

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

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte BRUCE G. JOHNSON

Appeal No. 2007-0603
Application No. 10/616,668
Technology Center 2800

Decided: April 30, 2007

Before KENNETH W. HAIRSTON, JOSEPH L. DIXON, and HOWARD B. BLANKENSHIP, *Administrative Patent Judges*.

HAIRSTON, *Administrative Patent Judge*.

DECISION ON APPEAL
STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134 from a Final Rejection of claims 33, 37 to 41, and 43 to 52. We have jurisdiction under 35 U.S.C. § 6(b).

Appellant has invented an inkjet printing method and system in which a carrier fluid that carries ink from an inkjet print head to a transfer belt is absorbed by the transfer belt. Prior to transferring the ink from the transfer belt to a sheet of print medium, the transfer belt is heated to facilitate removal of the carrier fluid from the ink on the transfer belt (Figure 6; Specification 10 and 11). In an alternative embodiment, Appellant discloses that an electrical charge on the ink and carrier fluid facilitates the transfer of the ink to the print medium (Specification 10 and 13).

Claim 33 is representative of the claims on appeal, and it reads as follows:

33. A method of printing with an inkjet printing system, said method comprising:

providing a supply of liquid ink comprising a carrier fluid;

using said ink, printing an image with an inkjet print head on a transfer belt that is adjacent to said print head and movable with respect to said print head;

absorbing carrier fluid from ink of said image with said transfer belt;

heating said transfer belt to facilitate removal of said carrier fluid from said image on said transfer belt; and

transferring said printed image from said transfer belt to a sheet of print medium.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Takei

EP 0 530 627 A2

Mar. 10, 1993

The Examiner rejected claims 33, 38 to 41, 43 to 46, 49, 51, and 52 under 35 U.S.C. § 102(b) based upon the teachings of Takei. The Examiner rejected claims 37, 47, 48, and 50 under 35 U.S.C. § 103(a) based upon the teachings of Takei.

Appellant contends that “Takei teaches heating the drum *after the image is transferred to the print medium* to recover solvent absorbed by a layer on the drum” (Reply Br. 4), and that “Takei does not ever teach or suggest an electrical charge that ‘*facilitates* transfer of said images to the print medium’” (Br. 6).

We reverse.

ISSUES

Does Takei heat the transfer medium to facilitate removal of carrier fluid prior to transferring the ink to a print medium?

Does Takei apply an electrical charge to the ink and carrier fluid to facilitate transfer of the ink to the print medium?

FINDINGS OF FACT

Appellant describes a heating element 200 that heats the transfer belt 104 to facilitate the removal of the carrier fluid from the ink in image 105 on the transfer belt. After removal of the carrier fluid, the image 105 is transferred from the transfer belt 104 to the print medium 103 (Figure 6). In an alternative embodiment, Appellant describes the use of an electrical charge on the ink and the carrier fluid to facilitate the transfer of the image to the print medium.

In the third embodiment described by Takei, a water-absorbing layer 21a is located on the outer surface of transfer drum 21 (Figures 3 and 4; col.

6, ll. 31-37). The layer 21a swells to absorb water from ink at low temperatures, and contracts to release water at high temperatures. A cooler 28 is used to cool the surface of the transfer drum 21 so that the layer 21a will absorb the water in the ink ejected from recording heads 23C, 23M, and 23Y (col. 6, ll. 2-17). The ink is then transferred to a recording medium S by fixing roller 25 (col. 6, ll. 17-20). After the transfer station, a heater 27 is used to heat layer 21a to a contraction phase to cause release of the water from the layer 21a (col. 6, ll. 21-29).

In the eighth embodiment described by Takei, the charge on the ink particles emitted by recording head 53 is opposite to the charge applied to the transfer drum 51 so that the ink will remain on the transfer drum due to the electric field effect (col. 9, ll. 41-43 and col. 10, ll. 4-6). Thereafter, the ink on the transfer drum 51 is transferred to recording medium S (col. 10, ll. 7-10).

PRINCIPLE OF LAW

Anticipation is established when a single prior art reference discloses expressly or under the principles of inherency each and every limitation of the claimed invention. *Atlas Powder Co. v. IRECO Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1946 (Fed. Cir. 1999); *In re Paulsen*, 30 F.3d 1475, 1478-79, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

ANALYSIS

We agree with Appellant that Takei heats the transfer drum “*after the image is transferred*,” whereas claim 33 on appeal heats the transfer belt prior to the transfer of the image to the print medium. We additionally agree with Appellant that Takei does not use an electrical charge on the ink to

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“*facilitate*” the transfer of the image to the print medium as set forth in claim 44 on appeal.

CONCLUSIONS OF LAW

Anticipation has not been established by the Examiner because Takei does not disclose each and every limitation of the claimed invention set forth in claims 33, 38 to 41, 43 to 46, 49, 51, and 52.

Obviousness has not been established by the Examiner because Takei neither teaches nor would have suggested to one of ordinary skill in the art the subject matter set forth in claims 37, 47, 48, and 50.

DECISION

The anticipation rejection of claims 33, 38 to 41, 43 to 46, 49, 51, and 52 is reversed. The obviousness rejection of claims 37, 47, 48, and 50 is reversed.

REVERSED

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P. O. Box 272400
Fort Collins CO 80527-2400