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D E C I S I O N
of 22 September 2003

Case Number: T 0274/01 - 3.2.5

Application Number: 92307270.6

Publication Number: 0553535

IPC: B41J 2/175

Language of the proceedings: EN

Title of invention:

Ink tank cartridge and container therefor

Patentee:

SEIKO EPSON CORPORATION

Opponent:

PELIKAN HARDCOPY DEUTSCHLAND GMBH

Headword:

-

Relevant legal provisions:

EPC Art. 56

Keyword:

"Inventive step (yes)"

"Withdrawal of previous requests after the Board announced its opinion that these requests were not allowable - allowed"

Decisions cited:

T 0966/99

Catchword:

-



Case Number: T 0274/01 - 3.2.5

D E C I S I O N
of the Technical Board of Appeal 3.2.5
of 22 September 2003

Appellant: SEIKO EPSON CORPORATION
(Proprietor of the patent) 4-1, Nishishinjuku 2-chome
Shinjuku-ku
Tokyo-to (JP)

Representative: Sturt, Clifford Mark
Miller Sturt Kenyon
9 John Street
London WC1N 2ES (GB)

Respondent: PELIKAN HARDCOPY DEUTSCHLAND GMBH
(Opponent) Pelikanstraße 15
D-30177 Hannover (DE)

Representative: Gesthuysen, von Rohr & Eggert
Patentanwälte
Postfach 10 13 54
D-45013 Essen (DE)

Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 6 February 2001
revoking European patent No. 0553535 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: W. Moser
Members: W. R. Zellhuber
H. M. Schram

Summary of Facts and Submissions

- I. The appellant (patent proprietor) lodged an appeal against the decision of the Opposition Division revoking the European patent No. 0 553 535.

An opposition was filed against the patent as a whole and based on Article 100(a) EPC (lack of novelty, Article 54 EPC, and lack of inventive step, Article 56 EPC). The Opposition Division held that the subject-matter of claim 1 of the patent in suit as granted did not involve an inventive step.

- II. Oral proceedings were held before the Board of Appeal on 22 September 2003.

- III. The appellant initially requested that the decision under appeal be set aside and that the patent be maintained on the basis of the following documents:

- (a) main request: patent in suit as granted; or
- (b) first auxiliary request: claim 1 filed as first auxiliary request on 19 August 2003 and claims 2 to 21 filed as first auxiliary request on 8 September 2003; or
- (c) second auxiliary request: claim 1 filed as second auxiliary request on 19 August 2003 and claims 2 to 22 filed as second auxiliary request on 8 September 2003; or
- (d) third auxiliary request: claim 1 filed as third auxiliary request on 19 August 2003 and claims 2

to 20 filed as third auxiliary request on
8 September 2003; or

- (e) fourth auxiliary request: claim 1 filed as fourth auxiliary request on 19 August 2003 and claims 2 to 21 filed as fourth auxiliary request on 8 September 2003.

In the course of the oral proceedings, the subject-matter of claim 1 of the main request and of the first, second, third and fourth auxiliary requests have been discussed. After adjournments for deliberation, the Board announced that it had come to the conclusion that the subject-matter of claim 1 of the main request and of the first and third auxiliary requests did not involve an inventive step, that the subject-matter of claim 1 of the second auxiliary request did not meet the requirements of Article 123(2) EPC, and that the subject-matter of claim 1 of the fourth auxiliary request met the requirements of the EPC. Subsequently, as a final request at the end of the oral proceedings, the appellant withdrew the main request and the first, second and third auxiliary requests, and submitted claims 1 to 21, which were identical with the claims of the fourth auxiliary request, and pages 2 to 7 of the description as sole request.

The respondent (opponent) requested that the appeal be dismissed. He further requested that the final request of the appellant be rejected.

IV. Claim 1 of the sole request reads as follows:

"An ink tank cartridge for an ink-jet type recording apparatus, the cartridge being removably mounted onto an ink supply needle (14,90) having through holes (94) of the recording apparatus, the cartridge comprising:

a housing (50);

an ink supply port (53,71) projecting from a bottom surface of said housing inwardly;

a porous member (64) accommodated in said housing for being impregnated with an ink;

said porous member resiliently abutting against said ink supply port through a filter (55) and being compressed at a region in the vicinity of said ink supply port;

means (60,77) for sealing an end opening of said ink supply port and for being penetrated by the ink supply needle;

packing means comprising one or more resilient rings (57,73) disposed in the ink supply port between the filter and the sealing means; and

stopping means (58, 74) provided between said packing means and said sealing means for stopping broken pieces of said sealing means entering further into the ink supply port when said ink supply needle penetrates said sealing means."

V. In the course of the appeal procedure, the following documents have, *inter alia*, been referred to:

D1: EP-A 0 408 241

D2: DE-A 30 39 165

D3: US-A 4,771,295

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

The withdrawal of all requests preceding the fourth auxiliary request of the appellant should be allowed. The Board announced his opinion with regard to these requests but had not yet decided when the final request of the appellant had been submitted.

As far as the subject-matter of the sole request was concerned, the cited documents neither disclosed nor suggested an ink tank cartridge comprising stopping means provided between the packing means and the sealing means for stopping broken pieces of the sealing means entering further into the ink supply port when the ink supply needle penetrated the sealing means.

In its Figure 8, document D2 referred to an arrangement comprising a packing member (ring shaped bung 55) and sealing means (foil 56) which closed the external opening of the ring.

However, document D2 was silent about the problem that particles of the sealing means might enter the ink supply port and, accordingly, was silent about the solution described in claim 1 of the sole request, ie. providing stopping means between the packing means and the sealing means.

Figure 10-A4 of the patent in suit showed an embodiment wherein the stopping means and the packing means were formed unitarily with a groove separating the two means, each having its respective purpose. There was not any

similarity with the arrangement shown in Figure 8 of document D2.

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

The final request of the appellant, implying the withdrawal of the main request and the first, second and third auxiliary requests, should, at that stage of the procedure, not be admitted, since the Board had already decided on the subject-matter of these requests. The decision of the Board should state the reasons why these requests were not allowable. This was important for the respondent in view of pending or later infringement proceedings.

The Board had found that the subject-matter of claim 1 of the main request and of claim 1 of the first auxiliary request did not involve an inventive step with regard to the prior art as disclosed in documents D1, D2 and D3. Claim 1 of the sole request additionally comprised the feature of stopping means provided between the packing means and the sealing means.

Document D2 showed in Figure 8 an element 55 comprising a first part outside of the housing 35 and a second part inside of it. This arrangement seemed to be very similar to that shown in Figure 10-A4 of the patent in suit. These parts could thus respectively be regarded as representing stopping means and packing means as claimed in claim 1 of the sole request.

Consequently, claim 1 of the sole request did not involve an inventive step with regard to the prior art as disclosed in documents D1, D2 and D3.

Reasons for the Decision

1. *Procedural matter*

Article 113(2) EPC requires the Board to consider and decide upon the patent in suit only in the text submitted to it, or agreed, by the appellant (as the patent proprietor). Consequently, if the appellant (as the patent proprietor) withdraws a request for maintenance of the patent in suit on the basis of a set of claims, there is no longer a procedural basis for the Board to include reasons in the decision concerning the withdrawn request (cf. decision T 966/99 of 3 December 2002, point 7.1 of the Reasons). This holds true irrespective of whether or not the Board gave an opinion concerning allowability of the request prior to its withdrawal. In the Board's judgement, neither the interest of the respondent, nor the public interest could justify the inclusion in the final decision of the reasons for the opinion. Hence, in the present case, only issues pertaining to the sole request submitted by the appellant at the end of the oral proceedings are to be decided by the Board. It follows that the request of the respondent concerning non-admittance into the appeal proceedings of the sole request is refused.

2. *Sole request*

2.1 Amendments (Article 123 EPC)

2.1.1 The subject-matter of claim 1 of the sole request is disclosed in the printed version of the application as filed in claims 1 to 4 in connection with page 8, lines 1 to 4 and Figures 9 to 13. The subject-matter of dependent claims 2 to 21 is also disclosed in the application as filed, cf. in particular the claims and the embodiments shown in Figures 9 to 13 and described on page 7, line 24 to page 9, line 26 (printed version of the application as filed).

The description was amended to bring it in line with the subject-matter of independent claim 1. The drawings correspond to the drawings of the application as filed.

In the Board's judgement, the amendments are in accordance with the requirements of Article 123(2) EPC.

2.1.2 Furthermore, the scope of protection conferred by independent claim 1 is more limited than that of claim 1 of the patent in suit as granted.

The patent in suit as amended thus also meets the requirements of Article 123(3) EPC.

2.2 Novelty (Article 54 EPC)

None of the cited documents discloses an ink tank cartridge comprising in combination the features of claim 1 of the sole request.

Novelty, in fact, was not in dispute.

2.3 Inventive step (Article 56 EPC)

2.3.1 Document D1 is considered to represent the closest prior art. It discloses an ink tank cartridge 32 for an ink-jet type recording apparatus, wherein the cartridge is removably mounted onto a print head comprising an ink supply needle having a through hole and a pointed end 37 (tubular element, needle-type conduit 36). The cartridge comprises a housing, an ink supply port 46 projecting from a bottom surface of the housing inwardly, a porous member 52 accommodated in the housing for being impregnated with an ink, and means (rubber membrane 50) for sealing an end opening of the ink supply port and for being penetrated by the ink supply needle, cf. abstract in connection with Figure 1 and column 2, lines 36 to 40.

2.3.2 The problem of using an ink supply needle which must be suitable for penetrating the rubber membrane is that "a person must operate the sharp needle very carefully or (s)he may be injured by the tip of the needle", cf. column 1, lines 16 to 31 of the patent in suit.

Accordingly, an object of the patent in suit "... is to provide an ink tank cartridge ... which does not require any sharp needle and capable of preventing air or gas from entering an ink supply path of the recording apparatus body ... and keeping a high air tightness between the ink supply needle and the ink tank", cf. column 2, lines 17 to 25 of the patent in suit.

2.3.3 As already pointed out in the patent in suit, cf. column 1, lines 32 to 40, the problem of mounting an ink cartridge onto a sharp needle had already been overcome by an arrangement "in which a packing member

having a through hole is previously provided at an end opening of an ink supply port and the through hole of the packing member is sealed by a seal member. According to this arrangement, an ink supply needle having a tip which is not so sharp can be employed."

Document D2 shows such an arrangement (cf. page 18, last paragraph and Figure 8). Providing a ring shaped bung 55 and sealing the cartridge before first use by means of a foil 56 which closes the external opening on the ring allows the use of a blunt ink supply needle (cf. Figure 8) instead of a needle tapered to a point (cf. Figure 7).

However, document D2 does not refer to the problem that, when the ink supply needle penetrates the sealing foil 56, the sealing foil may partially go into the ink supply port with the ink supply needle. Accordingly, document D2 does not suggest providing means for stopping broken pieces of the sealing means entering further into the ink supply port.

With the solution given in claim 1 of the sole request, "... broken pieces 60a of the sealing member 60 are stopped to go further with the needle by the sealing member stopping member 58 ... so that the broken pieces 60a do not reach the packing member 57. Accordingly, even if gaps 66 are formed between the needle 14 and the sealing member stopping member 58, the liquid seal can be maintained owing to the packing member 57 and, therefore, the ink is prevented from leaking out", cf. column 9, line 54 to column 10, line 7 of the patent in suit.

In contrast to the embodiment shown in Figure 8 of document D2, which relates to a rubber bung having a through hole uniformly formed over the whole length, the embodiment of Figure 10-A4 of the patent in suit relates to an arrangement wherein the through hole is provided with a groove thus forming two separate elements, ie. stopping means and packing means. Consequently, although these means are formed unitarily, there is no similarity with the arrangement shown in Figure 8 of document D2.

2.3.4 Document D3 relates to an integrally formed printing and ink supply unit. As far as the problem of removably connecting an ink cartridge to a print head is concerned, a person skilled in the art would thus not consider document D3.

2.4 To sum up, the subject-matter of claim 1 of the sole request is not suggested in the cited documents, and, accordingly, involves an inventive step within the meaning of Article 56 EPC. The subject-matter of claims 2 to 21, which are appendant to this claim 1, similarly involves an inventive step.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the first instance with the order to maintain the patent on the basis of the following documents:
 - (a) claims 1 to 21 and (b) description, pages 2 to 7, submitted as sole request during oral proceedings;
and

 - (c) drawings, pages 13 to 18 as granted.

The Registrar:

The Chairman:

M. Dainese

W. Moser