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D E C I S I O N
of 19 October 2004

Case Number: T 0367/03 - 3.2.5

Application Number: 95912841.4

Publication Number: 0751875

IPC: B41M 1/14

Language of the proceedings: EN

Title of invention:
Multi-color printing press

Patentee:
Heath Custom Press, Inc.

Opponent:
Dainippon Screen Mfg. Co., Ltd.

Headword:
-

Relevant legal provisions:
EPC Art. 56

Keyword:
"Inventive step (no)"

Decisions cited:
-

Catchword:
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Case Number: T 0367/03 - 3.2.5

D E C I S I O N
of the Technical Board of Appeal 3.2.5
of 19 October 2004

Appellant: (Opponent)
Dainippon Screen Mfg. Co., Ltd
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Decision under appeal: **Interlocutory decision of the Opposition Division of the European Patent Office posted 28 January 2003 concerning maintenance of European patent No. 0751875 in amended form.**

Composition of the Board:

Chairman: W. Moser
Members: W. R. Zellhuber
P. E. Michel

Summary of Facts and Submissions

I. The appellant (opponent) lodged an appeal against the interlocutory decision of the Opposition Division maintaining the European patent No. 0 751 875 in amended form.

II. The Opposition Division held that the ground for opposition submitted by the appellant under Article 100(a) EPC (lack of inventive step, Article 56 EPC) did not prejudice the maintenance of the patent in suit in amended form. The amended form of the patent in suit includes claim 1 of the patent in suit as granted and an amended independent claim 4.

III. Oral proceedings were held before the Board of Appeal on 19 October 2004.

IV. The appellant requested that the decision under appeal be set aside in its entirety and that the patent in suit be revoked.

The respondent (patent proprietor) requested that the appeal be dismissed.

V. Claim 1 of the patent in suit as granted reads as follows:

"1. A multi-colour printing press, comprising:

a rotary impression cylinder (6) having a plurality of circumferential segments, each said segment being provided with gripping means to grip a single sheet for printing,

a plurality of rotary blanket cylinders (3, 4) mounted and arranged about the periphery of said impression cylinder for movement off and on printing contact with said impression cylinder,

said blanket cylinders being equal in diameter and having an equal number of circumferential blanket segments of the same length as the impression cylinder segments and arranged to successively register therewith during rotation of said cylinders,

the number of segments on said impression cylinder being equal to the number of segments on each blanket cylinder multiplied by a whole number, plus one additional segment, and said gripping means holding a sheet to be printed on each segment of said impression cylinder for a number of revolutions equal to the number of segments on one of said blanket cylinders,

a plurality of segmented rotary plate cylinders (1, 2) mounted and arranged for movement off and on contact with respective ones of said blanket cylinders,

said plate cylinders being of equal diameter as the associated blanket cylinder and having the same number of segments thereof arranged to successively register therewith during rotation,

means for applying a different colour printing medium to each segment (12, 13, 14, 16) of said plate cylinders,

sheet feeding means (9, 9) for feeding sheets to be printed to the gripping means of successive segments of said impression cylinder during rotation, and

delivery means (11) operatively associated with said gripping means for removing printed sheets from successive segments of said impression cylinder during rotation following the printing of all segments of said blanket cylinders,

whereby multiple colours may be successively printed on each sheet with a single gripping on said impression cylinder."

VI. The following documents are referred to in the present decision:

D1: JP-A 3-143634,

D1b: Verified English translation of a part of document D1 submitted on 4 December 2002 comprising pages 1 to 8;

D7: "The Lithographers Manual" edited by Charles Shapiro, The Graphics Arts Technical Foundation, Inc, Pittsburgh, Pennsylvania 15213, 1966, pages 12:17 and 12:18;

D11: US-A 2,663,254;

D16: N. Nakamura, "Insatsu Kikai", published 1975, cover sheet, and pages 20 and 122 to 125, and

D16a: English translation of pages 123 and 124 of document D16.

VII. In the written procedure and during oral proceedings, the appellant argued essentially as follows.

The subject-matter of claim 1 of the patent in suit as granted was obvious with regard to a combination of the teachings of documents D1/D1b and D16/D16a, taking into account the common general knowledge of a skilled person.

Starting from an offset printing machine as shown, in particular, in Figure 5 of document D1, the object was to provide a multi-colour printing press enabled to apply more than two colours on one side of a single sheet.

Document D16, cf. page 123, Figure 162, disclosed a four-colour printing press comprising two printing cylinders each carrying two printing segments in cooperation with a single impression cylinder including three segments.

The skilled person thus had a suggestion to adopt the teaching of document D16 which gave him guidance to use a plurality of segmented plate cylinders and naturally also a plurality of blanket cylinders, if required by the printing process.

VIII. In the written procedure and during oral proceedings, the respondent argued essentially as follows:

Document D1/D1b remained the basic prior art reference. It referred to the problem of saving space which was a problem also addressed in the patent in suit. The printing press shown in Figure 1, which represented the closest prior art, comprised a single plate cylinder, a single blanket cylinder and a single impression cylinder. The plate and blanket cylinder comprised two printing segments for printing two colours. In order to increase the number of colours to be printed, document D1b, cf. page 7, lines 24 to 30, suggested increasing the number of printing segments on the plate cylinder and the blanket cylinder. Document D1/D1b thus pointed away from the present invention.

The printing press shown in Figure 5 of document D1 comprised a bigger impression cylinder thus allowing to print three sheets in two colours in two rotations of the impression cylinder. It did not represent the closest prior art.

Document D16 was a rather obscure piece of prior art. It had not been reprinted since 1975. Although it referred to a Swedish printer, there was no disclosure that there was a sufficiently broad publication to constitute common general knowledge. Document D16, which had not been known to people actually working in the technical field of printing machines, should not be taken into consideration when assessing inventive step.

Nevertheless, contrary to the present invention, the printing press according to document D16 comprised neither blanket cylinders nor sheet feeding means. As could be seen from Figure 162 on page 123 of document D16, providing sheet feeding and sheet discharging means in such a machine would create space problems. Moreover, document D16 did not go beyond the disclosure of document D11, which had belonged to the prior art taken into consideration by the Examining Division and by the Opposition Division. The fact that document D11 had been published in 1954, that a patent had been granted, and that inventive step had been confirmed by the Opposition Division were strong indications of non-obviousness of the subject-matter of claim 1 of the patent in suit.

A decision regarding obviousness was inevitably subjective to some extent and it was not legitimate to make an academic ex post facto analysis of how a skilled person could conceivably have modified the prior art.

Reasons for the Decision

1. *Preliminary remarks*

According to Article 54(2) EPC, "the state of the art shall be held to comprise everything made available to the public by means of a written or oral description, by use, or in any other way, before the date of filing of the European patent application." The EPC does not provide for the possibility of differentiating, on the basis of the circumstances in which and the location at

which prior art was made available to the public, whether or not the prior art should be considered when assessing novelty or inventive step.

Consequently, since document D16 was made available to the public before the priority date of the patent in suit, it represents prior art within the meaning of Article 54(2) EPC, and it has therefore to be fully taken into consideration when assessing novelty **and** inventive step.

2. *Inventive step*

2.1 The embodiment of an offset printing press as shown in Figure 5 of document D1 is considered to represent the closest prior art. It shows a two-colour printing press for printing three sheets in two colours in two rotations of the impression cylinder, wherein the latter includes three surface segments each provided for carrying a respective sheet. The press comprises a blanket cylinder provided with two surface segments and an associated plate cylinder of the same diameter for applying the images to be printed in the two colours, see also page 7, lines 14 to 20 of document D1b.

2.2 The object of the patent in suit is to provide a multi-colour printing machine thereby taking into account the problems encountered with conventional multicolour printing machines. The problems referred to in the patent in suit in paragraphs [0002], [0003] and [0004] are the increase in size and complexity of the printing press accompanying an increase of the number of colours to be printed, and, when multiple impression cylinders are utilized or when it otherwise becomes necessary to

transfer a sheet to be printed from one gripping mechanism to another, the ability to obtain exact registry becomes increasingly difficult with each gripping action.

2.3 These problems are solved according to claim 1 of the patent in suit as granted, in particular, in that a plurality of blanket and plate cylinder combinations are mounted and arranged around the periphery of a single impression cylinder. The number of segments provided on the impression cylinder for gripping a respective sheet is equal to the number of segments on each blanket cylinder and each plate cylinder multiplied by a whole number, plus one additional segment. The gripping means hold a sheet to be printed on each segment of the impression cylinder for a number of revolutions equal to the number of segments on the blanket cylinders, whereby multiple colours may be successively printed on each sheet with a single gripping on the impression cylinder.

2.4 Document D16, cf. Figure 162 and the corresponding description in document D16a, disclose a four-colour printing press, wherein two printing cylinders each having two printing segments are in cooperation with a single impression cylinder comprising three carrier segments. The concept of printing four colours with two printing cylinders mounted around the periphery of a single impression cylinder, wherein the number of carrying segments on the latter corresponds to the number of printing segments on the printing cylinders plus one, was thus known at the priority date of the patent in suit.

In the Board's judgement, starting from an offset printing press as shown in Figure 5 of document D1 and having the object of providing a multi-colour printing press, a person skilled in the art would take into consideration applying the concept disclosed in document D16. Accordingly, it was obvious to provide a further combination of a segmented blanket and a segmented plate cylinder around the periphery of the impression cylinder in an offset printing press as shown in Figure 5 of document D1, thus allowing printing of a third and a fourth colour.

As document D16/D16a, cf. document D16a, page 2, lines 4 to 11, suggests using a single impression cylinder in combination with a single gripping action of each sheet, it was readily apparent that by applying that concept for printing four colours, the problem of a significant increase of the size of the printing press, and the problem of obtaining exact registry are avoided.

2.5 The remaining features of claim 1 of the patent in suit as granted concern measures which fall within the customary practice of a person skilled in the art. In particular, in an offset printing press, it is common practice to provide means for moving the blanket cylinder in and off contact with the impression cylinder as well as with the associated plate cylinder, cf. document D7, page 12:17, right column, to page 12:18, left column, line 2.

It is further common practice to provide sheet feeding and sheet discharging means in a multi-colour printing press. In the Board's judgement, a skilled person would

not consider feeding and discharging the sheets in such a printing press manually.

2.6 Admittedly, in order to provide a printing press for three-colour (or more) printing, document D1b suggests increasing the number of printing sections on the blanket and printing cylinders and, correspondingly, the number of revolutions of the impression cylinder. However, that suggestion was made with regard to a printing press as shown in Figure 1 of document D1, wherein the impression cylinder carries a single sheet, cf. page 7, lines 24 to 30 of document D1b.

There is no indication of any prejudice against the mounting of more than one double segmented blanket cylinder around the periphery of a larger impression cylinder. Document D16 shows that there is enough space for two cylinders (here: segmented printing cylinders) and for sheet feeding and sheet discharging means. The printing press according to document D16/D16a is designed for printing 5000 sheets per hour, cf. page 2, last paragraph of document D16a, which inevitably requires sheet feeding and discharging means even though such means are not shown in Figure 162 of document D16.

Furthermore, document D1 was published on 19 June 1991, and the priority date of the patent in suit was 15 March 1994. In the Board's judgement, a period of less than three years between the publication date of the closest prior and the priority date of the patent in suit cannot be viewed as an indication of the presence of inventive step, see also Case Law of the

Boards of Appeal of the European Patent Office, 4th edition 2001, I.D.7.3, pages 135 and 136.

3. Consequently, the subject-matter of claim 1 of the patent in suit does not involve an inventive step within the meaning 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: The Chairman:

M. Dainese W. Moser