Internal distribution code:
(A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

Datasheet for the decision of 14 February 2012

Case Number: T 2443/09 - 3.2.05

Application Number: 04779378.1

Publication Number: 1651444

IPC: B41J2/175

Language of the proceedings: EN

Title of invention:
PRINTING-FLUID CONTAINER

Applicant:
HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.

Opponent:
S. O. S electronic s.r.o.

Headword:

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step (main request - yes)

Decisions cited:

Catchword:

Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T2443/09 - 3.2.05

D E C I S I O N
of the Technical Board of Appeal 3.2.05
of 14 February 2012

Appellant: (Patent Proprietor)	HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P. 20555 S.H. 249 Houston, TX 77070 (ETATS-UNIS D'AMERIQUE)
Representative:	Lawman, Matthew John Mitchell EIP Fairfax House 15 Fulwood Place London, WC1V 6HU (ROYAUME UNI)
Respondent: (Opponent)	S. O. S. electronic s.r.o. Zadielsca 12 04011 Kosice (REPUBLIQUE SLOVAQUE)
Representative:	Popp, Eugen Meissner, Bolte & Partner GbR Widenmayerstrasse 48 80538 München (ALLEMAGNE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted 23 October 2009 revoking European patent No. 1651444 pursuant to Article 101(3)(b) EPC.**

Composition of the Board:

Chairman: H. Schram
Members: S. Bridge
M. J. Vogel

Summary of Facts and Submissions

I. The appellant (patent proprietor) lodged an appeal against the decision of the Opposition Division, posted on 23 October 2009, by which European patent No. 1 651 444 was revoked.

The Opposition Division held that the grounds for opposition under Article 100(a) EPC (lack of inventive step, Article 56 EPC) prejudiced the maintenance of the patent as granted.

II. Oral proceedings were held before the Board of Appeal on 14 February 2012. On behalf of the respondent (opponent) was present no one.

III. The appellant requested that the decision under appeal be set aside and that the patent be maintained as granted (main request), or, as an auxiliary measure, on the basis of any one of the sets of claims filed as first to fifth auxiliary request on 23 February 2010, and filed as sixth to eleventh auxiliary request on 13 January 2012.

The respondent requested that the appeal be dismissed.

IV. Claim 1 of the main request (claim 1 as granted) reads as follows:

"1. A printing-fluid container (300) configured for insertion into a printing-fluid container bay (330), the container comprising a reservoir having a mating surface in which are located:
(a) a printing-fluid outlet (314) at one end of the leading surface;

(b) an air inlet (312) at an opposite end of the leading surface;
(c) a first recessed alignment pocket (30) located adjacent the air-inlet (312) and between the printing-fluid outlet (314) and the air inlet (312); and
(d) a second recessed alignment pocket (306) located adjacent the printing-fluid outlet (314) and between the air inlet (312) and the printing-fluid outlet (314)."

V. The following document is referred to in the present decision:

E2: US-B-6,471,333

VI. The arguments of the appellant in the written and oral proceedings can be summarised as follows:

The present invention concerns a printing-fluid container comprising a printing-fluid outlet and an air inlet for insertion into a printing-fluid container bay.

The patent seeks to provide a printing-fluid container having improved alignment of various aspects of the container such as the printing-fluid outlet and the air inlet with the corresponding aspects of the printing-fluid container bay when inserted therein.

This problem is solved by the printing-fluid container according to claim 1 of the main request. In particular, first and second recessed alignment pockets are provided on the mating surface in which the printing-fluid outlet and air inlet are also located, in a configuration defined in claim 1, see features

labelled (a) to (d). Positioning the alignment pockets adjacent and between the fluid interfaces decreases the effect of any tolerances that exists in the alignment interface (cf. column 23, lines 2 to 6, of the patent in suit). Furthermore, recessed alignment pockets advantageously increase the robustness of the printing-fluid container as they avoid the need for alignment protrusions which are more prone to damage (cf. paragraphs [0030], [0043] of patent in suit).

Document E2 represents the closest prior art. This document discloses a container which does not have alignment pockets in the leading surface: the T-slot keying functions 360A, 360B in the leading surface of the ink-container and mating T-slot functions 460A, 460B of the receiving station 100 are not capable of performing any alignment, because T-slot keying functions are not deeper than the fluid interfaces (figure 10). Instead, the ink-container according to document E2 has external protruding keying and guide features 340, 342 on its side surfaces for running in guide slots 440 of the container bay for the purpose of alignment, see column 5, lines 42 to 47, and figure 8.

The skilled person would not consider placing alignment pockets in the leading surface of a printing-fluid container, because pockets of sufficient depth to be suitable for alignment encroach on, and thereby reduce, the inner volume available for storing the printing-fluid inside the container.

The ink container disclosed in document E2 contains a collapsible ink reservoir which requires a central ink outlet on the leading surface. The skilled person would thus not consider moving the ink outlet to an end of the leading surface. Furthermore, there is no

motivation for the skilled person to separate the air and ink interfaces and place the alignment pockets in between.

Thus, the subject-matter of claim 1 of the main request involves an inventive step.

VII. In the written procedure, the respondent argued essentially as follows:

Claim 1 as granted (main request) concerns an arrangement of features on a printing-fluid container. This arrangement of features on the printing-fluid container does not solve an identifiable technical problem and none is explicitly set out in the patent in suit. This arrangement must therefore be considered as arbitrary and only motivated by the commercial wish to prevent competing printing-fluid containers from being used with a given printer. Thus, the subject-matter of claim 1 as granted (main request) does not present a technical solution to a technical problem.

Document E2 addresses the same problem as the invention, namely the problem of ensuring that an ink container is inserted correctly into the printer for providing a proper fluid interconnection (column 2, lines 15 to 20). The solution involves a container with an "*air inlet 308*", an "*ink outlet 310*" located on an "*end cap 304*", to which "*keying features 340, 342*" for positioning and "*T-slot keying features 360A and 360B*" for identifying the proper ink-container are assigned (figure 4). Another solution, shown in figure 19, involves three "*T-slot features 680A, 680B and 680C*" which may be the only keying features used on the container and which therefore simultaneously ensure the positioning and identification of the container

(column 6, line 66 to column 7, line 3). The person skilled in the art thus derives from document E2 the use of alignment pockets which may be in addition to (figure 4), or combined with, keying pockets (figure 19) for solving the above problem. The particular arrangement of these features on the prior art container does not itself contribute to solving the above problem. The arrangement of these features is merely a question of design and thus falls within the scope of the normal practice of the person skilled in the art.

In particular, the subject-matter of claim 1 as granted (main request) only differs from the arrangement of document E2 in that recessed alignment pockets are positioned between, and respectively adjacent to, respective fluid interfaces themselves positioned at opposite ends of the leading surface. Insofar as a lateral insertion of the printing-fluid container is contemplated (patent in suit, figure 31), the skilled person seeking to arrange the printing-fluid outlet, the air inlet and the alignment pockets on a printing-fluid container would, using his common general knowledge, place the printing-fluid outlet as low as possible on the printing-fluid container (for ease of ink extraction in view of gravity) and the air inlet as high as possible on the printing-fluid container (to minimise the risk of ink leakage in view of gravity). Thus, the space available for the placement of alignment pockets on the printing-fluid container naturally lies between a thus positioned printing-fluid outlet and air inlet. The subject-matter of claim 1 as granted (main request) thus falls within the scope of the normal practice of the person skilled in the art.

Thus, the subject-matter of claim 1 as granted (main request) does not involve an inventive step.

Reasons for the Decision

1. Inventive step (Article 56 EPC)

1.1 Document E2

Document E2 represents the closest item of prior art. This document concerns properly installing a replaceable ink container into a corresponding receiving station of a printer (column 1, lines 6 to 8) and discloses an ink container (column 2, lines 25 to 27) including T-slot keying features 360A, 360B for accepting T-shaped mating features 460A, 460B of the ink container receiving station (column 4, line 66 to column 5, line 7, figure 10) and an ink outlet 310 and an air inlet 308 accessible on the leading surface of the container (column 4, lines 49 to 52).

Protrusions present on the side of the container form "*prior art keying and guide features 340, 342*" (column 5, lines 42 to 47, figures 8 to 10) and cooperate with guide slots 440 of the ink container receiving station to guide the container during installation to a mating position with respect to a floating interconnect portion 402 of the ink container receiving station (column 5, lines 42 to 47, figure 8).

The T-slots serve to uniquely identify different ink containers (column 6, lines 21 to 40). Although the protrusions 340, 342 on the sides of the container are considered as "*prior art keying and guide features*" in conjunction with the guide slots 440 (column 5,

lines 42 to 47), there is no indication in document E2, that the T-slots might be suitable for more than uniquely identifying different containers.

In addition, the ink container has a collapsible ink reservoir 110A which is *surrounded* by an air pressure chamber 110B for pressurising the collapsible reservoir to deliver pressurised ink (column 4, lines 5 to 12). The Board considers that the person skilled in the art is aware that a central printing-fluid outlet disclosed in figures 3, 4, 19 of document E2 is the consequence of the need for the air pressure chamber 110B to *surround* the collapsible ink reservoir 110A in order to ensure that, in use, substantially all the ink can be extracted from the collapsible ink reservoir.

1.2 The subject-matter of claim 1 of the patent as granted (main request) differs from the container known from document E2 in that the printing-fluid outlet and air inlet are disposed on opposite sides of the leading surface of the printing-fluid container (features (a) and (b) of claim 1 according to the main request) and in that a first and second "*recessed alignment pocket*" are located in the leading surface and in the respective positions of these pockets and fluid interfaces on the leading surface (features (c) and (d) of claim 1 according to the main request). The technical effect of this claimed arrangement is that it can improve alignment of the air-interface and ink-interface (column 23, lines 2 to 6).

1.3 The respondent's argument, that T-slot features of the container disclosed in document D2 also perform an alignment function, has no basis in document E2. Thus, the skilled person cannot derive from document E2 any

motivation for placing two "*recessed alignment pockets*" on leading surface of a printing-fluid container.

A printing-fluid outlet positioned at one end of the leading surface of the printing-fluid container would not allow the collapsible ink reservoir according to document D2 to be thus *surrounded* by the air pressure chamber so that this aspect of the printing-fluid container would require some re-design. Therefore, the skilled person, starting from the container disclosed in document E2, would be reluctant to reposition the printing-fluid outlet at an end of the leading surface without a good reason.

Thus, a printing-fluid container arrangement in which two recessed alignment pockets are positioned between, and respectively adjacent to, respective fluid interfaces themselves positioned at opposite ends of the leading surface is not rendered obvious by the teaching of document E2. In consequence, the subject-matter of claim 1 presents an inventive step with respect to the printing-fluid container disclosed in document E2 (Article 56 EPC).

1.4 None of the other documents cited by the respondent go beyond the disclosure of document E2.

1.5 The subject-matter of claim 1 according to the main request thus involves an inventive step (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 first instance with the order to maintain the patent as granted.

The Registrar: The Chairman:

D. Meyfarth H. Schram

Decision electronically authenticated