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**Datasheet for the decision
of 18 October 2021**

Case Number: T 1646/16 - 3.2.05

Application Number: 07108717.5

Publication Number: 1867477

IPC: B41F9/00, B41F13/46, B41F15/08,
B41F9/02, B41F21/10, B41F23/04

Language of the proceedings: EN

Title of invention:

A printing press with an intaglio printing unit, a stencil printing unit and a drying device

Patent Proprietor:

Komori Corporation

Opponent:

KBA-NotaSys SA

Relevant legal provisions:

EPC R. 80
EPC Art. 123(2)
EPC 1973 Art. 56
RPBA 2020 Art. 13(1), 13(2)

Keyword:

Amendment occasioned by ground for opposition - (yes)
Admission of a late-filed objection under Article 123(2) EPC
after a change of representative (no)
Inventive step - (yes)

Decisions cited:

T 0345/90, T 0701/91, T 0097/94, T 0382/97, T 0222/08,
T 1904/16, T 0954/17



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Case Number: T 1646/16 - 3.2.05

D E C I S I O N
of Technical Board of Appeal 3.2.05
of 18 October 2021

Appellant:

(Opponent)

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Representative:

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Decision under appeal:

**Interlocutory decision of the Opposition
Division of the European Patent Office posted on
23 May 2016 concerning maintenance of the
European Patent No. 1867477 in amended form.**

Composition of the Board:

Chairman

P. Lanz

Members:

T. Vermeulen

T. Karamanli

Summary of Facts and Submissions

- I. The opponent lodged an appeal against the interlocutory decision of the opposition division finding that European patent No. 1 867 477 (hereinafter "the patent") as amended according to the main request filed during the oral proceedings before the opposition division met the requirements of the European Patent Convention.
- II. The opposition was filed against the patent as a whole on the basis of the grounds for opposition under Article 100(a) EPC together with Article 54(1) EPC (lack of novelty) and together with Article 56 EPC (lack of inventive step).
- III. Following documents were referred to during appeal proceedings:
- D1 EP 0 132 857 A1;
 - D2 US 5,042,378;
 - D4 JP 2004-34641 A;
 - D4a English abstract of document D4;
 - D4b English translation of document D4;
 - D9 EP 1 092 537 A2.
- IV. A summons to oral proceedings was issued on 6 October 2020.
- V. In a communication pursuant to Article 15(1) of the Rules of Procedure of the Boards of Appeal in the version of 2020 (RPBA 2020) issued on 28 May 2021, the parties were informed of the board's provisional opinion that the appeal was likely to be dismissed.

VI. With two letters dated 27 July 2021, the EPO was informed of a change of the representative of the appellant (opponent). By communications dated 2 August 2021, the previous and the new representative of the appellant were informed of the corresponding entries in the Register of European Patents. By communication dated 5 August 2021, the respondent (patent proprietor) was informed of the change of the appellant's representative.

VII. With a letter dated 20 August 2021 the appellant filed an objection pursuant to Article 123(2) EPC against claim 1 of the main request and of auxiliary request 1. They further argued that the subject-matter of claim 1 according to the main request lacked an inventive step in view of the combination of documents D4 and D9.

VIII. Oral proceedings before the board were held by videoconference on 18 October 2021.

IX. The appellant (opponent) requested that the decision under appeal be set aside and that the patent be revoked.

The respondent (patent proprietor) requested that the appeal be dismissed (main request) or, alternatively, that the decision under appeal be set aside and that the patent be maintained as amended on the basis of the claims of one of auxiliary requests 1 to 7 filed with the reply to the statement of grounds of appeal dated 25 January 2017.

X. Claim 1 of the main request, which corresponds to the main request underlying the impugned decision, has the following wording (for ease of reference, the feature

numbering used by the board is inserted in square brackets):

"[1.1] A sheet-fed printing press, comprising: [1.2] a first printing unit (12, 42) for printing one surface of a sheet (S) being transported; [1.3] a drying device (14, 43), provided downstream of the first printing unit (12, 42) in a sheet transport direction, for drying the one surface of the sheet (S) printed by the first printing unit (12, 42); [1.4] a second printing unit (15, 45), provided downstream of the drying device (14, 43) in the sheet transport direction, for performing printing on the sheet (S) dried by the drying device (14, 43); and [1.5] wherein the first printing unit (12, 42) is one of a stencil printing unit and an intaglio printing unit, and [1.6] the second printing unit (15, 45) is another of the stencil printing unit and the intaglio printing unit, characterized by: [1.7] a reversing device (13, 44), provided between the drying device (14, 43) and the second printing unit (15, 45), for switching between double-sided printing in which another surface of the sheet (S) on a side opposite to the one surface of the sheet (S) printed by the first printing unit (12, 42) is printed by the second printing unit (15, 45) without the sheet (S) reversed by the reversing device, and single-sided printing in which the sheet (S) printed on by the first printing unit (12, 42) is reversed, and the one surface of the reversed sheet (S) is printed by the second printing unit (15, 45)."

XI. The appellant's submissions may be summarised as follows:

Rule 80 EPC

The amendment "without the sheet (S) reversed by the reversing device" in feature 1.7 did not change the interpretation of claim 1. The opposition division's finding that it limited the claimed subject-matter and was therefore occasioned by a ground for opposition was incorrect.

Admittance of objection under Article 123(2) EPC

The objection under Article 123(2) EPC was filed in a timely manner after the appellant's change of representative. The ground for opposition pursuant to Article 100(c) EPC was already in the first-instance proceedings in view of the discussion held during the oral proceedings before the opposition division. The objection concerned the amendment "without the sheet (S) reversed by the reversing device" in feature 1.7 of claim 1. It was *prima facie* clear that paragraphs [0028], [0033] and [0046] of the A-publication referred to a reversal "in" and not "by" the reversing unit. The corresponding passages also referred to reversing and attraction cylinders, features that were left out of the present claim 1. The objection should therefore be admitted into the appeal proceedings.

Inventive step

- *Starting from document D4*

Document D4 concerned a printing press for flexible printing solutions. In paragraph [0002] of document D4b

banknotes and securities were merely mentioned as examples of the printing products. In the embodiment of Figure 10 of document D4 a printing press was disclosed with a set of modular printing units comprising in particular an intaglio printing module C coupled to a screen printing module D. The drying device 26, 27 shown in Figure 4 of document D4 would be positioned between the modules C and D. By printing the lower surface in module C and the upper surface in module D, double-sided printing was achieved. The two offset printing modules A placed upstream of the modules C and D did not affect this conclusion. The subject-matter of claim 1 differed from the embodiment of Figure 10 in that the printing press further comprised a reversing device. The objective technical problem was to increase the variability of the printing possibilities in function of the required printing product. According to paragraph [0003] of the translation D4b, the aim of document D4 was to provide a combination of different printing methods without requiring any major machine remodeling. The skilled person, a mechanical engineer with several years of working experience in the construction of printing machines, would have been familiar with reversing devices for printing presses. They would not have required an inventive step to insert such a reversing device in between the modules C and D of the embodiment of Figure 10, because in that position the reversing device would have increased the variability of the printing result. Module E, a gravure printing unit used in the context of a different embodiment, did not play any role in the embodiment of Figure 10. The inspection module F arranged downstream of the module D did not need to be adapted in order to inspect sheets that would have been reversed in between the modules C and D, seen that its cameras were

arranged to detect the images printed on both sides of the sheet.

Alternatively, the skilled person would have been prompted to look for a solution in document D9, the problem of which was formulated in paragraph [0005] as creating a reversing device for use at high operational speed. According to paragraph [0018] of document D9, the prior art reversing device served for single-sided and/or double-sided printing. It would have been obvious to integrate this reversing device in the printing press shown in Figure 10 of document D4, in particular between the module C and the module D, in which case the cylinders 17 and 33 shown in Figure 1 of document D9 corresponded to the cylinders 26 resp. 31 of document D4.

In a different approach, also the embodiment shown in Figure 12 of document D4 could be used as the starting point. It disclosed a printing press for double-sided printing of a paper sheet transported through a gravure printing module E and a screen printing module D. Apart from a reversing device, also a drying device was missing. But, in view of the modular construction of the printing press, it would have been obvious for the skilled person to add both a drying module and a reversing module in between the modules E and D.

- *Starting from document D1*

According to Figures 1a and 1b of document D1 a sheet-fed printing press was disclosed comprising a first Orloff printing unit 12 to 19, a drying device 23, 24, a reversing device C and a second intaglio printing unit D. The reversing device was adapted to switch between double-sided printing in which the upper

surface was printed by the Orloff printing unit and the lower surface was printed by the intaglio printing unit, and single-sided printing in which the sheet was reversed so that the intaglio printing unit printed on the same surface as the Orloff printing unit. The arrangement of a third printing unit 6 to 9, 12, 19 upstream of the reversing device did not change this conclusion. The subject-matter of claim 1 differed therefrom in that the first printing unit was a stencil printing unit. The objective technical problem was to provide a first printing unit that performed an alternative type of printing on the front face of each sheet. The selection of a specific type of printing unit from among a limited set of well-known alternatives, i.e. relief printing, lithography printing, gravure printing and stencil printing, did not have any inventive merit. In particular document D4 disclosed the use of an intaglio printing unit C applying an image to a first, lower surface in combination with a screen printing unit D applying an image to a second, upper surface of the same sheet. In view thereof, the skilled person would not have required an inventive step to replace the Orloff printing unit of document D1 with a screen printing unit according to document D4 and, in doing so, arrive at the subject-matter of claim 1.

- *Starting from document D2*

Another possible starting point was the printing press disclosed by document D2. The first printing unit 3, 5, 12 to 17 was adapted to print the upper surface of a sheet fed to the printing press. The sheet was then conveyed through a drying device 20, 21 and a reversing device 22, 23 to an intaglio printing unit 25 to 30. According to column 4, lines 34 to 48 the reversing

device was comparable to the one of the patent. It was adapted to switch between double-sided printing in which the upper surface was printed by the first printing unit and lower surface was printed by the intaglio printing unit and single-sided printing in which the sheet was reversed so that the intaglio printing unit printed on the same surface as the first printing unit. The arrangement of a third printing unit 3, 5 to 11 upstream of the reversing device did not change this conclusion. Therefore, the subject-matter of claim 1 differed from the printing press of document D2 in that the first printing unit was a stencil printing unit. Similarly as when starting from document D1, the objective technical problem was to provide a first printing unit that performed an alternative type of printing on the front face of each sheet. The arguments provided for the starting point D1 also applied here.

Hence, the subject-matter of claim 1 did not involve an inventive step.

XII. The respondent essentially argued as follows:

Admittance of objection under Article 123(2) EPC

After more than four years of silence, the appellant raised the objection under Article 123(2) EPC at the latest possible time before the oral proceedings, and this although the opposition division had already expressed their view on the matter. A change of representative did not justify such a late submission. If it did, then an opponent could still submit new documents or new objections after a change of representative even at a very late stage of the

proceedings and their admittance could thus be influenced accordingly.

Inventive step

- *Starting from document D4*

Document D4 essentially concerned a printing machine with a combination of modules which were selectable depending upon printing specifications. The prior art machine was capable of switching between double-sided printing and single-sided printing by changing the combination of the printing modules. A reversing device, however, was nowhere mentioned. Nor did document D4 disclose the technical idea of reversing a sheet during transportation. In fact, it intended to eliminate the need for a reversing device by providing the different modules. For this reason, the skilled person, faced with the objective technical problem of improving the operating efficiency of the printing machine, would have never come up with the idea of adding a reversing device to said combination of printing modules; they would have used a different printing module instead. A further aspect to be considered was the purpose the printing machine served according to paragraph [0002] of document D4b. For printing a complete series of banknotes, flexibility was generally not a requirement. The security features of banknotes were always printed on a predetermined surface, not alternately on opposite surfaces. Furthermore, introducing a reversing device would have required adapting the inspection module F, the cameras of which were configured to detect the specific printing on the surfaces they were assigned to.

- *Starting from document D1*

Contrary to what was alleged by the appellant, the printing machine of document D1 comprised a first printing unit A which simultaneously printed both surfaces of a paper sheet, the upper surface by Orloff printing and the lower surface by offset printing. When the reversing device C did not reverse the sheet, the surface printed by Orloff printing in the first printing unit A was also printed by intaglio printing in the second printing unit D. Conversely, when the device C performed a reversing operation, the surface printed by offset printing was also printed by intaglio printing. The appellant argued by merely referring to a partial configuration of the prior art printing machine, namely by selectively concentrating on the Orloff printing in the first printing unit A. But document D1 did not disclose or suggest that the first printing unit A functioned as a device capable of printing on only one surface.

- *Starting from document D2*

The printing machine of document D2 printed both surfaces of a sheet simultaneously by a first printing unit A. One of the surfaces was printed by offset printing on a blanket cylinder 3 and the other surface was printed by offset printing on a blanket cylinder 5. When sheet turning drums 22, 23 did not reverse the sheet, one of the offset-printed surfaces was printed by intaglio printing. By reversing the sheet, the other offset-printed surface was printed by the intaglio printing unit. The appellant argued by merely referring to a partial configuration of the prior art printing machine, namely by selectively concentrating on only

one of the offset printing modules in the first printing unit A. But document D1 did not disclose or suggest that the first printing unit A functioned as a device capable of offset printing on only one surface.

For those reasons, the subject-matter of claim 1 involved an inventive step.

Reasons for the Decision

1. Applicable law

The European patent application on which the opposed patent is based was filed on 23 May 2007. According to the decision of the Administrative Council of 28 June 2001 on the transitional provisions under Article 7 of the Act revising the EPC of 29 November 2000 (OJ EPO 2007, Special edition No. 4, 219), Articles 54, 56 and 100 EPC 1973 apply in the present case.

2. Compliance with Rule 80 EPC

2.1 Pursuant to Rule 80 EPC, "[w]ithout prejudice to Rule 138, the description, claims and drawings may be amended, provided that the amendments are occasioned by a ground for opposition under Article 100, even if that ground has not been invoked by the opponent". So an amendment further limiting the subject-matter of an independent claim complies with Rule 80 EPC in formal terms. Whether it actually overcomes any ground for opposition is a separate matter (see "Case Law of the Boards of Appeal of the European Patent Office", 9th edition, 2019, IV.C.5.1.1).

2.2 The appellant questioned whether the addition of the feature

"without the sheet (S) reversed by the reversing device"

(hereinafter referred to as 'feature S'), which was introduced in preparation for the oral proceedings before the opposition division in what is now feature 1.7 of claim 1 of the main request, was occasioned by a ground for opposition under Article 100 EPC.

2.3 In the board's view, feature S excludes the possibility that the sheet is reversed during double-sided printing. Reversing devices of conventional printing presses that perform double-sided printing on a sheet by reversing that sheet would, by reason of the amendment, be deprived of any overlap at all with feature 1.7. The amendment can therefore be regarded as a serious attempt to overcome either the ground for opposition of lack of novelty (Articles 100(a) and 54(1) EPC 1973) or that of lack of inventive step (Articles 100(a) and 56 EPC 1973).

2.4 Hence, the opposition division's assessment in point 5 of the reasons for the impugned decision was correct. The amendment made to claim 1 of the main request meets the requirements under Rule 80 EPC.

3. Admittance of the appellant's objection under Article 123(2) EPC

3.1 With letter dated 20 August 2021, hence after notification of the summons to oral proceedings (and after the notification of the board's communication

under Article 15(1) RPBA 2020), the appellant's new representative filed for the first time in the appeal proceedings an objection under Article 123(2) EPC against feature S of claim 1. The appellant did not dispute that the specific objection was not raised before, but referred to the discussion of the ground for opposition under Article 100(c) EPC, which took place at the oral proceedings held before the opposition division. According to points 2 and 8 to 15 of the minutes, however, the discussion concerned the subject-matter of dependent claim 11 of a request that was subsequently replaced by the main request underlying the impugned decision; it has no bearing on the present matter. As the objection under Article 123(2) EPC was not raised in the statement of grounds of appeal, it is an amendment to the appellant's appeal case and, since it was made after notification of the summons to oral proceedings, underlies the provision of Article 13(2) RPBA 2020, which applies here in accordance with Article 25(1) and (3) RPBA 2020. As a consequence, the objection is, in principle, only to be taken into account if there are exceptional circumstances, which have been justified with cogent reasons by the appellant.

- 3.2 The only reason advanced by the appellant for the late amendment to the appeal case was the recent change of representative. Under the present circumstances, the board does not consider this as a cogent reason justifying the belated submission (s. also T 1904/16, Reasons 16.4). In fact, in the absence of any indication to the contrary, it must be assumed that all the actions taken in the opposition proceedings and in the opposition appeal proceedings prior to the change of representative had been undertaken with agreement of the appellant and reflected the way in which the

appellant wished to conduct its case (s. T 222/08, Reasons 2.2). As soon as the appellant appointed the new representative, the proceedings were then continued from the stage they had reached when the new representative took over from their predecessor (s. T 97/94, Reasons 3.5.3). The board sees therefore no good reason why it should treat the question of whether exceptional circumstances within the meaning of Article 13(2) RPBA 2020 exist in a different way in the case of submissions filed by the current representative than in the case of submissions that could have been filed by his predecessor after notification of the summons to oral proceedings. This is all the more so since a mere change of representative, which is not so uncommon that it *de facto* qualifies as an exceptional circumstance, would otherwise give the appellant the opportunity to influence which of their procedural moves have to be considered as belated and which as timely (s. T 382/97, Reasons 5.5). In light of these considerations, the board does not see any exceptional circumstances.

- 3.3 The appellant also argued that the late-filed objection of added matter was *prima facie* very relevant for the outcome of the appeal proceedings.

Prima facie relevance is a criterion often used in the case law when deciding whether to admit an amendment to a party's appeal case under Article 13(1) RPBA 2020. At the third level of the convergent approach, the boards of appeal are free to use or not use the criteria set out in the context of Article 13(1) RPBA 2020 when deciding, in the exercise of their discretion in accordance with Article 13(2) RPBA 2020, whether to admit an amendment to a party's appeal case (s. T 954/17, Reasons 3.10, and Explanatory Notes on

Article 13(2) RPBA 2020 in document CA/3/19, section VI).

With respect to the arguments of *prima facie* relevance, the board has following observations. As was correctly pointed out by the respondent, the opposition division already expressed their view that feature S had a basis in the application as originally filed (s. point 4.2 of the reasons for the impugned decision). In fact, feature S can be found almost word by word in each of the embodiments described in the application as originally filed: on page 10, lines 8 and 9 ("*By this action, the sheet S is not reversed by the reversing unit 13 ...*"), on page 13, lines 3 and 4 ("*That is, the sheet S is not reversed by the reversing unit 13 ...*") and on page 17, lines 10 and 11 ("*That is, the sheet S is not reversed by the reversing unit 44 ...*"). The argument that the application as originally filed did not provide any basis for the amendment, but instead referred to a reversal "*in the reversing unit*" is therefore not convincing. Also the fact that the above cited passages describe the reversal in combination with a reversing cylinder and an attraction cylinder, which were not added to claim 1, does not persuade the board that feature S appears without basis. On the contrary, in much the same way as the feature "*in which the sheet (S) printed on by the first printing unit (12, 42) is reversed*" of original claim 1, feature S would appear to apply directly and unambiguously to the general reversing device regardless of any structural details of the reversing mechanism. Therefore, it cannot be said to be immediately apparent that the amendment violates Article 123(2) EPC.

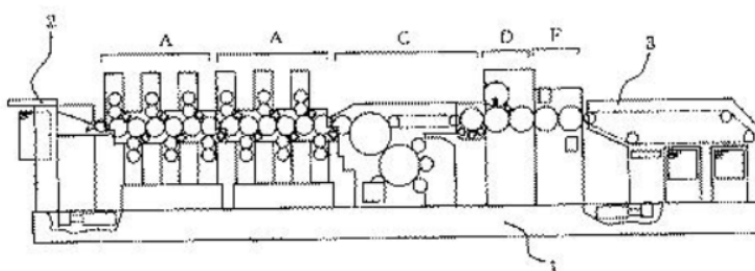
3.4 For those reasons, the board exercised its discretion under Article 13(2) RPBA 2020 and decided not to admit

the appellant's objection under Article 123(2) EPC raised by letter dated 20 August 2021 into the proceedings.

4. Inventive step

4.1 Starting from document D4 (Figure 10)

4.1.1 There was no dispute between the parties that the sheet-fed printing press illustrated in Figure 10 of document D4 (reproduced below) comprises features 1.1 to 1.6 of claim 1. As a matter of fact, paper sheets are conveyed from a feed device 2 through two offset printing modules A, an intaglio printing module C, a screen printing module D and an inspection module F, before being stacked on piles in an ejection device 3.



As follows more clearly from Figure 4 of document D4, the module C has a drying device 27 placed immediately downstream of the first (intaglio) printing unit depicted by reference signs 19-22. In the configuration of Figure 10 the second (screen) printing unit of module D therefore lies downstream of the drying device in the sheet transport direction.

4.1.2 A reversing device in accordance with feature 1.7 is, however, not foreseen by document D4. The technical effect of the distinguishing feature lies in the possibility to selectively perform printing by the first and the second printing units on one surface or

on opposite surfaces of the sheet. According to paragraphs [0027], [0045] and [0057] of the patent, this improves the operating efficiency of the printing press. The objective technical problem is thus to improve the operating efficiency of the printing press.

The board does not share the appellant's view that the objective technical problem should be reformulated in terms of increasing the variability of the printing possibilities in function of the required printing product. A particular reason that would justify such a reformulation, such as an additional technical effect or a suggestion to that effect in the patent, was not presented by the appellant, nor is it apparent to the board.

- 4.1.3 In a first line of argument, the appellant relies on the common general knowledge of the skilled person in support of their view that the claimed subject-matter was obvious.

The board does not refute that reversing devices for printing presses were known to the skilled person at the filing date of the patent. However, it cannot accept the appellant's view that it would have been obvious to install a reversing device in the printing press shown in Figure 10 of document D4. First, the emphasis in paragraph [0003] of the translation D4b on solutions "*without needing major machine remodeling of the existing machines and without using a new machine*" would have deterred the skilled person from adding a new device to the existing machine shown in Figure 10. But even if some machine remodeling were carried out, the board is not convinced that the skilled person would have been prompted to adopt the solution of feature 1.7. Rather than inserting a new device that

were to interfere with the orientation of the sheets transported in the printing press, the skilled person would have found an incentive in the modular layout of the prior art device to replace one of the existing printing modules C or D by a printing module that caused both intaglio and screen images to be applied on the same surface. This would indeed be more consistent with the practice of printing security features on banknotes, hinted at in paragraph [0002] of the translation D4b, which typically have different designs for front and back surfaces.

In any event, the board cannot agree with the appellant that the installation of a reversing device in the printing press known from Figure 10 of document D4 would not have required any further adaptation of the inspection module F. Given that the reversal of a sheet between the modules C and D would result in both the intaglio image and the screen image being printed on the upper surface, it is difficult to conceive how the inspection module could remain operative without substantial changes either to the cameras 43, 45 illustrated in Figure 7 of document D4 or to the processing unit mentioned in paragraph [0028] of the translation D4b.

- 4.1.4 In a second line of argument, the appellant combined the embodiment shown in Figure 10 of document D4 with the teachings of document D9. In the board's view, however, the fact that a specific prior art document teaches the use of a reversing device for single-sided and/or double-sided printing at high operational speed does not alter the conclusion that it would not have been obvious to add a reversing device to the printing press of the starting point in the first place.

4.1.5 In view of the foregoing, the board judges that the subject-matter of claim 1 according to the main request involves an inventive step starting from the embodiment shown in Figure 10 of document D4 (Article 56 EPC 1973).

4.2 Starting from document D4 (Figure 12)

4.2.1 The appellant also argued lack of inventive step starting from the embodiment shown in Figure 12 of document D4, in which a gravure printing module E and a screen printing module D are placed in line between two offset printing modules A and B and an inspection module F. As in the embodiment shown in Figure 10, a reversing device is not disclosed (feature 1.7). Furthermore, unlike the starting point discussed above, no drying device is arranged downstream of the first printing unit E and upstream of the second printing unit D (features 1.3 and 1.7).

4.2.2 For the same reasons as set out above, the arguments that the skilled person would have combined the printing press configuration of the starting point either with their common general knowledge or with the teaching of document D9 and foresee a reversing device between the first and second printing units are not persuasive.

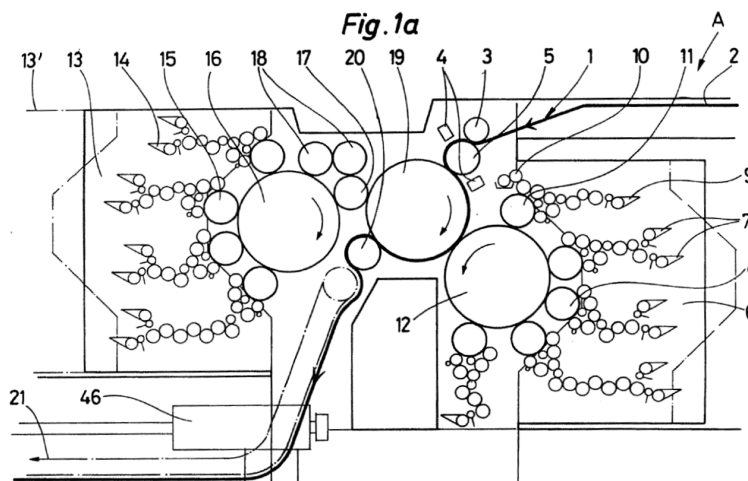
4.2.3 The board therefore holds the view that the subject-matter of claim 1 also involves an inventive step when starting from the embodiment shown in Figure 12 of document D4 (Article 56 EPC 1973).

4.3 Starting from document D1

- 4.3.1 In a further inventive step attack, the appellant started from document D1, which the parties agreed does not disclose the stencil printing unit of feature 1.5. The key issue in dispute was whether feature 1.7 can be read on the printing press disclosed by document D1.

Clearly, the reversing device C of document D1 is very similar to the one disclosed by the patent. The paragraph spanning from page 11, line 32 to page 12, line 30 of document D1 explains that the manipulation of the grippers arranged on the cylinders 26 and 26a of the module C may either convey the sheet so that the intaglio image of the second printing unit D is printed on the lower surface, or reverse the sheet so that the intaglio image can be printed on what originally was the upper surface. Whether the operative constraints set by feature 1.7 are met therefore solely depends on what happens upstream of the prior art reversing device.

A closer look at the structure of the printing press illustrated in Figure 1a of document D1 (reproduced below) reveals that the elements 12 to 19 referred to by the appellant as the first printing unit are in fact only part of what actually constitutes the printing *unit*. Due to the dual role each of the cylinders 12 and



19 has as a printing cylinder and as an impression cylinder for the other printing cylinder (s. page 9, lines 12 to 14: "cylindres contre-pression"), a sheet 1 conveyed between the cylinders 12, 19 *simultaneously* receives an offset printing image on its lower surface and an Orloff printing image on its upper surface (s. page 5, lines 24 to 30).

In the board's view, the respondent has therefore presented a convincing case that the entire printing device A embracing both the Orloff printing elements 13 to 19 and the offset printing elements 6 to 12 is to be regarded as the first printing unit in the sense of claim 1. Document D1 leaves no doubt that this first printing unit is only disclosed as a device printing both surfaces of a sheet at the same time (s. for example the summary from page 17, line 28 to page 18, line 33). As a consequence, the reversing device C is not adapted to switch between double-sided printing "*and single-sided printing in which the sheet (S) printed on by the first printing unit (12, 42) is reversed, and the one surface of the reversed sheet (S) is printed by the second printing unit (15, 45)*".

4.3.2 The opposition division was therefore correct in its finding that the subject-matter of claim 1 differs from

the printing press of document D1 by features 1.5 and 1.7.

- 4.3.3 The technical effect of feature 1.5 consists in providing an alternative printing unit. Feature 1.7, on the other hand, improves the operating efficiency of the printing press (s. paragraphs [0027], [0045], [0057] of the patent; s. also point 4.1.2 above). The type of printing unit used and the arrangement of the reversing device do not seem to complement each other in a way that would lead to a combinative effect beyond the sum of their individual effects. The board can therefore not identify any functional link between the two distinguishing features; nor was this suggested by the parties.

As a consequence, there are two separate technical problems which are solved by distinct features: to provide an alternative printing group and to improve the operating efficiency of the printing press. The possible inventive merits of features 1.5 and 1.7 can therefore be assessed independently from each other, so that, for the subject-matter of the claim to be considered inventive, it suffices to show that just one of the differences is not obvious (s. T 345/90, Reasons 5, and T 701/91, Reasons 6.4 and 6.5).

- 4.3.4 The appellant argued that the replacement of the Orloff printing unit of document D1 by a stencil printing unit would not have any inventive merit. In this context, document D4 was referred to, which disclosed the combination of an intaglio printing unit and a screen printing unit. Even if this were so, document D4 does not disclose any reversing device. The board is unable to see what would have motivated the person skilled in the art to modify the printing press of document D1 in

such a way that the reversing device C were configured to switch to single-sided printing by reversing the sheet printed on by the first printing unit. The appellant did not present any arguments in this respect, so that the board can only conclude that at least the second difference (feature 1.7) is not obvious.

4.3.5 In view thereof, the subject-matter of claim 1 according to the main request involves an inventive step when starting from document D1 (Article 56 EPC 1973).

4.4 Starting from document D2

4.4.1 The printing press of document D2 is similar to that of document D1 in that it comprises a first offset printing unit A with cooperating upper and lower blanket cylinders 3, 5 (s. Figure 1 and column 3, lines 15 to 21) and a second intaglio printing unit C. According to column 4, lines 34 to 53 of document D2, sheet reversing is carried out as in document "EP-B-0,136,972", which is a patent family member of document D1. When the grippers of the drums 22, 23 of the reversing device B do not reverse the sheet, the image printed by the upper blanket cylinder 3 of the first printing unit A will lie on the upper surface opposite the image printed by the second printing unit C on the lower surface. Upon reversing the sheet between the printing units A and C, both images will come to lie on the lower surface. The upper surface of the end product, however, will carry the image printed by the lower blanket cylinder 5 of the first printing unit A. The board thus concurs with the respondent that sheets passing through the printing press of document

D2 are printed on both sides; no sheet surface remains blank.

4.4.2 Similar to the inventive step objection starting from document D1, the subject-matter of claim 1 thus differs from the printing press of document D2 by features 1.5 and 1.7.

4.4.3 The objection starting from document D2 gives way to two separate technical problems which are solved by distinct features: to provide an alternative printing group and to improve the operating efficiency of the printing press (s. point 4.3.3 above).

4.4.4 The appellant did not provide any arguments in respect of the obviousness of the second distinguishing feature (feature 1.7). As the board is unable to see which motivation the skilled person would have had to modify the printing press of document D2 in such a way that the reversing device B were configured to switch to single-sided printing by reversing the sheet printed on by the first printing unit A, it must conclude that at least feature 1.7 is not obvious.

4.4.5 Hence, the subject-matter of claim 1 according to the main request also involves an inventive step when starting from document D2 (Article 56 EPC 1973).

4.5 Conclusion on inventive step

The appellant has not convinced the board that the subject-matter of claim 1 is obvious to a person skilled in the art. The requirements of Article 56 EPC 1973 are therefore met.

5. Conclusion

In view of the above, the appellant failed to convince the board that the European patent as amended according to the main request, which corresponds to the main request underlying the impugned decision, does not meet the requirements of the EPC. The appeal must therefore be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



N. Schneider

P. Lanz

Decision electronically authenticated