DECISION
of 21 March 2006

Case Number: T 0623/04 - 3.2.05
Application Number: 95303034.3
Publication Number: 0684130
IPC: B31D 1/02
Language of the proceedings: EN
Title of invention: Labels and manufacture thereof
Patentee: Instance, David John
Headword: -
Relevant legal provisions: EPC Art. 54, 56
Keyword: "Novelty - main request (yes)"
"Inventive step - main request (no)"
"Inventive step - first auxiliary request (yes)"
Decisions cited: -
Catchword: -
Case Number: T 0623/04 - 3.2.05

Decision of the Technical Board of Appeal 3.2.05 of 21 March 2006

Appellant: Heidelberger Druckmaschinen AG Kurfürsten-Anlage 52-60 D-69115 Heidelberg (DE)

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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
19 March 2004 concerning maintenance of
European patent No. 0684130 in amended form.

Composition of the Board:
Chairman: W. Moser
Members: H. Schram
W. Zellhuber
Summary of Facts and Submissions

I. The appellant (opponent 04) lodged an appeal against the decision of the Opposition Division maintaining the European patent No. 0 684 130 in amended form.

The Opposition Division held that the grounds of opposition under Article 100(a) EPC (lack of novelty, Article 54 EPC, and lack of inventive step, Article 56 EPC) did not prejudice the maintenance of the patent in amended form.

II. Oral proceedings were held before the Board of Appeal on 21 March 2006.

III. The appellant requested that the decision under appeal be set aside and that the European patent No. 0 684 130 be revoked in its entirety.

The respondent (patent proprietor) requested as main request that the appeal be dismissed. As an auxiliary measure, he requested that the decision under appeal be set aside and that the patent be maintained on the basis of the following documents filed on 11 February 2005:

(a) claims 1 to 12 as first auxiliary request; or
(b) claims 1 to 5 as second auxiliary request.

The other parties I, II and III (opponents 01, 02 and 03) were not represented during the oral proceedings. Other party I had submitted in a letter dated 21 February 2006 that the subject-matter of claim 13 of the main request did not involve an inventive step.
This submission is interpreted by the Board that the other party I implicitly requested that the main request of the respondent should be refused. The other parties II and III did not file any request in the appeal proceedings.

IV. Independent claims 1, 6, 10, 12 and 13 of the claims as maintained by the Opposition Division (main request) read as follows:

"1. A method of producing a succession of self-adhesive labels (80) carried on a length of release material (58), the method including the steps of:
(a) digitally printing by electrophotographic imaging a succession of images on a single web (56);
(b) adhering the printed web (56) to a backing of release material (58) after the digital printing step (a); and
(c) die-cutting the adhered printed web (56) to form a succession of self-adhesive labels (80) on the backing of release material (58)."

"6. A method of producing a succession of self-adhesive labels (106) carried on a length of release material (108), the method including the steps of:-
(a) digitally printing by an electrophotographic imaging printing unit (166) a succession of images on a web (164);
(b) cutting the printed web (164) into a succession of printed sheets (162) by a cutting device (176), the cutting device (176) being fed with the web (164) by a web feed system (171) coupled together with the printing unit (166);"
(c) feeding the printed sheets (162) from the cutting device (176) to a folding unit (148) which successively folds the printed sheets (162) to form a succession of folded labels (122);
(d) feeding the succession of folded labels (122) to a label feed system (126) which applies the folded labels (122) to a second web (119) including a release material (108); and
(e) adhering the succession of labels (122) to the second web (119)."

"10. Apparatus for producing a succession of self-adhesive labels (80) on a length of release backing material (14; 58; 108), the apparatus comprising a digital printing unit (4; 54; 166) for printing by electrophotographic imaging a web (20; 56; 164) with a succession of images, a laminating device (70) for laminating and adhering the printed web (56) to a web of release material (58), and a die-cutting device (67; 78; 132) for die-cutting self-adhesive labels (16; 80; 106) from the web (20; 56; 164)."

"12. Apparatus for producing a succession of self-adhesive labels (106) on a length of release material (108), the apparatus comprising a digital printing unit (166) for printing by electrophotographic imaging a succession of images on a web (164), a cutting device (176) for cutting the web (164) into a succession of printed sheets (162), the cutting device (176) in use being fed with the web (164) by a web feed system (171) coupled together with the printing unit (166); a feeder for feeding the printed sheets (162) from the cutting device (176) to a folding unit (148), the folding unit (148) being arranged to fold the printed sheets (162)
successively to form a succession of folded labels (122), and a label applying device (116) for applying the labels to a web (119) including a release material (108), the labels (122) being adhered to the web (119) to form self-adhesive labels (106)."

"13. A succession of self-adhesive labels (48, 50) carried on a length of release material (14), successive labels (48, 50) having at least two alternating images digitally printed by electrophotographic imaging."

Claims 1 to 12 according to the first auxiliary request correspond to claims 1 to 12 according to the main request, i.e. claims 13 and 14 of the main request pertaining to a succession of self-adhesive labels have been omitted.

Claims 1 to 5 according to the second auxiliary request correspond to claims 6 to 9 and 12 according to the main request.

V. The following documents were inter alia referred to in the appeal proceedings:


D10 US-A 4,675,062

D12 GB-A 2 152 005

VI. With respect to claim 13 of the main request the appellant and the other party I argued in writing and
The term "alternating" in the expression "successive labels (48, 50) having at least two alternating images" in claim 13 of the main request meant "occurring, being arranged or happening one after another", so that said expression could no be distinguished from the expression "successive labels (48, 50) having variable images". The subject-matter of claim 13 of the main request was thus not novel with respect to document D9, since this document disclosed a succession of self-adhesive labels having variable images printed thereon by an electrophotographic imaging technique (see first column from the left, first paragraph, and the sole figure). If the feature "successive labels (48, 50) having at least two alternating images" was considered to be a distinguishing feature with respect to the disclosure of document D9, the subject-matter of claim 13 of the main request at least lacked an inventive step, because this feature merely concerned a presentation of information and did not itself further define a succession of self-adhesive labels. If the person skilled in the art was given the task to print a succession of self-adhesive labels with alternating images, he or she could print them with the apparatus known from document D9 without exercising inventive skills.

With respect to claims 1, 6, 10 and 12 of the main request and of the first auxiliary request the appellant argued in writing and at the oral proceedings essentially as follows:
(a) Document D12 was to be considered the closest prior art for claims 1 and 10. This document disclosed steps (a), (b) and (c) of method claim 1, with the exception that in document D12 printing was performed by a photographic printing technique and not by electrophotographic imaging as required in step (a), see e.g. page 3, lines 79 to 91, and Figure 1 of document D12. Since electrophotographic imaging was known per se from the prior art, for example from document D9, the person skilled in the art would, as an alternative to the photographic printing technique known from document D12, substitute this technique by electrophotographic imaging, without the exercise of inventive skills. Because many adhesives used in the self-adhesive label art were known to deteriorate under the heat and pressure applied during electrophotographic imaging, the person skilled in the art had an incentive to avoid printing images directly on a web laminated to release material. These arguments applied mutatis mutandis to the device defined in claim 10. Consequently, the subject-matter of claims 1 and 10 of the main request and of the first auxiliary request lacked an inventive step.

(b) The new elements in the embodiment of the invention claimed in claim 6 as compared to claim 1 were a cutting step and a folding step, and, likewise, the new elements in claim 12 as compared to claim 10 were a cutting device and a folding unit. These elements were already known from document D9 (see second column from the left, lines 30 to 34), namely a cross-cutter
("Querschneider") and a zigzag stacker
("Zickzackstapler"). The subject-matter of claims 6 and 12 thus also lacked an inventive step with respect to documents D12 and D9.

VII. The respondent argued in writing and at the oral proceedings essentially as follows:

Self-adhesive labels on webs have been printed for over 50 years, but before the invention there was absolutely no disclosure or suggestion in the prior art of printing alternating images as required by claim 13 of the main request. The objective technical problem with respect to the disclosure of document D9 was to provide a more versatile way of producing labels. The solution, viz. producing alternating images, went beyond the normal progress of technology. Claim 13 of the main request was thus novel and involved an inventive step.

Document D12 was not an appropriate starting point for the person skilled in the label making art. This document related to a method and apparatus for producing self-adhesive prints that were produced by a photographic printing technique on pre-sensitised medium (see page 1, lines 5 to 8, and lines 27 to 31, of document D12). The choice of this medium implied that the printed band had to be made in a separate step, which printed band then had to be processed in a further operation for making self-adhesive prints (two pass process). Hence only small runs of self-adhesive prints could be produced in this way. Commercially available label making machines could not be used for this purpose (see page 3, lines 64 to 72). If the person skilled in the label making art were to use an
electrophotographic imaging technique, he or she would print directly on the self-adhesive label stock material, i.e. in a single pass (see e.g. document D9, first column from the left, lines 1 to 9). The line of reasoning of the appellant to deny inventive step for claims 1 and 10 of the main request and of the first auxiliary request on the basis of documents D12 and D9 was based on hindsight and should be dismissed.

Claims 6 and 10 of the main request and of the first auxiliary request related to a method and apparatus for producing a succession of self-adhesive folded labels on a length of release material. There was no hint or suggestion in neither document D12 nor document D9 to produce folded labels. The subject-matter of these claims did therefore also involve an inventive step.

Reasons for the Decision

Main request

1. **Claim 13 - Objection of lack of novelty**

The appellant has submitted that the term "alternating" in the expression "successive labels (48, 50) having at least two alternating images" in claim 13 meant "occurring, being arranged or happening one after another", so that said expression could not be distinguished from the expression "successive labels (48, 50) having variable images". The subject-matter of claim 13 was thus not novel with respect to document D9.
The Board cannot accept this interpretation of the claim. The expression "alternating images" in the context of claim 13 means that on successive labels (at least) images A, B, A, B, ... are printed. In Figure 2 of the patent in suit self-adhesive labels carried on a length of release material 14 are shown. In alternation the images FRONT LABEL and BACK LABEL are printed on the release material 14. The labels 48 having FRONT LABEL printed thereon have in addition a serial number printed thereon. The expression "at least" in claim 13 ensures that the embodiment shown in Figure 2 falls under the ambit of the claim, because the complete image, FRONT LABEL + serial number, is different for each label 48, and cannot be said to be an image (singular!) alternate with another image (here: the image on each label 50, which is the same for all labels 50). The expression "at least" does not seem to pertain to the word "two", since the expression "alternating images" seems to imply that the number of images is two. Whether the term "alternating" should be interpreted as "recurring" as submitted by the respondent, so that the expression "at least two alternating images" encompassed sequences of three and more images (e.g. A, B, C, A, B, C, ...) does not need to be answered (see point 2. below).

Document D9 discloses an apparatus for producing a succession of self-adhesive labels having variable images printed thereon on a length of release material, whereby printing is performed by means of an electrophotographic imaging technique (see left column, first paragraph). In the judgement of the Board, document D9 thus discloses that different images can be printed along the length of the label stock material.
Alternating images printed along the length of a label stock material are disclosed neither in document D9 nor in any other document cited by the appellant or by the other parties.

The subject-matter of claim 13 of the main request is thus novel within the meaning of Article 54 EPC.

2. Claim 13 - Objection of lack of inventive step

The appellant has submitted that a succession of self-adhesive labels carried on a length of release material printed with alternating images could not be technically distinguished from self-adhesive labels printed with arbitrary images, since images were merely presentations of information.

This objection is understood by the Board as arguing that the feature "successive labels (48, 50) having at least two alternating images" was a non-technical feature that should not be taken into account when assessing inventive step.

In the opinion of the Board, the feature "successive labels (48, 50) having at least two alternating images", and claim 13 as a whole, have technical character, for example when using the product in a labelling operation as explained in paragraph [0019] of the patent in suit.

Document D9 discloses a computerized apparatus for printing by means of an electrophotographic imaging technique different images along the length of label stock material. The respondent has submitted that
document D9 did not disclose that this apparatus had an operating system that had the necessary architecture, e.g. a flip-flop operation, for producing alternating images on a length of the label stock material.

However, claim 13 is completely silent about the type of apparatus or the type of process that is to be used to produce the succession of self-adhesive labels. The subject-matter of claim 13 encompasses for example label stock material, whereby each kind of the alternate images is printed by different printers.

In the judgement of the Board, the person skilled in the art is not only aware that, by using electrophotographic imaging techniques, different images can be printed along the length of label stock material (see e.g. document D9), but he or she would readily realize that the variability of this technique opens the possibility to print any desired sequence of images, for example printing a series of images A followed by a series of images B, and so on, or printing repeated series of images X, Y, Z, ...

In the judgement of the Board, the subject-matter of claim 13 therefore does not go beyond the normal progress of technology, but follows plainly from the prior art and/or common general knowledge, and hence does not involve the exercise of inventive skill or ability beyond that to be expected of the person skilled in the art.

The subject-matter of independent claim 13 of the main request thus lacks an inventive step within the meaning of Article 56 EPC.
Consequently, the main request is not allowable.

First auxiliary request

3. **Claims 1 and 10 - Objection of lack of inventive step**

Claims 1 and 10 of the first auxiliary request relate to a method and an apparatus for producing a succession of self-adhesive labels on a length of release backing material, whereby a succession of images is digitally printed by electrophotographic imaging on a web, which web is then adhered to a backing of release material, and subsequently die-cutting the web without cutting the backing of release material, thus forming a succession of self-adhesive labels on the backing of release material.

The appellant relied in particular on a combination of documents D12 and D9 to support its allegation that the subject-matter of claims 1 and 10 of the first auxiliary request lacked an inventive step.

In the judgement of the Board, the reasoning of the appellant is based on an *ex post facto* analysis: if the person skilled in the art were to consider document D12, he or she would find no hint or suggestion to replace the photographic printing technique known from document D12 by electrophotographic imaging, since document D12 expressly teaches to print on a pre-sensitised medium. The use of a photographic printing technique on pre-sensitised medium has the disadvantage that the pre-sensitised medium has to be developed and processed to produce a band with photographic images in
dry roll form in a separate step, before said band is adhered to a backing of release material. As a consequence, this has the further disadvantage that the photographic images cannot be directly produced on a print medium adhered to a backing of release medium. If the person skilled in the art were to attempt to overcome the disadvantage of using a photographic printing technique on pre-sensitised medium and were to replace the photographic printing technique known from document D12 by electrophotographic imaging, and the pre-sensitised medium by a normal, non pre-sensitised medium, he or she would consider using appropriate label stock material which allows electrophotographic imaging. In the judgement of the Board, the person skilled in the art would, when using an electrophotographic imaging technique, print images directly on self-adhesive label stock, as taught, for example, by document D9.

Consequently, the Board comes to the conclusion that the subject-matter of claim 1 according to the first auxiliary request is not obvious to the person skilled in the art and therefore involves an inventive step within the meaning of Article 56 EPC.

The same applies to the subject-matter of claim 10, which concerns an apparatus for producing a succession of self-adhesive labels on a length of release backing material. The subject-matter of claims 2 to 5 and claim 11, which are appendant to claim 1 and claim 10, respectively, similarly involve an inventive step.
4. **Claims 6 and 12 - Objection of lack of inventive step**

Claims 6 and 12 of the first auxiliary request relate to a method and an apparatus for producing a succession of self-adhesive folded labels on a length of release backing material, whereby a succession of images is digitally printed by electrophotographic imaging on a web, which web is then cut into a succession of printed sheets, which sheets are successively folded to form a succession of folded labels, which succession of folded labels is adhered to the second web.

Neither document D12 nor document D9, nor any other document cited in the appeal proceedings, discloses such method or apparatus for producing a succession of self-adhesive folded labels on a length of release backing material.

In particular, documents D9 and D12 are silent about folded labels. Whilst document D9 mentions the use of a zig-zag stacking apparatus (see second column from the left, lines 30 to 34), there is no disclosure in document D9 that this apparatus is used, or can be used, to fold labels. In the Board's view, the zig-zag stacking apparatus referred to in document D9 offers an alternative for storing the quasi-endless web with printed labels, namely not in roll form as shown in the sole Figure of document D9, but in a zig-zag stack form.

Document D10 discloses a method and apparatus for producing a succession of self-adhesive folded labels on a length of release backing material, whereby a stack ("succession") of lithographically printed folded
labels is taken as starting material (see column 3, lines 27 to 61, and Figure 1), which is fed and adhered to a web including a release material (cf. the steps (d) and (e) of claim 6 of the first auxiliary request). In contrast to the claimed invention, document D10 does not disclose an inline process, whereby a succession of images is printed by electrophotographic printing on a web, which web is then cut into a succession of printed sheets, which sheets are then folded to form a succession of folded labels, which folded labels are subsequently adhered to a (second) web including a release material (document D10 is silent about the first three steps, cf. steps (a) to (c) of claim 6 of the first auxiliary request).

It follows that the subject-matter of claims 6 and 12 according to the first auxiliary request is not obvious to the person skilled in the art and therefore involves an inventive step within the meaning of Article 56 EPC.

The subject-matter of claims 7 to 9, which are appendant to the claim 6, similarly involve an inventive step.

5. Since the first auxiliary request of the respondent is allowable, there is no need to consider the second auxiliary request of the respondent.
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 with the order to maintain the patent on the basis of the following documents:

   (a) claims 1 to 12, filed as 1st auxiliary request on 11 February 2005;
   (b) description, pages 2 to 8, presented during oral proceedings;
   (c) drawings, Figures 1 to 7, as granted.

The Registrar:      The Chairman:

M. Dainese       W. Moser