DECISION of 1 December 2003

Case Number: T 0835/01 - 3.2.7
Application Number: 94830493.6
Publication Number: 0677364
IPC: B28B 11/04
Language of the proceedings: EN

Title of invention:
A rotary glazing and decorating machine, in particular for ceramic tiles

Patentee:
SYFAL S.p.A.

Opponents:
EMILCERAMICA S.P.A
Technoitalia S.r.l
Sighinolfi, Sergio

Headword:
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Relevant legal provisions:
EPC Art. 108, 114(2), 54, 56
EPC R. 65(1), 67

Keyword:
"Missing statement of grounds"
"Reimbursement of appeal fee (rejected)"
"Late filed evidence (not admitted)"
"Novelty (yes)"
"Inventive step (yes)"

Decisions cited:
T 0372/99, T 0543/99

Catchword:
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Case Number: T 0835/01 - 3.2.7

DECISION of the Technical Board of Appeal 3.2.7 of 1 December 2003

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Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 15 June 2001 rejecting the opposition filed against European patent No. 0677364 pursuant to Article 102(2) EPC.

Composition of the Board:

Chairman: A. Burkhart
Members: H. E. Hahn
         C. Holtz
Summary of Facts and Submissions

I. Opponents I, II and III lodged appeals against the decision of the Opposition Division to reject the oppositions and to maintain the European patent No. 0 677 364 in unamended form.

II. The oppositions had been filed against the patent as a whole and were based on Article 100(a) EPC (lack of novelty and lack of inventive step) and Article 100(b) EPC (that the patent did not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art).

The Opposition Division held that the invention was sufficiently disclosed, that the subject-matter of the independent claims 1 and 9 was novel and inventive with respect to the prior art documents concerned. Late filed documents B11-B18 were disregarded by the Opposition Division according to Article 114(2) EPC as not being *prima facie* relevant.

III. With letter of 8 October 2001 appellant II withdrew its appeal and requested reimbursement of the appeal fee.

With a communication of the Board dated 30 July 2002 appellant II was informed that the withdrawal of an appeal could not result in reimbursement of the appeal fee.

IV. Appellant I was advised in a communication of the Board of 9 November 2001 that no grounds for its appeal had been filed, and was further referred to Rule 84a and
Article 122 EPC. This appellant was also invited to file observations, but did not respond.

V. The most relevant documents of the prior art submitted are considered to be:

B1 = GB-A-2 207 092

C1 = IT-A-01 259 996


C3 = EP-A-0 089 616

C4 = GB-A-2 059 296

VI. The independent claims 1 and 9 under consideration read as follows:

"1. A rotary machine for decoration and glazing, especially for ceramic tiles, comprising:
   a mobile rest plane (1) for ceramic tiles (2) on which the tiles (2) are conveyed in a preestablished direction;
   a rotary decorating and glazing apparatus positioned above the rest plane (1), characterised in that it further comprises:
   a matrix cylinder (3), rotatatively mobile about an axis of the cylinder (3) and having at least one elastically deformable portion exhibiting at a periphery thereof a smooth cylindrical external surface shin (30) made in an elastomer material on which a matrix is cut, said matrix being composed of a plurality of cavities (31);"
at least a first doctor (4) operating contactingly with the skin (30) of the matrix cylinder (3) such as to scrape thereagainst and remove therefrom an excess of glaze deposited thereon and adhering thereto; said first doctor (4) combining a scraping and cleaning function with a glaze-remixing function which at each turn of the matrix cylinder (3) refills, at least partially, the cavities (31) with glaze; the matrix cylinder (3) being provided with a rotation sense about an axis thereof, and being adjustable with respect to the rest plane (1) such that the skin (30) rotates without dragging against and with a preestablished pressure upon a surface of a tile transiting on the rest plane (1)."

"9. A rotary decoration and glazing process, in particular for ceramic tiles, characterised in that it comprises:
arrangement of glaze on a matrix composed of a plurality of cavities (31) cut into a portion of a cylindrical and elastically-deformable smooth skin (30); removal by use of a doctor (4) of excess glaze deposited on the matrix cut into the skin (30); said doctor (4) also having a function of continually remixing the glaze and at least partially replenishing the glaze lodged in the cavities (31);
transfer of the glaze contained in the cavities (31) by direct contact, that is by rolling without dragging of the matrix set into the skin (30) on a transiting tile (2) upper surface."

VII. Appellant III requested that the decision under appeal be set aside and the patent be revoked in its entirety.
The respondent/patentee requested that the appeal be dismissed and the patent be maintained on the basis of claims 1 to 9 as granted and that oral proceedings be appointed in the case its main request would not be accepted.

VIII. With a communication dated 28 May 2003 the Board presented its provisional opinion not to admit late filed documents B11, B13 and C7 to C15 into the proceedings under Article 114(2) EPC for not being prima facie relevant. Furthermore, the Board acknowledged novelty of apparatus claim 1 and of process claim 9 although the appellant III had alleged a lack of novelty of the subject-matter of process claim 9. The Board finally stated that the subject-matter of the claims 1 and 9 seemed to involve an inventive step.

IX. With a fax of 13 October 2003 appellant III withdrew its request for oral proceedings.

X. Appellant III argued essentially as follows:

Novelty of apparatus claim 1 was acknowledged but a lack of novelty of the subject-matter of process claim 9 with respect to the document B11 and C1 was alleged. The appellant asserted that, since the doctor of the patent in suit does not comprise any feature distinguishing it from conventional doctors, any doctor contacting operating with a flexible matrix cylinder provided with cavities has an ink-remixing function. Thus the doctor (6) according to document B11 would reveal these functions as well as the doctor (52) according to document C1.
According to the first approach an objective technical problem on the basis of document B11, which is not limited to the field of semiconductor integrated circuits, is defined, i.e. to make the machine disclosed in B11 (which can be used for printing on objects that cannot withstand an excessive pressing force exerted by the printing roller) suitable for printing on flat, rigid objects like ceramic tiles. The provision of conveying means for transporting tiles and adjusting means for varying the distance between the conveying means and the matrix cylinder belongs to the common general knowledge. Therefore claim 1 lacks an inventive step in view of document B11 combined with any one of documents B1, B3, C1, C8 and C9 showing conveying and adjusting means. Similarly, process claim 9 lacks an inventive step for the same reasons.

The second approach is based on the closest prior art document C1 the process of which has already solved the problem of eliminating the risk of damaging and breaking tiles. Thus the objective technical problem to be solved by claim 1 is to provide a printing machine which is capable of improving the quality of printed images and in particular is capable of printing half-tones (cf. patent in suit, column 1, line 10; column 2, line 28). Since this problem is not peculiar to the ceramic field but relates generally to the printing field the skilled person aiming to solve said problem would take into consideration the disclosures originating from the whole field of printing (documents C10 to C12). By combining document C1 with any of the documents C10 to C12 the skilled person would derive the subject-matter of claim 1. Similarly, process
claim 9 lacks an inventive step since the skilled person would only have to adopt a process in which the printing roller of disclosure C1 is replaced by an intaglio printing roller, and a doctor is provided as is usual in intaglio printing systems.

XI. The respondent argued essentially as follows:

The process of claim 1 differs from that according to document B11 additionally in the following characteristics, namely (a) a rotary decorating and glazing apparatus is provided, which (b) is positioned above the rest plane, and (c) the doctor (4) combines a scraping and cleaning function with a glaze-remixing function which at each turn of the matrix cylinder (3) refills, at least partially, the cavities (31) with glaze. Characteristic (c) is linked to the properties of the glaze material and is thus not present in document B11. Characteristic (c) also depends on the correlation between the position of the doctor (4) with respect to the matrix cylinder (3) and the rotation direction thereof; this correlation requires that the matrix cylinder (3) is positioned above the tiles to be glazed, whereas in disclosure B11 this correlation is not present since the rotating cylinder is located below the wafer (13). With respect to document C1 the respondent stresses that the matrix of C1 is composed of a plurality of projections and reliefs whereas claim 9 requires a matrix composed of cavities. Furthermore, document C1 does not disclose the function of the doctor. Thus the claimed process is novel.

It was denied that document B11 represents the closest prior art and the view of the opposition division on
this issue was stressed (cf. summons for oral proceedings, point 8; and decision, point 8 of the reasons) and that B11 belonging to a much removed technical sector is neither suitable nor adaptable for transporting of tiles and for depositing glaze on tiles. Thus the hypothetical problem posed by the appellant is false, it would lead to a total distortion of the machine of document B11 and thus cannot be accepted. In any case neither document B11 nor any other document reveals the characteristic (c). With respect to the second approach the respondent stressed that document C1 does not disclose a matrix composed of a plurality of cavities but a plurality of projections which transfer the glaze. The new prior art documents C10-C12 do not introduce significant new elements with respect to the prior art already considered in the opposition proceedings, particularly with respect to what was already seen in documents C2, C3 and C4. These documents C10-C12 are simply not combinable with disclosure C1 as they relate to printing systems different to C1, but are similar to the systems described in documents C2, C3 and C4. With respect to the appellant’s statement concerning the substitution of the printing roller of document C1 with a usual intaglio printing roller (which exhibits an undeformable matrix) the skilled person would not obtain the solution of claim 9, which includes the use of a doctor which operates on a deformable matrix provided with cavities and which has the function of continually remixing the glaze and at least partially replenishing the glaze lodged in the cavities. Thus, the subject-matter of claims 1 and 9 includes an inventive step.
Reasons for the Decision

Formal issues

1. The appeal of appellant I is inadmissible for the following reasons: The appellant I filed a notice of appeal on 23 July 2001 and paid the fee for appeal on 19 July 2001. No grounds of appeal have been filed. The notice of appeal does not contain anything that could be regarded as a statement of grounds pursuant Article 108 EPC. As no written statement setting out the grounds of appeal has been filed, the appeal of the opponent I has to be rejected as inadmissible (Article 108 EPC in conjunction with Rule 65(1) EPC).

2. Appellant II filed a notice of appeal on 27 July 2001 and paid the fee for appeal on 27 July 2001. With letter dated 8 October 2001 appellant II withdrew his appeal and requested reimbursement of the appeal fee. Thus, appellant II is no longer a party to the proceedings.

3. Appellant II's request for reimbursement of the appeal fee must be rejected for the following reasons:

Rule 67 EPC is not applicable to the withdrawal of an appeal, since one of the conditions for reimbursement is that a substantial procedural violation occurred, whereas a withdrawal is a voluntary act of a party in question. This is confirmed by the existing jurisprudence of the EPO (cf. "Case Law of the Boards of Appeal of the European Patent Office", 4th Edition 2001, page 552; see decisions T 372/99 and T 543/99)
the withdrawal of an appeal does not result in reimbursement of the appeal fee.

4. The appeal of appellant III meets all the requirements of Rule 64 and Articles 106 to 108 EPC and is thus admissible.

**Admissibility of late filed documents B11 to B18 and C7 to C15**

5. The Board concurs with the finding of the Opposition Division which exercised its discretion under Article 114(2) EPC and disregarded the documents B11-B18 as not being *prima facie* relevant (compare reasons of the decision, point 7; and compare points 30 to 39 of the minutes of the oral proceedings).

6. The Board concurs with the respondent that documents C7 to C15, which were cited by appellant III for the first time in its grounds of appeal, are less relevant than the documents already on file (cf. letter of respondent dated 26 February 2002, point 2.2). As a consequence the Board exercises its discretion and disregards these documents C7 to C15 in accordance with Article 114(2) EPC for not being *prima facie* relevant.

**Novelty**

7. Novelty of apparatus claim 1 was undisputed by all parties. The Board concurs with the Opposition Division's view that the most relevant documents B1 and C1 only correspond to the preamble of apparatus claim 1.
8. Appellant III alleged a lack of novelty of process claim 9 with respect to the processes according to documents B11 and C1.

9. Document B11 was not allowed into the proceedings under Article 114(2) EPC for not being relevant (cf. point 5 above) and thus is not considered further.

10. Appellant III alleged that document C1 disclosed a rotary decorating and glazing process in particular for ceramic tiles, which comprised:

   arrangement of glaze on a matrix (31) composed of a plurality of cavities cut into a portion of a cylindrical and elastically-deformable smooth skin;

   removal by use of a doctor (52) of excess glaze deposited onto the matrix (31) cut into the skin; said doctor (52) also having a function of continually remixing the glaze and at least partially replenishing the glaze lodged in the cavities;

   transfer of the glaze contained in the cavities by direct contact, that is by rolling without dragging of the matrix (31) set into the skin on a transiting tile (4) upper surface.

11. The respondent's statements support the view that the "ink-remixing function" (contained in distinguishing characteristic (c) see point XI above) of the doctor (4) is a result of feeding the glaze from the top through the feed pipe (9) onto the upper part of the skin (30) of the matrix cylinder (3) and then maintaining the glaze in some sort of a trough formed between the
doctor (4) and the rotating matrix cylinder (3) which rotates in the direction of arrow (18). Thereby a mixing effect, particularly in the cavities should be obtained (compare patent, Figures 1 and 3). This mixing function will not be present if the glaze is not fed from the top but from the bottom since in this case the glaze is expected to drop down from the said matrix cylinder.

12. When considering the constellation and the materials of the scraping roller (44, smooth rubber), the distributing roller (41, smooth rubber), the metering roller (36, knurled steel), the printing roller (31, rubber) and the scraping roller (52, knurled steel) (cf. C1, pages 8 to 9; Figure 2) according to document C1, it seems to be evident that the matrix must be composed of a plurality of protruding reliefs and projections which transfer the glaze because otherwise the described machine would not allow to print the glaze only onto the intended areas of the tiles. Consequently, the glaze according to document C1 is not transferred from a plurality of cavities onto the tiles. Furthermore, the said rollers do not seem to provide the glaze-remixing function of the doctor as required by claim 9. Therefore the Opposition Division drew the correct conclusions with respect to document C1 (cf. reasons for the decision, points 5 and 6).

13. All other cited documents are less relevant than document C1.

14. The Board therefore concludes that the subject-matter of claims 1 and 9 is novel with respect to the submitted documents.
Inventive step

15. **Closest prior art**

The appellant argued that either document B1 or C1 represents the closest prior art.

As document B1 was not allowed into the proceedings under Article 114(2) EPC for not being relevant (compare point 5 above) it is not considered further, nor is any argument based thereon.

As stated in point 7 above, document C1 corresponds to the preamble of claim 1, and thus does not disclose the features of its characterising part. The same conclusion is fully valid for process claim 9. The Board concurs with the Opposition Division's view that the wording of claim 1 defines an apparatus for glazing of ceramic tiles and that the wording of claim 9 relates to a process for glazing ceramic tiles.

16. **Problem to be solved**

The Board concurs with the respondent that the problem to be solved is to provide a machine and a method for decorating and glazing ceramic tiles which obviates the drawbacks of the prior art including document B1 by being rapid and thereby not limiting the speed of a production line, and which does not require the continual presence of an operative to check on the quality of the final decoration and to keep the printing surfaces clean and conserve them so that a
screen can have a long production life (cf. patent, column 2, lines 15 to 26).

17. **Solution to the problem**

The problem is solved by a rotary machine for decorating and glazing ceramic tiles as defined in claim 1 and the rotary decoration and glazing process as defined in claim 9.

It is credible that the claimed measures provide an effective solution to the technical problem. The invention allows the decoration of unfired and deformed tiles without giving rise to breakage thereof, while maintaining a high level of printing quality. It can continuously print half-tones and it prints the decoration right up to the edges of the tiles, where the top surface meets the side surface, without causing damage to the print screen (cf. column 2, lines 24 to 31; column 5, lines 15 to 29).

18. The Board considers that the subject-matter of the independent claims 1 and 9 is not obvious for the person skilled in the art for the following reasons:

Document C1 does not disclose a matrix composed of a plurality of cavities but only of projections which transfer the glaze (cf. reasons of the decision, point 5). The systems according to documents C2-C4 use printing rollers having cavities for coating paper sheet or strip (C2, C3, C4) or of films (C4) and thus relate to printing systems different to the one disclosed by document C1, wherein protruding portions of the printing cylinder contain the printing ink for
coating flat surface articles such as ceramic tiles, laminates (cf. Figures 1 to 7). Consequently, these documents are simply not combinable with C1 since the skilled person would have to completely change the said systems without having any incentive to do so.

The same conclusion as for disclosure C1 is valid for document B1 as well, wherein, due to the disclosed flexographic printing device, the glaze is also held by the non-cavity portion of the printing cylinder.

With respect to the statement of appellant III, that the skilled person would substitute the printing roller of disclosure C1 with a commonly used intaglio printing roller, which exhibits an undeformable matrix, the Board holds that in this case the skilled person would not derive the solution of claim 9. This is due to the fact, that process claim 9 requires the use of a doctor which operates on a deformable matrix provided with cavities and which has the function of continually remixing the glaze and at least partially replenishing the glaze lodged in the cavities. The undeformable matrix of C1 will not provide the said function.

19. The subject-matter of the independent claims 1 and 9 thus involves an inventive step within the meaning of Article 56 EPC.

The same applies to the subject-matter of the dependent claims 2 to 8 which define further preferred embodiments of the apparatus according to claim 1.
Order

For these reasons it is decided that:

1. The appeal of appellant I is rejected as inadmissible.

2. The request of appellant II for reimbursement of the appeal fee is refused.

3. The appeal of appellant III is dismissed.

The Registrar: The Chairman:

D. Spigarelli A. Burkhart