

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte STORRS T. HOEN
and
JONAH A. HARLEY

Appeal No. 2003-2114
Application No. 09/757,430

ON BRIEF

Before GARRIS, WARREN, and MOORE, *Administrative Patent Judges*.

MOORE, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the final rejection of claims 14, 17, 20, and 23.

REPRESENTATIVE CLAIM

The appellants have indicated (Brief, page 3) that, for the purposes of this appeal, claims 14, 19-20 and 22-23 stand together, and claim 17 stands alone. Consistent with this indication, we shall focus our analysis on claims 14 and 17, which are reproduced (with any preceding claims from which they depend) as follows.

12. An apparatus comprising:

a print cartridge adapted for use in an off-axis print system, the print cartridge including an ink supply input that provides ink from a remote ink supply;

an electronically-controlled valve coupling the ink supply input with a local ink container within the print cartridge;

an air escape path within the local ink container, the air escape path configured to gather air bubbles which gravitationally separate from the ink within the local ink container; and

an air blow-off vent selectively opened to operatively couple air in the air escape path with ambient atmosphere and selectively closed to decouple air in the air escape path from ambient atmosphere.

14. An apparatus according to claim 12, further comprising an ink filter and two air escape paths, one escape path operatively on each side of the ink filter, each escape path configured to gather air bubbles which gravitationally separate from the ink within the local ink container, wherein an air blow-off vent is selectively opened to operatively couple air in each of the two air escape paths with ambient atmosphere and selectively closed to decouple air in all air escape paths from ambient atmosphere.

17. An apparatus, comprising:

a print cartridge adapted for use in an off-axis print system, the print cartridge including an ink supply that provides ink from a remote ink supply;

a valve coupling the ink supply input with a local ink container within the print cartridge;

an air escape path within the local ink container, the air escape path configured to gather air bubbles which gravitationally separate from the ink within the local ink container; and

an air blow-off vent selectively opened to operatively couple air in the air escape path with ambient atmosphere and selectively closed to decouple air in the air escape path with ambient atmosphere;

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wherein the air blow-off vent is selectively opened concurrent with supply of ink to pressurize the local ink container, to thereby expel air through the air blow-off vent.

The Reference

In rejecting the claims under 35 U.S.C. § 102(b), the examiner relies upon the following reference:

Pawlowski, Jr. (Pawlowski) 5,847,734 Dec. 08, 1998

The Rejections

Claims 14, 20, and 23 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention.¹

Claim 17 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Pawlowski.

The Invention

The invention relates to a system for purging air from a print mechanism. The claimed system vents air from an ink pen using a valve to regulate pressure within the pen. Air bubbles which may be trapped in the pen collect in air vents which are configured to gravitationally channel air upwardly. (Appeal Brief, page 2, lines 3-17). Further details of the claimed subject matter are found in the claims reproduced above.

The Rejection of Claims 14, 20 and 23 Under 35 U.S.C. § 112

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The examiner has found that claims 14, 20, and 23 are misdescriptive in that each recites three air escape paths. (Examiner's Answer, page 7, lines 9-16). The gravamen of this rejection is based on the examiner's interpretation of the claims at issue in that claim 12 recites "an" air path, while claim 14 recites "further comprising ... two air paths..." Claims 20 and 23 are said to suffer the same infirmity. (Id.)

Due to the grouping of claims, we focus on claim 12 and 14. We determine that the examiner has misapprehended the scope of claim 12 and claim 14. Claim 12 is written in comprising language, which opens it up to any additional included elements, be they disclosed in the specification or not. PPG Indus. v. Guardian Indus. Corp., 156 F.3d 1351, 1354, 48 USPQ2d 1351, 1353-54 (Fed. Cir. 1998) citing Ex parte Davis, 80 USPQ 448, 449-50 (Pat. Off. Bd. App. 1948); Manual of Patent Examining Procedure § 2111.03 (6th ed. 1997) (Fully open claims that are drafted in a "comprising" format). Thus, the statement that it include "an" air path does not exclude a two, three, or four air path device from falling within the scope of the claim.

The crux of the problem is found in the language of claim 14. Claim 14 claims the apparatus "further comprising an ink filter and two air paths." The examiner is interpreting this as

1 The examiner withdrew the §112 rejection as it pertains to claims 12, 13, 15-

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requiring the two air paths to be separate from the first air path. We disagree with this interpretation afforded claim 14.

Claim 14 conveys adequately to one of ordinary skill in the art what it covers, when viewed in the light of binding precedent.

Indeed, in Crystal Semiconductor Corp. v. TriTech Microelectronics Intern., Inc., 246 F.3d 1336, 1347, 57 U.S.P.Q.2d 1953, 1958 (Fed. Cir. 2001) the Federal Circuit noted that:

This court has consistently emphasized that the indefinite articles "a" or "an," when used in a patent claim, mean "one or more" in claims containing open-ended transitional phrases such as "comprising." KCJ Corp. v. Kinetic Concepts, Inc., 223 F.3d 1351, 1356, 55 USPQ2d 1835, 1839 (Fed.Cir.2000); see Elkay Mfg. Co. v. Ebco Mfg. Co., 192 F.3d 973, 977, 52 USPQ2d 1109, 1112 (Fed.Cir.1999); Abtox, Inc. v. Exitron Corp., 122 F.3d 1019, 1023, 43 USPQ2d 1545, 1548 (Fed.Cir.1997). "Under this conventional rule, the claim limitation 'a,' without more, requires at least one." KCJ Corp at 1356 (emphasis added).

This is on point with the present instance. Claim 14 does not specifically require three air paths, it only requires two.

Likewise we disagree with the examiner's interpretation of claim 14 as requiring two, if not three blow-off vents (Examiner's Answer, page 6, lines 3-8). Consequently we shall reverse this rejection as it is founded on an incorrect claim interpretation.

The Rejection of Claim 17 Under 35 U.S.C. § 102 (b)

The examiner has found that Pawlowski discloses all of the claimed features of the invention. (Examiner's Answer, page 4,

19, 21 and 22. (Examiner's Answer, page 5, last two lines).

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line 15 - page 5, line 11). The appellant focuses argument on two features of the claim which are urged to be absent. First, it is contended that the appellants' claim requires a valve that can be selectively opened and closed, while Pawlowski is a one-way duck billed check valve (Appeal Brief, page 8, lines 5-10). Second, it is urged that Pawlowski does not show an air escape path configured to gravitationally collect air, where a vent may be "selectively" opened to vent gravitationally collected air. (Appeal Brief, page 9, lines 5-7).

We are not persuaded by this argument. While the appellants focus on the different modes of operating the valves and their implicit functioning, we remind the appellants that it is the claims which measure the invention.

Pawlowski, in figure 1, reference numeral 220, illustrates a "purge tube" which opens when the tube pressure exceeds a "preselected" pressure to vent air out of the chamber (column 9, lines 7-10). By its orientation in the Figure and associated description, we find that the purge tube and check valve of Pawlowski clearly meet the claim limitations of the air escape path configured to gather air bubbles gravitationally from the local ink container, and the air blow-off vent selectively opened to operatively couple air in the air escape path with ambient atmosphere and selectively closed to decouple air in the air

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escape path from ambient atmosphere.

As regards the argument made by the appellants regarding the "selectively" operative nature of the valve, we note that Pawlowski's valve is "selectively" operated by adjusting the pressure in the purge tube to above 2 psi. (Column 9, lines 7-10). Accordingly, we shall affirm this rejection.

Summary of Decision

The rejection of claims 14, 20 and 23 Under 35 U.S.C. § 112, second paragraph, is reversed.

The rejection of claim 17 under 35 U.S.C. §102(b) over Pawlowski is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

BRADLEY R. GARRIS)
Administrative Patent Judge)
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) BOARD OF PATENT
CHARLES F. WARREN)
Administrative Patent Judge) APPEALS AND
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) INTERFERENCES
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