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**Datasheet for the decision
of 4 November 2015**

Case Number: T 0921/12 - 3.2.05

Application Number: 04106011.2

Publication Number: 1537998

IPC: B41J2/165

Language of the proceedings: EN

Title of invention:

Device and method for handling ink drops

Applicant:

Océ-Technologies B.V.

Relevant legal provisions:

EPC 1973 Art. 54(1), 84, 111(1), 113(1)

EPC 1973 R. 67

RPBA Art. 13(1), 13(3), 20(1)

Keyword:

Main request - admissibility (yes); novelty and clarity (no)

Auxiliary request 1 - admissibility (yes); novelty (no)

Request for remittal (dismissed)

Reimbursement of the appeal fee (no)

Referral to the Enlarged Board of Appeal (no)

Decisions cited:

G 0010/93, T 0160/09



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Case Number: T 0921/12 - 3.2.05

D E C I S I O N
of Technical Board of Appeal 3.2.05
of 4 November 2015

Appellant: Océ-Technologies B.V.
(Applicant) St. Urbanusweg 43
5914 CC Venlo (NL)

Representative: Paulus J. P. Janssen
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 3 November 2011
refusing European patent application
No. 04106011.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman P. Lanz
Members: O. Randl
G. Weiss

Summary of Facts and Submissions

- I. This appeal lies against the decision of the examining division to refuse the application No. 04106011.2, which concerns a device and a method for receiving and discharging ink drops from a printhead.

The examining division held that the application did not meet the requirements of Articles 52(1) and 54(1) (2) EPC 1973 having regard *inter alia* to document D1 (US 6,082,848).

- II. Oral proceedings before the board were held on 4 November 2015.

- III. The appellant (applicant) requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims filed as main request with letter dated 24 September 2015 or, alternatively, on the basis of the claims filed as auxiliary request 1 at the oral proceedings or, as auxiliary request 2, that the case be remitted to the examining division for further prosecution. Furthermore it requested that the appeal fee be reimbursed or, as auxiliary measure, that the questions submitted with letter dated 24 September 2015 be referred to the Enlarged Board of Appeal.

- IV. Claim 1 of the main request read:

"Device (1) for conveying ink drops (20) from a receiving station, where the ink drops originating from a print head (2) are received, to a discharge station, where the ink drops in a dried condition are discharged, wherein the device comprises

- a conveyor belt (4) for receiving and conveying the ink drops, the conveyor belt having a belt surface for supporting the ink drops during their conveyance from the receiving station to the discharge station, the belt surface being arranged for receiving the ink drops in a liquid condition and to allow the ink drops to dry on the belt surface forming a disc-shaped plaque (21), the disc-shaped plaque having resistance to bending, wherein at the discharge station the conveyor belt is provided with means for loosening at least a leading portion (21a) of the plaque by changing the path of movement (B) of the belt surface as considered in a vertical plane according to a convex turning path, wherein the change of the path of movement (B) of the belt surface is so sharp that the leading portion of the plaque continues its path of movement (C) different than the path of movement (B) of the belt surface."

Claim 1 of the auxiliary request 1 was identical to claim 7 of the main request and read:

"Method for conveying ink drops (20) from a receiving station, where the ink drops originating from a print head (2) are received, to a discharge station, where the ink drops in a dried condition are discharged, wherein the method comprises the steps of

- receiving the ink drops in a liquid condition on a belt conveyor surface,
- allowing the ink drops to flow out over the belt surface and to set on the belt surface so as to form a disc-shaped plaque (21) having resistance to bending,
- progressively peeling off a leading portion (21a) of the plaque from the belt surface by sharply changing the path of movement (B) of the belt surface according to a convex turning path, the leading portion of the

- plaque continuing its path of movement (C) different than the path of movement (B) of the belt surface,
- completely loosening the ink drops from the belt surface; and
 - delivering the ink drops to an ink drop collector (11)."

V. The appellant argued as follows:

a) Main request

i) Admissibility

The request should be admitted because it was a reaction to an objection raised in the communication of the board annexed to the summons to oral proceedings.

ii) Clarity

The feature related to the bending resistance of the plaque of dried ink had to be seen in combination with the sharp change of the path of movement. The droplets as such were not part of the device, but they allowed to define the sharpness of the change of the path of movement of the belt in the device. It was known what kind of ink was to be used in the device and how it would spread. Therefore, even when contemplating the device when switched off, the skilled person would know whether the sharpness of the path of movement of the belt of a given device could be expected to be sufficient for the device to achieve a loosening of the plaque.

Column 5, line 15 of document D1 disclosed that "these inks instantly constantly coagulate into a gel", i.e. into something that has no resistance to bending and

will not be loosened by the flexing of the belt. Moreover, there was a disclosure in column 7, lines 8-9 that hardened ink was broken off in pieces.

A plaque was not necessarily formed by a single droplet of ink. It was possible to form a plaque from several droplets, wait until it had hardened and then transport it. It was not necessary to provide more details on the ink because the skilled person would understand that he could make a plaque independent of the drop size and the viscosity and other properties of the ink.

iii) Novelty

In Fig. 5 of document D1 the loosening of the ink was due to gravity; in Fig. 7 arguably there was no loosening due to the flexing. If concave and convex rollers were used in the device of Fig. 7, the ink would not be loosened by the turning of the belt around the rollers 104 and 106, but by the flexing movement of the belt. The sharpness of the movement of the belt of Figs. 5 to 7 was not disclosed as contributing to the loosening of the ink. The belt was not flexed when it went around the rollers. If the plaque was loosened by the flexing of the belt before it reached the roller, then it could not be said to have been loosened by the change of direction of the belt.

b) Auxiliary request 1

i) Admissibility

The filing of this request was triggered by the finding of the board that device claim 1 was not novel. Method claim 7 had not been discussed so far and comprised some aspects that were clearly distinguishing its

subject-matter from the disclosure of document D1. The appellant should have the opportunity of having the method claims examined.

ii) Novelty

Claim 1 was novel over the disclosure of document D1. There was no indication in Figs. 5 to 7 of that document that the ink drops flow out over the belt surface and set on the belt surface so as to form a disc-shaped plaque. Moreover, there was no disclosure of any "progressively peeling off" of the leading portion of the plaque.

c) Allowability of the request for remittal

In accordance with the decision of the Enlarged Board of Appeal G 10/93, point 4 of the reasons, proceedings before the boards of appeal in *ex parte* cases were primarily concerned with examining the contested decision. As the claims of the main request were found not to be allowable, the appellant wished to have the opportunity to make another attempt to discuss the matter with the examining division and, if necessary, with the board of appeal.

d) Reimbursement of the appeal fee

The appeal fee should be reimbursed because the examining division had infringed the appellant's right to be heard. The impugned decision had not duly dealt with the arguments which the appellant had presented during the first instance proceedings.

e) Referral to the Enlarged Board of Appeal

If the board came to the conclusion that the examining division had not violated the appellant's right to be heard, this would contradict the established jurisprudence of the boards of appeal and, therefore, justify a referral to the Enlarged Board of Appeal.

f) Demand under Article 20(1) RPBA

In case the board reached the conclusion that the appellant's right to be heard had not been violated, thereby deviating from the requirements laid down by the jurisprudence, but nevertheless refused the request for a referral to the Enlarged Board of Appeal, the board should act in accordance with Article 20(1) RPBA by giving the grounds for this deviation.

Reasons for the Decision

1. The application under consideration was filed on 23 November 2004; therefore, according to Article 7 of the Act revising the EPC of 29 November 2000 (Special edition No. 4 OJ EPO, 217) and 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 (Special edition No. 4 OJ EPO, 219), Articles 54, 84 and 111 to 113 EPC 1973 apply in the present case.

2. Claim interpretation: "loosening"

The original application does not contain a definition of the expression. Therefore, it is necessary to determine its meaning by examining the meaning of the word as such and in its immediate context, i.e. the

claims and the description of the original patent application.

The Oxford English Dictionary defines "loosen" *inter alia* as "to set free or release from bonds or physical restraint" or "to weaken the adhesion or attachment of; to unfix, detach". This latter meaning appears to correspond to the various uses of the expression in the description of the original application. The application states that "the ink drops on the belt have to loosen in order to fall on the bottom wall of the refuse chamber" (page 1, lines 33-34). Also, the case where "the plaque 21 will completely loosen from the belt surface" is opposed to the situation where "a small trailing portion 21b of the ink plaque 21 may remain attached to the belt surface" (page 5, lines 23-25; underlining by the board). The drafter of the original application appears to have used the verb "loosen" as a synonym to "detach". Thus, the board has reached the conclusion that the skilled person contemplating the original application would have understood "means for loosening" dried ink drops to designate means that allow to detach those drops from the conveyor belt.

3. Main request

3.1 Admissibility

The board is satisfied that the request was filed as a response to clarity objections raised in the communication under Article 15(1) of the Rules of Procedure of the Boards of Appeal (RPBA). The board has, therefore, decided to exercise its powers under Article 13(1) and (3) RPBA and to admit the request.

3.2 Clarity

The subject-matter of claim 1 is unclear because the device for conveying ink drops is *inter alia* defined via properties of the ink. Claim 1 requires the ink to dry in the form of disc-shaped plaques and the latter to have a "resistance to bending". The change of path of movement of the belt surface is required to be "so sharp that the leading portion of the plaque continues its path of movement different than the path of movement of the belt surface". According to the appellant the behaviour of the leading portion of the plaque is related to the resistance of the dried ink plaques to bending. Thus the claimed device is characterised by the drying behaviour of ink the relevant properties of which - such as its viscosity - are not specified. Several passages of document D1 show that the inks used in printheads may differ greatly in their physical behaviour: for instance, they may form gels (column 5, line 15) but also solidify to an extent that they have to be broken (column 7, lines 8-9). In order to determine the precise scope of the claim, the skilled person would have to examine the drying behaviour of all inks that could be used in the printhead and their rigidity after drying and could only derive information on the required "sharpness" of the change of the path of movement after extensive experimentation. Such a definition of the device leaves the skilled person in considerable doubt in respect of the scope of the claim and, therefore, does not meet the requirements of Article 84 EPC 1973.

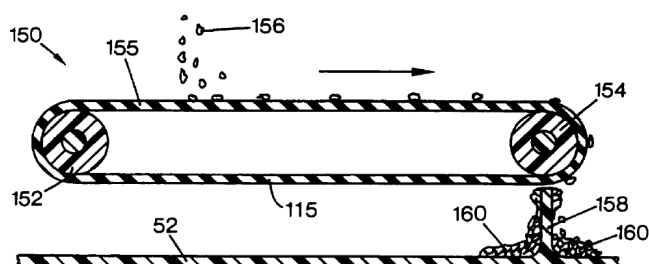
The argument that the skilled person would know how to form a plaque from several droplets of ink, independent of the drop size and the viscosity and other properties of the ink appears to be related to sufficiency of

disclosure of the invention rather than to the clarity of the claim; such knowledge would not assist the skilled person in delimiting the scope of the claim, in particular in respect of the required sharpness of transition.

3.3 Novelty

Document D1 (Fig. 7) discloses a device for conveying ink drops 156 from a receiving station (i.e. the place where the ink drops enter in contact with the belt 155) to a discharge station (around scraper 158) where the ink drops are discharged in a dried condition ("ink solids 160", see col. 6, lines 27-28).

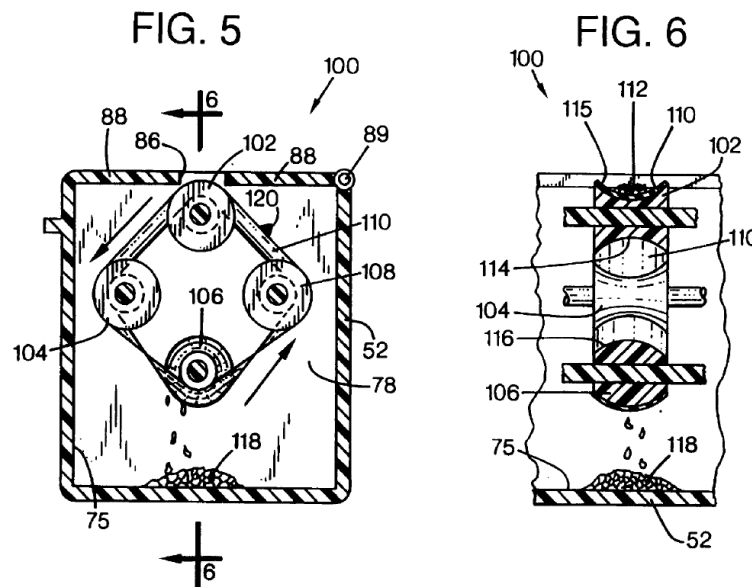
FIG. 7



The device comprises a conveyor belt 155 for receiving and conveying the ink drops. As can be seen from Fig. 7, the conveyor belt has a belt surface for supporting the ink drops during their conveyance from the receiving station to the discharge station. Ink is normally in a liquid condition and document D1 mentions that even when the ink forms a gel, some residual liquid remains (column 5, lines 15-16). Thus the belt surface of conveyor belt 155 is arranged to receive ink drops in a liquid condition. There is nothing in the device of Fig. 7 that would hinder the ink drops from

drying on the belt surface forming a disc-shaped plaque, so that the device can be said to allow the generation of such plaques. The resulting dried plaques necessarily have some resistance to bending.

Document D1 (col. 6, lines 28-35) discloses an alternative embodiment in which the cylindrical rollers 152 and 154 are replaced with concave and convex rollers such as the rollers 102 and 106 of Figs. 5 and 6.



Document D1 (col. 6, lines 32-33) also discloses that "the scraper 160 (sic) may be omitted in such a contoured roller embodiment". The skilled person would understand that at least a significant part of the ink drops may be loosened when concave and convex rollers are used, even without a scraper. As a matter of fact, document D1 teaches (col. 5, lines 59-61) that "an ink removal device [is] formed by the contours of rollers 102 and 106 [of Figs. 5 and 6], rather than through the use of a scraper 90".

Therefore, when concave and convex rollers are used in the device shown in Fig. 7, the device is undoubtedly provided with means for loosening the plaques. It is also clear from Fig. 7 that at the rollers the belt surface undergoes a change of path of movement according to a convex turning path, and this would still be the case if concave and convex rollers were used.

The critical issue is whether the plaques (or at least their leading portions) are loosened by changing the path of movement of the belt surface. The board is unable to endorse the view that when the ink drops are loosened by means of concave and convex rollers, the loosening occurs as a consequence of the flexing of the belt and not by the change of the path of movement of the belt, because both actions are inseparably linked as a consequence of the geometry of the rollers. In other words, the belt is being flexed because it is driven over a convex and a concave roller, and it changes its path of movement for the very same reason; if it did not change its path of movement, it would not be flexed either. Thus the device comprises means for loosening at least a leading portion of the plaque by changing the way of movement of the belt surface, as required by claim 1.

Since the ink is removed as a consequence of the use of concave and convex rollers that change the path of movement, it is clear that at some point around the roller the leading portion of the plaque continues its path of movement different than the path of movement of the belt surface. If the plaque is completely loosened by the flexing of the belt, even before the plaque reaches the roller, then this separation of the leading portion of the plaque from the belt will occur at the

latest when the belt bends downwards in order to run around the roller.

The board has, therefore, reached the conclusion that all the features of claim 1 are disclosed in combination in document D1. Consequently, the subject-matter of claim 1 cannot be considered to be new within the meaning of Article 54 EPC 1973.

3.4 As claim 1 of the main request is not clear within the meaning of Article 84 EPC 1973 and its subject-matter is not new within the meaning of Article 54 EPC 1973, the main request cannot be allowed.

4. Auxiliary request 1

4.1 Admissibility

The board has decided to exercise its discretionary power conferred by Article 114(2) EPC 1973 and Article 13(1) and (3) RPBA and to admit auxiliary request 1. The claims forming the new request were already part of the main request. They do not raise issues which the board could not reasonably be expected to deal with without adjournment of the oral proceedings.

4.2 Novelty

Document D1 discloses and claims a device for conveying ink drops from a receiving station, where the ink drops originating from a print head are received, to a discharge station, where the ink drops are discharged, but the operation of that device also implicitly discloses a corresponding method (Fig. 7; cf. method claims 11-14 and 20-24).

As already stated under point 3.3, ink is normally in a liquid condition and document D1 mentions that even when the ink forms a gel, some residual liquid remains (column 5, lines 15-16). Thus ink drops are received in a liquid condition on the belt conveyor surface. Also, there is nothing in the device of Fig. 7 that would hinder the ink drops from drying on the belt surface forming a disc-shaped plaque, so the ink drops are being allowed to flow out over the belt surface and to set on the belt surface so as to form a disc-shaped plaque. The resulting dried plaques necessarily have some resistance to bending.

When concave and convex rollers as those disclosed in Figs. 5 and 6 are used in the device of Fig. 7, the plaque is being detached by flexing of the belt surface. This flexing is linked to the sharp change of the path of movement of the belt surface due to the presence of the rollers, as explained under point 3.3. As the flexing of the belt is progressive from concave to convex, the plaque may be expected to be detached in a progressive manner until it is completely detached, including the leading portion. This action may be described as "progressively peeling off a leading portion". Finally the ink drops are delivered to a collector.

The board has, therefore, reached the conclusion that all the features of claim 1 are disclosed in combination in document D1. Consequently, the subject-matter of claim 1 cannot be considered to be new within the meaning of Article 54 EPC 1973.

5. Allowability of the request for remittal

The request for a remittal of the case to the examining division for further prosecution "if objections remain or arise" (written submission of the appellant dated 24 September 2015, item 4.5, second paragraph) cannot be granted in the present case, where all substantive requests on file have been found unallowable.

It is true that the Enlarged Board of Appeal has stated in its decision G 10/93 (OJ EPO 1995, 172), point 4 of the reasons, that proceedings before the boards of appeal in *ex parte* cases were primarily concerned with examining the contested decision. However, this does not mean that the board can only review the decision of the examining division; otherwise, it could not have admitted the main request as well as auxiliary request 1 of the appellant, neither of which had been examined by the examining division. As a matter of fact, Article 111(1) EPC 1973 stipulates that the board "may either exercise any power within the competence of the department which was responsible for the decision appealed or remit the case to that department for further prosecution". The possibility of exercising any power within the competence of the examining division (which includes the admission and examination of new requests) enshrined in Article 111(1) EPC 1973 clearly contradicts the view according to which the boards are strictly limited to reviewing the impugned decision.

In case T 160/09 the competent board had been presented with a similar request for remittal and made the following statement

"... it would make no sense to ... remit the case to the examining division for further prosecution. The reasons for the decision of the board would have to be

given, and the negative conclusions would therefore be part of the *ratio decidendi* of the decision. The examining division would therefore be bound by those conclusions (Article 111(2) EPC 1973). Thus the only purpose of such a remittal would be to give the appellant a further opportunity to amend its case to rely on new facts, such as new, more restricted, claims. But any such facts could and should be submitted to the board itself, preferably with the grounds of appeal (Articles 12(2) and 13(1) RPBA). The appellant is effectively asking for a blank cheque to further modify its case, together with a further opportunity to appeal. Accession to such a request would require truly exceptional circumstances, of a nature which the board cannot presently envisage." (point 1 of the reasons).

The present board endorses this point of view. A remittal of the kind requested by the appellant would be tantamount to having the grant proceedings pending indefinitely, which is not in the interest of the public.

As the board cannot see any exceptional circumstances that would justify a remittal, this request is not granted.

6. Reimbursement of the appeal fee

Rule 67 EPC 1973 stipulates that "[t]he reimbursement of appeal fees shall be ordered ... where the Board of Appeal deems an appeal to be allowable, if such reimbursement is equitable by reason of a substantial procedural violation" (underlining by the board).

As the board does not deem the appeal allowable, there is no legal basis for a reimbursement of the appeal fee, regardless of whether there has been a substantial procedural violation. Thus, the question of whether the impugned decision is affected by a substantial procedural violation can be left undecided.

The board concludes that the appellant's request for a reimbursement of the appeal cannot be allowed.

7. Referral to the Enlarged Board of Appeal

Pursuant to Article 112(1)(a) EPC 1973, "[i]n order to ensure uniform application of the law, or if an important point of law arises, the Board of Appeal shall, during proceedings on a case and either of its own motion or following a request from a party to the appeal, refer any question to the Enlarged Board of Appeal if it considers that a decision is required for the above purposes. ...".

The questions which the appellant requested to be referred to the Enlarged Board of Appeal all concern the standards for providing reasons under Rule 68(2) EPC 1973. In other words, these questions are related to the alleged violation of the appellant's right to be heard, which, in the opinion of the appellant, justified a reimbursement of the appeal fee.

As has been explained under point 6., the board cannot grant a reimbursement of the appeal fee in the present case. Therefore, the questions which the appellant wants to have referred to the Enlarged Board of Appeal are not required for the board's decision; regardless of the answers that the Enlarged Board might give, the request for reimbursement of the appeal fee would have

to be dismissed. However, according to the established jurisprudence of the boards, for a referral to be admissible, an answer to the question must be necessary in order for the referring board to be able to decide on the appeal (see "Case Law of the Boards of Appeal of the EPO", 7th edition, 2013, item IV.E.9.1.2 a)).

Therefore, the appellant's request for a referral to the Enlarged Board of Appeal cannot be granted.

8. Demand under Article 20(1) RPBA

The appellant asked the board in accordance with Article 20(1) RPBA in case it reached the conclusion that the appellant's right to be heard had not been violated, thereby deviating from requirements established by the jurisprudence of the boards of appeal, but nevertheless dismissed the request for a referral to the Enlarged Board of Appeal.

Article 20(1) RPBA stipulates:

"Should a Board consider it necessary to deviate from an interpretation or explanation of the Convention given in an earlier decision of any Board, the grounds for this deviation shall be given, unless such grounds are in accordance with an earlier opinion or decision of the Enlarged Board of Appeal. The President of the European Patent Office shall be informed of the Board's decision."

As the board is not in a situation where it has to deviate from an interpretation or explanation of the Convention given in an earlier decision of any Board, it cannot give grounds for such a deviation.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



D. Meyfarth

P. Lanz

Decision electronically authenticated