grinding two pieces of glass simultaneously (see box on page 93). The grinding machine is described as having a bridge travelling in a Y direction and a grinding carriage on the bridge which travels in the X direction (see page 92, right hand column). The grinding machine is further stated to have two grinding stations and a pair of grinding wheels (see page 93, right hand column).

2.3 The parties disagreed on the questions of whether the production line disclosed in D3 could be considered to constitute an apparatus in the sense of claim 1 and whether the cut-line forming and bend-breaking sections process at least two glass plates concurrently in the sense of claim 1.

2.4 The normal meaning of the term "apparatus" is that it forms a unitary machine. A collection of machines where

the output of one machine becomes the input of another machine, as in D3, would not normally be considered to be an apparatus. This view is consistent with the description of D1, compared to which the patent in suit is meant to disclose an improvement. In D1 a distinction is made between a production line and an apparatus (cf. D1, column 1, lines 22 to 43 and column 1, line 65 to column 2, line 7). The Board agrees with the respondent that the production line of D3 cannot be considered to be an apparatus in the sense of claim 1.

2.5 With respect to whether there is an absence of sections for concurrently forming cut lines and for bend-breaking at least two glass plates in D3 the Board agrees with the respondent. The appellant interpreted claim 1 to include within its scope that each section individually did not have to simultaneously process at least two glass plates, but that one section could be processing a glass plate concurrently with a different section. The Board cannot agree with this interpretation of the claim. The claim clearly states that each of the sections is arranged to concurrently process at least two glass plates. This means that each of the specified sections treats the two plates simultaneously, either by the section being provided with two processing arrangements or one processing arrangement working simultaneously on two plates. Neither of these possibilities is disclosed in D3 so that this feature of claim 1 is not disclosed in this document.

2.6 Therefore, the subject-matter of claims 1 is novel in the sense of Article 54 EPC.

3. *Inventive step*

3.1 The closest prior art is represented by D3. From the reasons given above with respect to the novelty of claim 1 over the disclosure of D3 it is clear that claim 1 is distinguished by the features that:

a): it is an apparatus, and

b): each of the main cut-line forming section and glass plate bend-breaking section is arranged to concurrently process at least two glass plates.

3.2 With respect to feature a), D3 discloses a production line. However, in D1 a production line was replaced by an apparatus. The disadvantages of a production line are explained in D1 (cf. column 1, lines 22 to 43). It is clear therefore to the skilled person that a production line may be replaced by an apparatus in appropriate circumstances.

3.3 With respect to feature b), the problem to be solved is to increase the capacity of the apparatus in the case that one of the sections specified in the feature proves to be a bottleneck. Such a problem would become known to the skilled person since it would be immediately apparent that one or both of these sections is slowing down the process because the capacity of the machine would be limited by the capacity of that section.

The skilled person seeking to solve this problem would already know from D3 that the grinding process is known to be slow. The solution disclosed in D3 is to provide

the grinding section with the means to process concurrently two glass plates (cf. box on page 93). It would therefore be obvious to the skilled person to apply this solution to the other processing sections as specified in claim 1. The respondent argued that the skilled person knows that the bottleneck is to be found at the grinding section since grinding takes longer than, for instance, cutting, so that the skilled person would have no reason to increase the capacity of the other processing sections. However, if the argument of the respondent is followed it would mean that the feature b) of claim 1 has no purpose. The Board cannot therefore accept this line of argumentation. The respondent suggested that the problem to be solved by feature b) is to provide an alternative. That however could only then be the problem if the feature of claim 1 and the corresponding feature in D3 had the same effect. This is not the case here since the feature of claim 1 has the effect of removing possible bottlenecks, which is not the case for the processing machines of D3.

- 3.4 Therefore, the subject-matter of claim 1 of the main request does not involve an inventive step in the sense of Article 56 EPC.

Auxiliary request

4. *Article 123(2)(3) EPC*

Claim 1 of the main request comprises the combination of claims 1 and 9 as granted with claim 9 having been dependent upon all preceding claims. The auxiliary request adds to claim 1 of the main request the feature

that was in claim 4 as granted which was also dependent on all dependent claims. Therefore, claim 1 of the auxiliary request was already contained among the claim combinations of the patent as granted which was not opposed under Article 100(c) EPC. Also, with the exception of the addition of reference numerals and the words "characterised in that" the claims as granted are identical to the claims as originally filed. The Board therefore concludes that claim 1 of the auxiliary request complies with Article 123(2)(3) EPC.

5. *Inventive step*

5.1 Claim 1 of the auxiliary request contains the extra feature compared to claim 1 of the main request that the cut-line forming section is provided with two cutting heads and a common moving device.

5.2 In D3 the grinding section is already provided with two grinding heads on a common moving device in order to provide concurrent grinding of two glass plates. Considering how to provide concurrent processing in the cut-line forming section it would be obvious to the skilled person to apply the same solution in that case, i.e. to provide two cutting heads on a common moving device. There is no technical indication in D3 which would indicate that such a measure may not be possible for the cut-line forming section, so that the skilled person would not be led away from the solution.

5.3 Therefore, the subject-matter of claim 1 of the auxiliary request does not involve an inventive step in the sense of Article 56 EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar:

Chair:

G. Nachtigall

C. Holtz