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**Datasheet for the decision
of 12 July 2021**

Case Number: T 2350/18 - 3.2.05

Application Number: 04752747.8

Publication Number: 1624840

IPC: B41J3/407, A61F13/15, B41J3/54

Language of the proceedings: EN

Title of invention:
Method of inkjet printing in high efficiency production of
hygienic articles

Patent Proprietor:
The Procter & Gamble Company

Opponent:
Johnson & Johnson Consumer Inc.

Relevant legal provisions:
EPC Art. 56, 83, 84, 123(2)
RPBA Art. 12(4)
RPBA 2020 Art. 25(2)

Keyword:

Clarity (yes)

Sufficiency of disclosure (yes)

Added subject-matter (no)

Admittance of document (no)

Inventive step (yes)

Decisions cited:

G 0003/89, G 0011/91, G 0007/93, G 0002/10, G 0003/14



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Case Number: T 2350/18 - 3.2.05

D E C I S I O N
of Technical Board of Appeal 3.2.05
of 12 July 2021

Appellant: Johnson & Johnson Consumer Inc.
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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
13 July 2018 concerning maintenance of the
European Patent No. 1624840 in amended form.**

Composition of the Board:

Chairman P. Lanz
Members: B. Spitzer
A. Bacchin

Summary of Facts and Submissions

- I. The opponent lodged an appeal against the opposition division's interlocutory decision that European patent No. 1 624 840 ("the patent") as amended according to the third auxiliary request filed on 29 March 2018 met the requirements of the EPC.
- II. During the opposition proceedings, the opponent had raised the grounds for opposition in accordance with Article 100(a) EPC in conjunction with Article 56 EPC (lack of inventive step) as well as Article 100(b) and (c) EPC.
- III. With its reply to the statement of grounds of appeal, the respondent (patent proprietor) filed five auxiliary requests.
- IV. In its letter dated 31 October 2019, the appellant (opponent) provided further arguments with respect to the main request and the auxiliary requests. As regards the second auxiliary request, objections of lack of clarity, added subject-matter, insufficiency of disclosure and lack of inventive step were raised.
- V. A summons to oral proceedings was issued on 26 October 2020.
- VI. In a communication pursuant to Article 15(1) RPBA 2020 issued on 6 May 2021, the board expressed its preliminary opinion on the case.
- VII. By letter dated 9 June 2021, the appellant withdrew its request for oral proceedings and announced its non-attendance at the oral proceedings.

VIII. By letter dated 10 June 2021, the respondent provided further submissions with respect to the second and fourth auxiliary requests.

IX. Oral proceedings before the board of appeal were held by videoconference on 12 July 2021 in the absence of the appellant. During the oral proceedings, the respondent withdrew its main request and the first auxiliary request.

X. *Requests*

The appellant requested in writing that the decision under appeal be set aside and that the patent be revoked.

The respondent requested that the decision under appeal be set aside and that the patent be maintained in amended form on the basis of the set of claims of any of the second to the fifth auxiliary requests filed with the reply to the statement of grounds of appeal.

XI. The documents cited during the appeal proceedings include the following:

- | | |
|----|---|
| D1 | US 4,841,307 |
| D2 | US 4,909,879 |
| E1 | Wikipedia entry "Converters (industry)" |
| E2 | Declaration by Mr José Francisco Cau,
Engineering Associate Director at
Johnson and Johnson |

XII. Claim 1 according to the second auxiliary request has the following wording:

"1. A method of inkjet printing in a high efficiency production of hygienic articles (10), having a print image (40), on a converting line including at least two inkjet print heads, the method characterized by the steps of:

(a) providing a substrate (102) moving in a web direction at a first velocity;

(b) printing on the substrate a first plurality of images by a first inkjet print head (112) disposed in proximity to the substrate, the images being separated from each other in the web direction at a pitch interval;

(c) switching automatically from the first inkjet print head to a second inkjet print head (114) while the substrate continues its movement, when the first inkjet print head becomes faulted; and

(d) printing on the substrate a second plurality of images by a second inkjet print head disposed in proximity to the substrate, the images being separated from each other at the pitch interval,

wherein the first plurality of images is separated from the second plurality of images by an unprinted region in the web direction, wherein the unprinted region is no greater than 50 times the pitch interval."

XIII. The appellant essentially argued as follows.

Second auxiliary request, lack of clarity (Article 84 EPC) and insufficiency of disclosure (Article 83 EPC)

The amendments of claim 1 were not based on any granted claim and, thus, had to comply with Article 84 EPC.

The term "automatically" was not clearly defined in the claim or the description. It was not clear whether the term "automatically" referred to an automated process without user involvement or to a user's decision-making process which required conscious thought. Reference was made to the passage in the application as filed corresponding to paragraph [0061] of the patent.

Even if "automatically" was interpreted as requiring an automated process, it was still unclear whether the claim required automated detection of a fault and consequent automated switching of the print heads. If the faulted condition was triggered by a user observing minor errors, claim 1 did not require automated detection of a fault but merely automated switching.

A further clarity objection referred to the term "become faulted". It was not clear when the print head developed a fault, how it was detected and what degree of fault was required to trigger fault detection.

If amended claim 1 required automated detection of a fault without user intervention, the invention was not sufficiently disclosed (Article 83 EPC).

Second auxiliary request, added subject-matter (Article 123(2) EPC)

None of the passages cited by the respondent provided a basis for "*when the first inkjet print head becomes faulted*". This amendment to claim 1 consequently violated Article 123(2) EPC. The only basis for the step of "*becomes faulted*" was on page 14, the first and second full paragraphs of the application as filed. "*When the first print head 112, becomes faulted,*" was presented as the first step of a specific sequence which led to the second print head switching to the run mode. None of these steps was described as optional but constituted essential features for arriving at the switching of the second print head. The third paragraph referred to these two paragraphs and did not provide a basis for removing any of the steps. The passage on this page together with Figures 9 and 10 described one specific process. The first and second paragraphs of page 13 of the application as filed also referred to the embodiment shown in Figure 10. The respondent did not provide any basis for the isolation of the feature "*when the first inkjet print head becomes faulted*". Rather, the passages cited by the respondent emphasised the essential nature of the steps of the first print head being switched from the run mode to the fault mode and the stopping of the first print head sending the OK signal to the converter controller. The disclosure on page 13 did not even refer to the "*becoming faulted*" step of the print head. Neither did the second paragraph on page 10 of the application as filed provide a basis for automatic switching "*when the first inkjet print head becomes faulted*". It merely disclosed that the second print head provided a desired backup by automatically switching from a standby mode to a

production mode.

Admittance of document E2

Document E2 was filed two months prior to the oral proceedings before the opposition division. Together with the statement setting out the grounds of appeal, the appellant re-submitted document E2 to support its view that the skilled person had an inherent motivation to avoid wastage during manufacture of absorbent articles, in particular wastage due to substantial gaps between printed images. Accordingly, document E2 was *prima facie* relevant for the issue of inventive step, and the opposition division was wrong not to admit it into the proceedings.

*Second auxiliary request, lack of inventive step
(Article 56 EPC)*

The subject-matter of claim 1 lacked an inventive step over document D2 alone or in combination with document D1.

Starting from document D2 as the closest prior art and as identified in the decision under appeal (see decision under appeal, Reasons, 5.3.1), the distinguishing features were:

A) the first and second inkjet print heads are used to print images on the substrate separated from each other at the same pitch interval

B) the first plurality of images is separated from the second plurality of images by an unprinted region in the web direction which is no greater than 50 times the pitch interval

The appellant contested that printing at a pitch interval (feature D) was a further difference as document D2 (see document D2, column 4, lines 10 to 14) explicitly taught to print an image on each diaper. This would be naturally achieved by printing the images at a fixed pitch interval.

Feature A) was inherently disclosed by document D2 (see document D2, column 4, lines 40 to 44). Since the diaper fabrication process was continued throughout the switch, the skilled person would have understood the second print head of document D2 to be printing images with the same pitch interval as the first print head since document D2 disclosed that "*each individual diaper carries an image printed thereon*" (see document D2, column 4, lines 10 to 14), which was not limited to printing with the first print head. It was at least an obvious implementation of the teaching of document D2.

Feature B) did not contribute to inventive step either. Typical inkjet print heads on an absorbent articles production line were programmable (see paragraph 3 of document E2 and column 3, lines 26 to 35 of document D2). It followed that they might be controlled by the processor to print any desired image at any desired position on the substrate. Consequently, the switch from the first print head to the second print head could be performed with any desired length of unprinted region between the images printed by the first and second print heads. A claim could not be deemed inventive simply because it comprised a feature which had not been explicitly disclosed in the prior art. Rather, the problem-solution approach had to be applied. The effect of distinguishing feature B) was simply a quantification of the production efficiency. Thus, the objective technical problem was to improve

the efficiency of the printing and switching process. The solution was obvious because the person skilled in the art would inevitably have chosen a length of unprinted region as short as possible and certainly "*no greater than 50 times the pitch interval*" as required by claim 1. It was routine to avoid wastage of materials in the manufacture of absorbent articles (see document E2, paragraph 4). The range end point of 50 times the pitch interval was arbitrary. In light of the above, the subject-matter of claim 1 did not involve an inventive step over the disclosure of document D2 alone.

It also lacked an inventive step over the disclosure of document D2 in combination with the disclosure of document D1. The objective technical problem of increasing production efficiency, i.e. reducing down time or production outages, was not limited to any specific field of production. Hence, the skilled person would have taken into account the teachings of document D1, which related to fluid jet printing serially on a substrate (see document D1, column 1, lines 6 to 9). Document D1 explicitly mentioned this problem (see document D1, column 3, lines 31 to 35). It disclosed in column 1, lines 29 to 34 that "*it has been found desirable to provide two or more printing stations arranged in series to enable printing operations to be shifted from one printhead to another without stopping the continuous movement of the substrate, e.g., fabric, through the printing stations, to enable servicing of the non-used printhead*". To enable the servicing of the first print head, the skilled person would have switched from the first inkjet print head to the second inkjet print head while the substrate continued its movement. By printing a second plurality of images on the substrate using the second inkjet print head,

production of the diapers could continue. Since the second print head was directly replacing the first print head's operations (e.g. while the first print head was being serviced, see document D1, column 1, lines 29 to 35), the images printed by the second print head would be the same as those printed by the first print head and be separated by the same pitch interval. From document D1, column 6, lines 1 to 6, which stated that "*either one or both of the printing stations ST1 and ST2 may print, depending upon whether it is desired to effect printing with one or two fluids or service one or the other of the printing apparatus at the printing stations*", it was clear that the two print heads were capable of printing in a co-ordinated fashion at the same time on the same length of substrate. Thus, the distance between the end of the first image and the start of the second image could be any desired length, including less than 50 times the pitch interval of the images.

Moreover, the additional feature "switching automatically from the first inkjet print head to a second inkjet print head while the substrate continues its movement, when the first inkjet print head becomes faulted" (feature C) was implicitly known from document D1 because a user would not have manually controlled the deflection of each droplet of ink from the print head. This was supported by document D2, which explicitly disclosed that inkjet print heads are controlled by a microprocessor (see document D2, column 3, lines 26 to 35). It was also inherent in the disclosure of document D1 that the automated control of the two print heads in series also provided automated co-ordination between the two print heads (see document D1, column 6, lines 1 to 6) and thus met the requirement of claim 1 of "*switching automatically*".

For these reasons, the subject-matter of claim 1 of the second auxiliary request did not involve an inventive step.

XIV. The respondent's arguments can be summarised as follows.

Second auxiliary request, lack of clarity (Article 84 EPC) and sufficiency of disclosure (Article 83 EPC)

The amendments of claim 1 were clear. From paragraphs [0007], [0022], [0042], [0053] to [0056] and [0059]; the beginning of paragraph [0061]; and claim 5 and Figure 10 (reference sign 303) of the patent, it was clear that the gist of the invention was the automatic switching from one print head to the other when there was a malfunction to provide continuity of the production process. The alternative embodiments disclosed in paragraphs [0054] and [0061] of the patent did not fall under the scope of claim 1.

The term "becoming faulted" meant developing a malfunction. How the faults were detected was outside the scope of the invention and, consequently, could not lead to an insufficiency of disclosure. The fault detection might be automatic or manual. This was not specified in claim 1. However, as, for instance, print heads with self-diagnostic capability or a machine inspection system had been available at the priority date as off-the-shelf components, the person skilled in the art would have first chosen an automatic fault detection system.

Second auxiliary request, added subject-matter (Article 123(2) EPC)

Amended claim 1 met the requirements of Article 123(2) EPC. The omission of the specific sequence of steps disclosed in the first three paragraphs of page 14 did not constitute an unallowable intermediate generalisation. The skilled person reading the description as a whole would have understood that the detailed sequence of steps described on page 14 related to one specific, exemplary implementation. However, the scope of disclosure was not limited to this particular implementation. The first sentence of the third paragraph on page 14 of the application as filed summarised the essential general feature delivered by the two preceding paragraphs. This summary was consistent with the general disclosure on page 10 and the exemplary mode transitions on page 13, lines 2 to 4 of the application as filed. The contested feature was not an isolated statement; it was part of the general technical teaching that the print heads should be switched automatically in response to a malfunction.

Non-admittance of document E2

Document E2 was not reliable evidence of the common general knowledge in 2003. Document E2 was, at most, evidence of the personal knowledge of Mr Cau or the proprietary know-how of his employer. There was nothing in Mr Cau's statement to prove that the knowledge to which he referred was shared by anyone else. It contained the assertions and opinions of an employee of the opponent, made almost 15 years after the priority date, based solely on his own recollection, without any documentary evidence. Its evidential value had to be weighed accordingly. An unsworn statement by an

employee of an opponent could not be relied upon as the sole evidence of the common general knowledge for supporting an inventive-step attack. Finally, even if document E2 were proof that the skilled person had an inherent motivation to reduce wastage, the document would still be *prima facie* not relevant because it did not demonstrate that it would have been obvious to modify document D2 to provide a finite unprinted region. Document E2 should therefore not be admitted into the proceedings.

*Second auxiliary request, lack of inventive step
(Article 56 EPC)*

In the decision under appeal (see decision under appeal, Reasons, 5.3.1), the features that the first and second inkjet print heads were used to print images on the substrate separated from each other at the same pitch interval and that the first plurality of images was separated from the second plurality of images by an unprinted region in the web direction no greater than 50 times the pitch interval were identified as distinguishing features. In addition to the differences established by the opposition division, document D2 did not disclose that the images of a first plurality of images printed by a first inkjet print head were separated from each other in the web direction at a pitch interval (feature D) but at (different) pitch intervals. The relevant passage in document D2 was found in column 4, lines 10 to 14, according to which "*it is preferred that images be formed at appropriate intervals on the impervious material so that each individual diaper carries an image printed thereon which will vary when the diaper is wetted by a body fluid*". This wording did not directly disclose a first plurality of images printed by a first inkjet print

head separated from each other in the web direction at a pitch interval.

The technical effect of these distinguishing features was discussed in paragraph [0042] of the patent. It was found that it was better to continue production in the event of an unexpected malfunction of the print head even at the expense of a limited unprinted region in the substrate than to stop and restart the converting line. Starting from document D2 and faced with the objective technical problem of increasing production efficiency, it would not have been obvious to introduce an unprinted region of no greater than 50 times the pitch interval.

A combination with document D1 would also not have resulted in the claimed invention. The skilled person would firstly not have turned to document D1, which did not relate to the manufacture of diapers or any other type of hygienic articles but to fluid jet printing on large rolls of fabric (see document D1, column 1, line 33 and column 6, lines 36 to 39 (large scale of the plant and product being the whole roll)). In contrast, in document D2, a polyethylene plastic sheet was printed (see document D2, column 4, line 61 and column 5, line 39), and the manufactured articles were discretised at the end of the production line (see document D2, column 4, lines 45 to 47).

Even if the skilled person had turned to document D1, it would not have led to the present invention because document D1 only suggested shifting operations between the print heads to enable planned operations such as servicing or applying different printing fluids (see document D1, column 1, lines 28 to 36 and column 3, lines 31 to 35). Unplanned malfunctions were not

mentioned. In addition, the fact that any non-used print station was translated to an "out-of-the way position" (see document D1, Figure 4 and column 1, line 62 to column 2, line 2) prevented it from being brought into service quickly in the event of unplanned malfunctioning. Furthermore, document D1 did not disclose any unprinted region.

The subject-matter of claim 1 of the second auxiliary request was further distinguished by the feature of *"switching automatically from the first inkjet print head while the substrate continues its movement, when the first inkjet print head becomes faulted"* (feature C), also contributing to the reduction of wastage when a print head was taken out of service for any reason (see paragraph [0042] of the patent). Starting from document D2 and being faced with the objective technical problem of reducing wastage when a print head was taken out of service, it would not have been obvious to implement automatic switching when a print head became faulted. Document D2 only disclosed the use of a "secondary printing head" for the purpose of changing the ink composition. A switch-over between these two print heads would only occur when the operator decided to print with a different ink. There was no suggestion in document D2 to switch print heads automatically in response to an unexpected malfunction. The same applied for document D1. Automated switching between print heads in response to a fault was not part of the common general knowledge at the priority date. Before the priority date, the automatic course of action would have been to stop the converting line automatically upon detection of a fault. This would also have minimised the wastage of materials but without any increase in production efficiency. This solution was not part of the present invention.

In view of these reasons, the subject-matter of claim 1 of the second auxiliary request involved an inventive step over document D2 alone and in combination with document D1.

Reasons for the Decision

1. *Second auxiliary request, clarity (Article 84 EPC) and sufficiency of disclosure (Article 83 EPC)*

1.1 Claim 1 of the second auxiliary request differs from claim 1 as granted in that step (c) is amended by the addition of the underlined wording:

"(c) switching automatically from the first inkjet print head to a second inkjet print head (114) while the substrate continues its movement, when the first inkjet print head becomes faulted."

From a formal point of view, reference is made to decision G 3/14 (OJ EPO 2015, A102), in accordance with which amended claims of a patent may be examined for compliance with the requirements of Article 84 EPC only when - and then only to the extent that - the amendment introduces a lack of clarity.

The board observes that this condition is met since the contested wording was not present in claim 1 as granted but was added to the claim during post-grant proceedings. The board is therefore in a position to examine whether the amendment introduces a lack of clarity, as alleged by the appellant.

1.2 As to the substance, the appellant objected to the terms "automatically" and "becomes faulted".

In the context of the patent, the term "automatically" generally defines an action without user involvement. The gist of the invention is to ensure a continuous, uninterrupted production of hygienic articles (see paragraph [0042] of the patent). According to paragraphs [0054] and [0061] of the patent as granted, the switching can be triggered by a user or an automated sequence. However, the user involvement is clearly identified as an alternative to automatic switching and, following the amendment, no longer falls under the scope of claim 1 and will have to be deleted in an adapted description.

The appellant further objected that it was unclear whether amended claim 1 required the automatic detection of a fault followed by the subsequent automatic switching or it merely called for automated switching. The board notes that in amended claim 1, the switching is done automatically. Claim 1 remains silent on whether the fault detection takes place automatically; it merely mentions the condition for automatic switching: "when the first inkjet print head becomes faulted". This is in accordance with the disclosure of the patent as a whole, which is concerned with the automatic switching but not with the kind of fault detection.

The appellant argued that the term "*becomes faulted*" was unclear. The respondent cited several passages in the patent which refer to the term "*faulted*" in relation to the print heads, meaning a malfunction of the print head. The respondent stated that the detection of faults was outside the scope of the present invention and that print heads with self-diagnostic capability or machine vision inspection

systems were generally known for such applications. The board agrees with the respondent's arguments.

Malfunction in general is mentioned in paragraphs [0007], [0022] and [0042] of the patent. Figure 10 and paragraph [0050] of the patent describe the three operating modes of the inkjet print heads, i.e.

"standby or idle mode 301, a run mode 302, and a fault mode 303". Stating that a print head "becomes faulted" means that the print head develops a malfunction and, as a consequence, enters a fault mode. The term *"when the first inkjet print head becomes faulted"* is a condition which, when fulfilled, triggers the automatic switching of the print heads. Consequently, the term *"becomes faulted"* is clear in the context.

- 1.3 In view of the above, the requirements of Article 84 EPC are met.

- 1.4 As claim 1 does not require an automated detection of a fault without user intervention, the appellant's objection with respect to insufficiency of disclosure is moot. Although the patent does not provide any indication of how a fault in a print head is detected, the gist of the invention is the automatic switching of the print heads on the condition that a fault is detected. Moreover, the person skilled in the art is familiar with different systems for fault detection, as argued by the respondent.

- 1.5 In view of these considerations, the board is satisfied that the requirements of Article 83 EPC are met.

2. *Second auxiliary request, no added subject-matter (Article 123(2) EPC)*
- 2.1 Regarding the requirements of Article 123(2) EPC, the dispute hinges on whether the feature of claim 1 "when the first inkjet print head becomes faulted" constitutes an intermediate generalisation and thus extends beyond the content of the patent application as filed.
- 2.2 The "gold standard" (G 2/10, OJ EPO 2012, 376) for assessing compliance with Article 123(2) EPC requires that any amendment can be made only within the limits of what a skilled person would derive directly and unambiguously, using common general knowledge, and seen objectively and relative to the date of filing, from the whole of the application documents as filed (see also G 3/89, OJ EPO 1993, 117 and G 11/91, OJ EPO 1993, 125). For identifying the actual teaching conveyed by the original disclosure, the content of the patent application as filed is not limited to what is explicitly stated but includes any teaching implicit for the person skilled in the art. The underlying idea is that after the amendment, the skilled person must not be presented with new technical information (G 2/10, *supra*).
- 2.3 In the case at issue, the relevant passage on page 10, second paragraph of the application as filed discloses:

"The switching between the print heads 112 and 114 enables continuous, uninterrupted production of hygienic articles on a converting line when a print head needs to be taken out of the print mode for any reason, including any type of malfunction or scheduled

maintenance, for cleaning and the like. The second print head provides a desired back up by automatically switching from a standby mode to a production mode." (emphasis added)

This passage explicitly discloses that when a print head develops a malfunction (see the underlined part), it has to be taken out of the print mode and the second print head will automatically switch to the production mode. As already discussed under item 1.2 above, the term "*becomes faulted*" is to be interpreted as "*develops a malfunction*". Thus, the situation described in the cited paragraph summarises the general teaching of the present invention on what is done if a first or second inkjet print head becomes faulted (see "*and vice versa*"). The appellant argued that this passage did not disclose an automatic switching of the print heads when the first print head becomes faulted but only when the first print head is taken out of the print mode, i.e. only an automatic switching of the second print head from the standby to the production mode.

To establish whether the requirements of Article 123(2) EPC are fulfilled, what the general teaching of the patent is and what the person skilled in the art would implicitly derive from it must be determined.

In light of the whole disclosure, the skilled person is taught that there is either a manual switching or an automatic switching. If the fault condition is fulfilled ("*when the first inkjet print head becomes faulted*"), one print head switches from the run mode to the fail mode, i.e. transition 313 according to the embodiment disclosed in Figure 10, and the other print head switches from the standby mode to the run mode, i.e. transition 311 according to Figure 10. There are

two alternatives, either both transitions are the consequence of a manual switching or both result from an automatic switching (see page 12, last paragraph to page 13, first paragraph and page 14, first to third full paragraph of the application as filed). However, following the amendment, the manual switching no longer falls under the scope of claim 1. The skilled person can therefore derive that the switching between the print heads is done automatically from the application as filed. By contrast, the scenario put forward by the appellant that only the switching of the second print head is automatic while the switching of the first print head is manual has no basis in the cited passages of the original application.

Thus, the teaching that *"switching automatically from the first inkjet print head to a second inkjet print head (114) while the substrate continues its movement, when the first inkjet print head becomes faulted"* is implicitly but unambiguously derivable from the disclosure on page 10, second paragraph of the application as filed. It is also in line with the whole disclosure, in particular the specific embodiments as disclosed in the first two paragraphs of page 13 and the first two full paragraphs of page 14 of the application as filed. As the claim amendment is clearly disclosed in the general passage on page 10, second paragraph, the more detailed steps of the first print head being switched from the run mode to the fault mode and of the stopping of the first print head sending the OK signal to the converter controller are not disclosed as being inextricably linked with the amendment *"when the first inkjet print head becomes faulted"* - as argued by the appellant. Their omission does not constitute an intermediate generalisation going beyond

the content of the application as originally filed.

2.4 For these reasons, the board concludes that the subject-matter of claim 1 of the second auxiliary request meets the requirements of Article 123(2) EPC.

3. *Admittance of document E2*

3.1 Document E2 is a declaration by Mr José Francisco Cau, an employee of the appellant company Johnson & Johnson. It states that typical inkjet print heads on absorbent article production lines were programmable, that it was routine to avoid wastage since unprinted regions could not be used to produce the printed absorbent articles and that it would have been routine to program the second print head to start immediately after the first print head stopped.

3.2 Document E2 was filed two months prior to the oral proceedings before the opposition division. However, after having heard the parties (see minutes of the oral proceedings, bottom of page 2), the opposition division decided not to admit this document into the proceedings since it was not considered *prima facie* relevant. Its content did not go beyond the disclosure of document D2 (see decision under appeal, Reasons, 6.).

3.3 Together with the statement setting out the grounds of appeal, the appellant re-submitted document E2 because it was considered *prima facie* relevant for inventive step. According to the appellant, the opposition division was wrong not to admit it into the proceedings.

3.4 Following the provisions of Article 12(4) RPBA 2007, which apply here in view of Article 25(2) RPBA 2020, it

is at the discretion of the board to not admit into the appeal proceedings facts and evidence not admitted in the first-instance proceedings. Since document E2 was filed outside the time limit under Article 99 EPC, it was at the opposition division's discretion not to admit it into the proceedings. In this context, the board is first charged with reviewing the opposition division's exercise of its discretion. A board should only overrule how a department of first instance exercised its discretion if the board concludes that it did so according to the wrong principles, or without taking into account the right principles, or in an unreasonable way (G 7/93, OJ EPO 1994, 775). The board finds that under the circumstances of the case, the opposition division exercised its discretion in accordance with the proper criteria (*prima facie* relevance) and in a reasonable manner.

Moreover, considering that document E2 was re-submitted in appeal proceedings, the board, in exercising its own discretion under Article 12(4) RPBA 2007, comes to the conclusion that the reasons provided by the opposition division for not admitting this document, with regard to the lack of *prima facie* relevance, are still applicable as document E2 would not provide additional information to the disclosure of document D2. In addition, on account of the principle that an assertion that something is common general knowledge needs to be backed by documentary evidence (such as a textbook) if it is contested, the board observes that the declaration by Mr Cau, absent further documentary evidence, is not suitable for objectively proving the skilled person's common general knowledge at the priority date of the patent.

3.5 The board thus decides not to admit document E2 into the appeal proceedings in compliance with Article 12(4) RPBA 2007.

4. *Second auxiliary request, inventive step (Article 56 EPC)*

4.1 Closest prior art and distinguishing features

Both parties considered document D2 to be the closest prior art, which does not disclose the following features:

A) the first and second inkjet print heads are used to print images on the substrate separated from each other at the same pitch interval

B) the first plurality of images is separated from the second plurality of images by an unprinted region in the web direction which is no greater than 50 times the pitch interval

C) switching automatically from the first inkjet print head to a second inkjet print head while the substrate continues its movement when the first inkjet print head becomes faulted (feature added to claim 1 as amended during opposition proceedings)

It was disputed whether document D2 discloses the feature that a first plurality of images printed by a first inkjet print head are separated from each other in the web direction at a pitch interval (feature D)).

The board concurs with the respondent that the passage in document D2, column 4, lines 8 to 14 does not disclose "a pitch interval". Due to the term "at pitch

intervals" and in combination with the teaching that "each individual diaper carries an image printed thereon" (emphasis added), there might be images at different intervals which fulfil the condition that each individual diaper carries an image printed on it.

4.2 Effect of the distinguishing features

Features A) and D) only contribute to an alternative design of the absorbent article. No special technical effect is related to these features, which thus do not contribute to an inventive step. The core issue of the invention is reflected by features B) and C).

Features B) and C) have the technical effect that wastage is reduced while at the same time a high production efficiency is achieved. This is reflected in paragraphs [0007], [0008], [0022] and [0042] of the patent.

4.3 Objective technical problem

The objective technical problem solved by features B) and C) is to increase production efficiency and reduce wastage.

4.4 Obviousness in view of document D2 alone

The solution is not rendered obvious by document D2 alone. Document D2 does not mention a print head becoming faulted. In document D2, the print heads are switched without the need to halt the diaper fabrication process to change the ink composition. Document D2 provides no suggestion at all to the skilled person that the print heads should automatically switch when the first print head becomes

faulted. In fact, document D2 does not mention the malfunctioning of a print head. In contrast to the known change of the ink composition as a result of a planned action, the claimed automatic switching of the print heads when a print head becomes faulted is an unplanned event which implies not only a different structural set-up of the production line but also a considerable modification of the printing method, none of which is rendered obvious by document D2 alone.

- 4.5 Obviousness in view of document D2 in combination with document D1
 - 4.5.1 The skilled person starting from document D2 and being faced with the objective technical problem of increasing production efficiency and reducing wastage would not consult document D1. Document D1 discloses a fluid jet printing apparatus for a substrate (see document D1, column 1, lines 6 to 9), for example a fabric (see document D1, column 1, line 33). It is not concerned with hygienic articles but with rolls of fabric. While in document D2 the printing takes place on a polyethylene sheet (see document D2, column 4, lines 66 to 67), the substrate in document D1 is a fabric. Although the general term "substrate" is used in document D1, it is clear from its whole disclosure that the product is a roll of fabric and not a separated hygienic article as in document D2. The scale of the apparatus shown in document D1 is larger than for diaper manufacturing lines (see, for instance, the reference to the catwalks: document D1, Figure 5, reference signs 106, 108).
 - 4.5.2 Even if the skilled person considered combining the teachings of document D2 and document D1, they still would not have arrived at the claimed invention.

Although document D1 discloses the servicing of the serially arranged print heads while continuously moving the substrate through the printing system, thus eliminating system down time (see document D1, column 3, lines 31 to 35), the switching from one print head to the other is either the result of planned servicing or done for the serial application of different printing fluids. Thus, feature C) "*switching automatically from the first inkjet print head to a second inkjet print head (114) while the substrate continues its movement, when the first inkjet print head becomes faulted*" is neither disclosed in nor rendered obvious by document D1.

- 4.5.3 While the board shares the appellant's view that an automatic control of the print heads can be considered implicitly known from document D1, the document remains silent on the claimed condition that a print head becomes faulted. Also, the passage in column 6, lines 1 to 6 of document D1 cited by the appellant is not concerned with the malfunctioning of the print head but with printing with one or more fluids.
- 4.5.4 Consequently, even by combining the teachings of documents D2 and D1, the skilled person would not have arrived at the claimed invention.
- 4.6 In light of these considerations, the subject-matter of claim 1 of the second auxiliary request involves 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 case is remitted to the opposition division with the order to maintain the patent on the basis of claims 1 to 9 filed with the reply to the statement of grounds of appeal as the second auxiliary request and a description and drawings to be adapted.

The Registrar:

The Chairman:



N. Schneider

P. Lanz

Decision electronically authenticated