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**Datasheet for the decision
of 8 June 2015**

Case Number: T 0941/11 - 3.2.05

Application Number: 99301522.1

Publication Number: 0940258

IPC: B41J2/175

Language of the proceedings: EN

Title of invention:

Ink container refurbishment method

Patent Proprietor:

Hewlett-Packard Company

Opponent:

ETIRA European Toner & Inkjet Remanufacturers
Association a.i.s.b.l.

Relevant legal provisions:

EPC 1973 Art. 56, 100(a)
RPBA Art. 13(1)

Keyword:

Late submitted material - document admitted (yes)
Inventive step - (no)



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Chambres de recours**

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Case Number: T 0941/11 - 3.2.05

**D E C I S I O N
of Technical Board of Appeal 3.2.05
of 8 June 2015**

Appellant II:
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Decision under appeal:

**Interlocutory decision of the Opposition
Division of the European Patent Office posted on
18 March 2011 concerning maintenance of the
European Patent No. 0940258 in amended form.**

Composition of the Board:

Chairman M. Poock
Members: S. Bridge
M. J. Vogel

Summary of Facts and Submissions

- I. Both parties lodged respective appeals against the decision of the opposition division proposing to maintain the European patent No. 0 940 258 in amended form.

The opposition was filed against the patent as a whole based on Article 100(a) EPC (lack of novelty, Article 54 EPC, and lack of inventive step, Article 56 EPC).

- II. The parties were summoned to oral proceedings before the board on 6 March 2015. Both parties announced in respective letters that they would not attend. In consequence, these oral proceedings were cancelled.

- III. Appellant I (opponent) requested that the decision under appeal be set aside and that the patent in suit be revoked.

Appellant II (patent proprietor) requested that the decision under appeal be set aside and that the patent be maintained on the basis of the following sets of claims faxed on 6 February 2015:

- (a) claims 1 to 14 as main request; or
- (b) claims 1 to 10 as 1st auxiliary request; or
- (c) claims 1 to 10 as 2nd auxiliary request.

- IV. Claim 1 according to the main request corresponds to claim 1 as granted and reads as follows:

"A method for refilling a ink container (12) for a printing system (10), the ink container (12) having a housing (72), an ink reservoir (22) located within the housing (72) and having a fluid outlet (20) and a sealed fill port (122), a cap (116) mounted to the

housing (72) which encloses the fill port (122), a memory device (26) for communicating information concerning characteristics of the ink in the ink container (12) to the printing system (10), and at least one adhesive film (118) providing structural support between the housing (72) and the cap (116), the method comprising:

- (a) disabling the structural support provided by the adhesive film (118) and separating the cap (116) from the housing (72);
- (b) creating an opening in the ink reservoir (22);
- (c) refilling the ink reservoir (22) through the opening;
- (d) resealing the opening in the ink reservoir (22);
and
- (e) reassembling the cap (116) to the housing (72);
and
- (f) refurbishing the memory device (26) for providing enabling information to the printing system (10) to enable the printing system (10) to operate."

V. Claim 1 according to the 1st auxiliary request differs from claim 1 according to the main request in that the following text is added at the end of the claim:

"wherein the ink container (12) includes a cavity (80) within cap (116), the cavity (80) having two opposing side walls (79), the memory device (26) having contacts (24) mounted to one of the opposing side walls (79) in the cavity (80)".

VI. Claim 1 according to the 2nd auxiliary request differs from claim 1 according to the 1st auxiliary request in that the following text is added at the end of the claim:

"and wherein step (f) comprises providing a plurality of contacts (24) bonded to one of the opposing side walls (79) in the cavity (80); and providing a source of signals (26) that is electrically coupled to the plurality of contacts (24), the source of signals (26) being indicative of an increased amount of ink in the reservoir (22), wherein the plurality of contacts (24) and the source of signals (26) are provided on a substrate (78), and wherein the step of providing said plurality of contacts (24) and said source of signals (26) comprises one of

- removing an original substrate (78), along with a memory device (26) and contacts (24) from the cavity (80) and adhesively bonding a new substrate (78) having a new source of signals (26) and contacts (24) in the same place that held the original substrate (78), memory device (26) and contacts (24), or
- bonding a new substrate (78), along with a new source of signals (26) and contacts (24) on top of the original memory device (26) and contacts (24)."

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

- A: "Recharger", pages 22, 23, 34 and 103 of March 1997, page 84 of May 1997, pages 86, 129, 157 and 214 of June 1997;
- E1: Recycling instructions TEC LB-1305 OPC cartridge, 1993;
- D1: DE-A-34 05 164;
- D3: EP-A-0 778 144;
- D4: EP-A-0 789 322.

Appellant I filed a new document with its statement of the grounds of appeal:

D5: US-A-5,519,418.

VIII. In a communication annexed to the summons to oral proceedings dated 22 October 2014, the provisional opinion of the board concerning the issue of inventive step with respect of the subject-matter of claim 1 as granted was notified to the parties as follows:

"6.2 Claim 1 - inventive step (article 56 EPC 1973)

6.2.1 Method claim 1 contains three groups of method steps:

- i) steps (a) and (e): disassembling and reassembling a cap;
- ii) steps (b) to (d): refilling ink;
- iii) step (f) refurbishing a memory device.

These three groups of method steps are not related to each other in any way and may be carried out separately and in any order. Their juxtaposition does not contribute to inventive step, because the skilled person will carry out the steps in each of groups i) to iii) as the need arises.

In particular, although the preamble of claim 1 explains that the cap "*encloses the fill port*", this fill port receives no further mention in any of the method steps (b) to (d) or (f). Thus, the steps of group i) are not linked in any way to the steps of groups ii) and iii).

6.2.2 Steps (a) and (e)

The skilled person is aware of the fact that, should access to a particular part of a device be obstructed by an enclosure, then it is necessary to remove the enclosure to gain the required access. In addition, once the intervention is completed, the enclosure will have to be put back into its original position to restore the device to its original configuration relative to the enclosure (for an illustration see document D3, column 9, lines 16 to 20).

Steps (a) ("*disabling the structural support provided by the adhesive film (118) and separating the cap (116) from the housing (72)*") and (e) ("*reassembling the cap (116) to the housing (72)*") do not appear to go beyond spelling out this basic knowledge in the context of a cap retained by an adhesive film while not achieving any result other than that which may be directly anticipated for each step. Thus, no contribution to inventive step can be seen to arise from steps (a) or (e).

6.2.3 Steps (b) to (d)

Refurbishing an ink container whose ink supply has been exhausted, in terms of refilling the ink container with ink, would appear to be obvious to the skilled person.

Furthermore, refilling an ink container with ink would appear to be impossible without a step such as step (b) ("*refilling the ink reservoir (22) through the opening*") which does not appear to go beyond stating the inevitable, because in the absence of an opening, ink would not be able to be made to enter the ink reservoir. The need to

provide such an opening and subsequently closing it to prevent loss of ink follows on from there. Steps (b) to (d) do not achieve any result other than that which may be directly anticipated for each of these steps (again this is illustrated in document D3, column 15, lines 45 to 55).

The board notes that, according to the description of the patent in suit, step (b) ("*creating an opening in the ink reservoir (22)*") is understood to include providing access via an already existing opening which was closed with a plug (column 9, lines 30 to 33; column 10, lines 5 to 15). In this case, simply unplugging an existing ink fill port for the purpose of filling ink into the reservoir and subsequently sealing the port, would also appear to be obvious to the skilled person. None of these steps achieves a result other than that which may be directly anticipated (this is also illustrated in document D3, column 16, lines 24 to 32).

Thus, no contribution to inventive step can be seen to arise from steps (b) or (d).

6.2.4 Step (f)

The skilled person is aware of ink containers for printing system which comprise a memory device for providing enabling information to the printing system to enable the printing system to operate (e.g. document D4, column 7, lines 19 to 30; column 8, lines 5 to 13 and 39 to 50).

Merely replenishing the ink does not result in a usable ink container, insofar as the memory device

of an exhausted ink container no longer provides enabling information to the printing system to enable the printing system to operate. In this case, it would appear to be obvious to the skilled person that it is also necessary to refurbish the memory device for it to again provide the enabling information to the printing system to enable the printing system to operate.

Refurbishing a memory device for it to again provide the enabling information to the printing system to enable the printing system to operate would appear to be a known measure for the skilled person (document E1, page 2, left hand column, "NOTE" and page "GORESET", step 10; document D5, column 5, lines 63 to 65).

6.2.5 Thus, no contribution to inventive step can be seen to arise from juxtaposing step (f) and steps (b) to (d), because it follows as direct consequence from the ink container comprising a memory device for providing enabling information to the printing system to enable the printing system to operate.

Thus, the subject-matter of claim 1 does not appear to involve an inventive step."

In the same communication, the following provisional opinion of the board concerning the subject-matter of claim 1 now forming part of the 2nd auxiliary request was notified to the parties in the context of what was then the 4th auxiliary request in point 10.1 (itself building upon to what was then the 3rd auxiliary request in points 9.1.2 and 9.1.3):

"9.1.2 Meaning of features added at the end of claim 1

Since the claim already recites that there is a *"memory device (26) having contacts (24) ~~is~~ mounted to one of the opposing side walls (79) in the cavity (80) ..."*, there remains nothing to do for the step *"providing a plurality of contacts (24) bonded to one of the opposing side walls (79) in the cavity (80)"*. This step thus includes the possibility of not doing anything.

Since the memory device already provides a source of signals (26) that is electrically coupled to the plurality of contacts (24), there remains nothing to do for the method step of *"providing a source of signals (26) that is electrically coupled to the plurality of contacts (24)"*. Thus, this step again includes the possibility of not doing anything.

The expression *"the source of signals (26) being indicative of an increased amount of ink in the reservoir (22)"* does not make sense as such: Indicative to whom? Increased with respect to what?

At best, a source of signals may provide a signal which the printing device may treat as an amount of ink in the reservoir. However, this depends only on the programming inside the printing system and thus cannot characterise a *"method for refilling an ink container"*.

When the *"source of signals"* is the *"memory device (26)"* and assuming that, insofar as the printing system is concerned, data stored therein concerns

the "*amount of ink*", then the feature "*the source of signals (26) being indicative of an increased amount of ink in the reservoir (22)*" only involves writing appropriate data into the "*memory device (26)*".

9.1.3 Inventive step

The person skilled in the art would not appear to require an inventive step to rewrite the "*amount of ink*" data in a memory device 4 of an ink cartridge 2 during recycling, because document D5 already discloses that "*the remains of ink or toner in the container of the cartridge 2, is written in the non-volatile memory 4*" (column 5, lines 22 to 27) and suggests that "*when the cartridges 2 are recycled after use, the information in a particular cartridge 2 can be rewritten freely*" (column 5, lines 62 to 64)";

and

"10.1 [...] The text added at the end of claim 1 concerns two alternatives which appear to be respectively based on the embodiments of paragraphs [0046] and [0048] of the description of the application as published.

Although document D4 discloses a substrate 74 with a memory chip 76 and a contact land 72 (column 7, lines 24 to 28, figures 4 and 4a), there are no indications in that document concerning a possible refurbishment of such a structure.

However, the skilled person will necessarily be aware of the general principle of replacing

components which have come to the end of their useful life by corresponding fresh components as part of a refurbishment process. It is not clear why applying this known principle to a substrate with contacts and a memory device would qualify for an inventive step".

IX. In the written procedure, appellant I argued essentially as follows:

Admissibility of late filed document D5

Document D5 is filed in reaction to modified claims filed during the opposition proceedings and to support an argument advanced during the opposition proceedings, namely that the skilled person knows that recycling an ink container with a memory device 4 involves rewriting said memory device (column 5, line 47 onwards). Thus, document D5 discloses relevant state of the art and does not introduce complex new subject-matter. Document D5 should therefore be admitted to the proceedings.

Inventive step of method claim 1

As was pointed out in the third party observation under Article 115 EPC, a method of refilling an ink container which involves dismantling, creating an opening, refilling through the hole, resealing the opening, reassembly of the cap and refurbishing of the memory device are method steps which have been practiced by remanufacturers and refillers many years prior to the patent in suit. Furthermore, document D5 explicitly discloses that recycling an ink container with a memory device 4 involves rewriting said memory device (column 5, line 47 onwards). In addition, a memory

device may also be refurbished by simply replacing it by a one which operates in the required manner. Apparatus features of the ink container cannot contribute towards an inventive step of a method claim for refilling it. The subject-matter of claim 1 does not involve an inventive step.

- X. In the written procedure, appellant II argued essentially as follows:

Admissibility of late filed document D5

The Opponent does not give any explanation why document D5 was not filed during the opposition procedure. The references (column 5, lines 62 to 65) to "reusing" and "rewriting of a cartridge" are considered obscure, because it is not clear whether "reusing" refers to refilling an empty ink container or using a used but not empty ink container in another printer requiring some sort of rewriting of the memory. In addition, the passage column 7, lines 18 to 24, conveys the impression that the cartridge is a one-way product, contrary to the concept of refilling and refurbishing the source of signals according to the present invention. Hence, document D5 should not be considered prima facie relevant and therefore should not be admitted to the proceedings.

Inventive step of method claim 1

The board has not specified which prior art is considered as the closest prior art in the provisional opinion set out in the communication annexed to the summons to oral proceedings. Furthermore, the board has not duly considered the structural features contained in claim 1, because although claim 1 is directed to a

method, the device features referred to in the claim must be considered when assessing inventive step. There *"is no legal basis to simply disregard features of a device used in a method when assessing inventive step. It is established practice at the EPO that if a product is new and inventive, then the use of the product – and refurbishing must be considered as a specific way of using an ink container – is automatically new and inventive as well, as it must be (see also Guidelines G-VII 13, which although not binding for the Board, still reflects the practice of the EPO and the Case Law of the Boards of Appeal)"*.

The device features in method claim 1 (main request) are however part of the invention and are intimately linked with the combined refilling and memory refurbishment method and render the subject-matter of method claim 1 according to the main request inventive.

Similarly, the further structural limitations of the device render the subject-matter of method claim 1 according to the 1st auxiliary request inventive.

The same also applies with respect to the additional structural limitations of the device added to the subject-matter of method claim 1 according to the 2nd auxiliary request. Furthermore, the memory device and the contacts have not necessarily come to the end of their useful life. Instead the information in the memory device is no longer appropriate once the ink reservoir has been refilled. Documents E1 and D5 only disclose refurbishing in terms of reprogramming the memory device which requires appropriate equipment. Replacing the memory device requires fewer skills and less equipment. The subject-matter of claim 1 according to the 2nd auxiliary request is therefore inventive.

Reasons for the Decision

1. *Admissibility of late filed document D5*

Document D5 discloses an ink cartridge 2 with a non-volatile memory 4 which can be rewritten freely when the cartridge is "*recycled after use*" (column 5, lines 47 to 55 and 62 to 65). Furthermore, the skilled person knows that recycling an ink cartridge involves refilling the ink container (see for example the magazine extracts A).

The passage column 7, lines 18 to 24 cited by appellant II only refers to "*when a cartridge is discarded*", but is silent on whether this occurs after first use or after a certain number of recycling cycles. There is thus no basis for considering that the cartridge discussed in document D5 is a one-way product.

Thus, document D5 discloses relevant state of the art and does not introduce complex new subject-matter as it only provides evidence for an argument already advanced by appellant I during the opposition proceedings.

Appellant I argues that document D5 was filed in reaction to amendments made during the opposition proceedings whereas appellant II argues that the amendments were not of such nature as to warrant the introduction of document D5. However, the board considers that, in view of its substantive contribution being both relevant and of low complexity, document D5 should not be excluded.

In consequence, the board uses its discretion under Article 13(1) RPBA to admit late filed document D5 into the proceedings.

2. *Claim 1 - Inventive step*

All requests

2.1 In its fax of 6 February 2015, appellant II provided comments in response to the boards provisional opinion to the effect that:

- the board has not specified which prior art is considered as the closest prior art;
- the board has not "*duly considered*" the structural features contained in claim 1, because although claim 1 is directed to a method, the device features referred to in the claim "*must*" be considered when assessing inventive step. Appellant II considers that there "*is no legal basis to simply disregard features of a device used in a method when assessing inventive step. It is established practice at the EPO that if a product is new and inventive, then the use of the product – and refurbishing must be considered as a specific way of using an ink container – is automatically new and inventive as well, as it must be (see also Guidelines G-VII 13, which although not binding for the Board, still reflects the practice of the EPO and the Case Law of the Boards of Appeal)*".

2.2 The above points are respectively addressed as follows:

2.2.1 In view of the generic nature of the claimed subject-matter, the closest prior art consists of the common general knowledge that the person skilled in the art of

refurbishing ink cartridges is familiar with the refilling ink containers for a printing system. Although, this has not been challenged by the parties, evidence therefore is provided by the magazine extracts A. The associated objective problem is to specify the required method steps.

In addition, as pointed out in the board's provisional opinion annexed to the summons to oral proceedings, further general knowledge of this skilled person is illustrated in document D3, (see column 9, lines 16 to 20 for the need to remove and put back an enclosure for access and column 15, lines 45 to 55 for the need of an opening for inserting ink and sealing it up afterwards) and document D4 (see column 7, lines 19 to 30; column 8, lines 5 to 13 and 39 to 50 for ink containers with a memory device providing enabling information to the printing system).

2.2.2 The only legal basis appellant II has invoked for its position is the case of a claim for a method of using an apparatus being carried by the inventive step of the corresponding apparatus claim. Appellant II's position concerning the legal basis is flawed, because in the present case where method claim 1 does not refer to the use of an apparatus set out in a separate apparatus claim. Moreover, the board would be required to speculate as to the actual wording (Article 84 EPC 1973, first sentence) of a hypothetical apparatus claim consisting only of apparatus features mentioned in method claim 1 and then, of its own motion, proceed to evaluate the patentability of this speculative apparatus claim. Such scenario is contrary to the principle of party disposition, because the board would effectively be examining (a speculative wording for) an independent apparatus claim which has not as such

actually been requested by appellant II. It is also contrary to the principle of impartiality, since the board effectively would have to (speculatively) take over appellant II's task of devising a wording for the missing apparatus claim, thereby taking over the role of appellant II to the detriment of appellant I. Furthermore, appellant II's proposed approach confuses method claims (to be characterised by technical method steps) and apparatus claims (to be characterised by technical apparatus features) into a claim of unclear category in which the method steps are supposedly rendered inventive by apparatus features. Such a claim of unclear category is contrary to the clarity requirement of Article 84 EPC 1973 and thus could not have been granted.

- 2.2.3 In the present case claim 1 (of all requests) is only cast as a method claim as such and is not cast as a method of using an apparatus claimed in a separate apparatus claim. Any apparatus features appearing in such a method claim merely set out a given technical context in which the method steps are to be carried out without themselves contributing as such to the patentability of the claimed method steps. In consequence, appellant II's arguments concerning any potential contribution of any apparatus features mentioned in method claim 1 towards the inventiveness of the method steps of method claim 1 cannot be taken into consideration. A method claim such as claim 1 (all requests) can only be evaluated for patentability on the basis of its technical method steps.

2.3 Claim 1 (main request)

Claim 1 according to the main request is identical to claim 1 as granted. The technical method steps of

claim 1 were already considered in the board's provisional opinion set out in the communication annexed to the summons to oral proceedings (point 6.2).

Having re-considered the reasons which were advanced in the communication annexed to the summons to oral proceedings in the light of the above additional arguments of appellant II, the board sees no reason to depart from them. By not attending oral proceedings, appellant II has not availed himself of the opportunity to orally present his case.

Consequently, the subject-matter of claim 1 according to the main request is not based on an inventive step (Article 100(a) EPC 1973 in combination with Article 56 EPC 1973).

2.4 Claim 1 (1st auxiliary request)

Claim 1 according to the 1st auxiliary request differs from claim 1 according to the main request in that text based on originally filed claim 4 is added at the end of the claim ("*wherein the ink container (12) includes a cavity (80) within cap (116), the cavity (80) having two opposing side walls (79), the memory device (26) having contacts (24) mounted to one of the opposing side walls (79) in the cavity (80)*").

The added features only concern additional apparatus features and thus set out the technical context in greater detail in which the method steps are to be carried out without themselves contributing as such to the patentability of the claimed method steps.

For the reasons set out in points 2.2.2 and 2.2.3 above, the alleged contribution of any apparatus

features mentioned in method claim 1 towards the inventiveness of the method steps of method claim 1 cannot be taken into consideration.

Thus, insofar as the technical method steps are concerned, the subject-matter of method claim 1 according to the 1st auxiliary request does not go beyond the technical method steps out in method claim 1 according to the main request. In consequence, method claim 1 according to the 1st auxiliary request lacks an inventive step for the same reasons as claim 1 according to the main request (Article 100(a) EPC 1973 in combination with Article 56 EPC 1973, see point 2.3 above).

2.5 Claim 1 (2nd auxiliary request)

2.5.1 Claim 1 according to the 2nd auxiliary request differs from claim 1 according to the 1st auxiliary request in that text based on claim 7 as filed and paragraphs [0046] and [0048] of the application as published is added at the end of the claim.

The technical method steps of this claim were already considered in the board's observations in the communication annexed to the summons to oral proceedings in the context of claim 1 of what was then the 4th auxiliary request (Points 9.1.2, 9.1.3 and 10.1).

2.5.2 In its fax of 6 February 2015, appellant II argued in response to the boards provisional opinion to the effect that:

- the memory device and the contacts have not necessarily come to the end of their useful life. Instead the information in the memory device is no

longer appropriate once the ink reservoir has been refilled; and

- document E1 and D5 only disclose refurbishing in terms of reprogramming the memory device which required appropriate equipment. Replacing the memory device requires less skills and equipment.

2.5.3 The above points are respectively addressed as follows:

- The argument of appellant II that the memory device may not have reached the end of its useful life, depends on the point of view: From the point of view of the original manufacturer of an ink container intended for single use, once the ink supply is exhausted, the whole ink container, and thus by implication any included memory device, has reached the end of its useful life. From the point of view of the recycler, such an ink container is the starting point for refurbishment. If the memory device of such an ink container can be reprogrammed, then the memory device has not reached the end of its useful life. If it cannot, then it has.

Independently therefrom, the skilled person will necessarily also consider replacing components which, for whatever reason, are "*no longer appropriate*" (for their intended use) by corresponding fresh components as part of a refurbishment process. Thus the argument advanced by the board in its provisional opinion expressed in the communication annexed to the summons still stands.

- The fact that documents E1 and D5 disclose other forms of refurbishing in terms of reprogramming a (suitable) memory device does not detract from the

fact that the skilled person will necessarily be aware of the general principle of replacing components which are "*no longer appropriate*" for their intended use (or which have come to the end of their useful life) by corresponding fresh components as part of a refurbishment process. In particular, the existence of such further alternatives does not invalidate the argument advanced by the board in its provisional opinion expressed in the communication annexed to the summons. Appellant II has not argued that the skilled person is not familiar with this general principle or why applying it to a substrate with contacts and a memory device would qualify for an inventive step.

- 2.5.4 Having re-considered the reasons which were advanced in the communication annexed to the summons to oral proceedings in the light of the above additional arguments of appellant II, the board sees no reason to depart from them. By not attending oral proceedings, appellant II has not availed himself of the opportunity to orally present his case.

Consequently, the subject-matter of claim 1 according to the 2nd auxiliary request is not based on an inventive step (Article 100(a) EPC 1973 in combination with Article 56 EPC 1973).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.
3. The appeal of appellant II is dismissed.

The Registrar:

The Chairman:



D. Meyfarth

M. Poock

Decision electronically authenticated