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EXAMINER
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KAU, STEVEN Y

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* STEPHEN M. KROON

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Appeal 2011-000404  
Application 10/280,216  
Technology Center 2600

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Before DEBRA K. STEPHENS, KALYAN K. DESHPANDE, and  
LARRY J. HUME, *Administrative Patent Judges*.

STEPHENS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) (2002) from a final rejection of claim 24. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

*Introduction*

According to Appellant, the invention relates generally to raster printing enhanced black, and more particularly to selectively printing enhanced black.

STATEMENT OF THE CASE

*Claim*

Claim 24 is the claim at issue and is reproduced below:

24. A method of printing comprising:
- (a) providing a processor and printer;
  - (b) identifying pixel locations on a print output medium to be marked with black as determined by transforming each pixel of multi-bit per pixel black input image data through threshold array halftoning using, for each pixel location, the corresponding predetermined black threshold level and producing single bit per pixel output data;
  - (c) identifying a subset of the pixel locations to be printed with black to also be enhanced as determined by transforming each pixel of the multi-bit per pixel black input image data through threshold array halftoning using, for each pixel location, the corresponding predetermined non-white threshold level such that a darker multi-bit input pixel value is required to identify the pixel location to be marked with black;
  - (d) printing black at the identified pixel locations; and,

- (e) enhancing only the subset by printing non-black color thereon.

*References*

Hayasaki	US 4,953,015	Aug. 28, 1990
Harrington	US 6,014,226	Jan. 11, 2000

*Rejections*

Claim 24 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hayasaki and Harrington.

We have only considered those arguments that Appellant actually raised in the Briefs. Arguments Appellant could have made but chose not to make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii)(2011).

ISSUE

*35 U.S.C. § 103(a): claim 24*

Appellant asserts their invention is not obvious over Hayasaki and Harrington because “Hayasaki does not determine a subset by a second halftoning of the black multi-bit per pixel input image data using the predetermined different threshold level than was used for determining which pixel locations are to be printed with black” (App. Br. 7). Specifically, according to Appellant, the system of Hayasaki does not use the black multi-bit per pixel input image data for a second threshold array halftoning to determine a subset of black to be enhanced (*id.*), i.e., does not use thresholding based upon input image data to determine the subset to be

enhanced (Reply Br. 4). Instead, Appellant contends Hayasaki always operates on bi-level data using a fixed pattern color matrix table for determining black pixels to be enhanced independent of input image data (App. Br. 7 and Reply Br. 4).

*Issue:* Has the Examiner erred in finding the combination of Hayasaki and Harrington teaches or suggests “identifying a subset of the pixel locations to be printed with black to also be enhanced *as determined by transforming each pixel of the multi-bit per pixel black input image data* through threshold array halftoning using, for each pixel location, the corresponding predetermined non-white threshold level such that a darker multi-bit input pixel value is required to identify the pixel location to be marked with black” as recited in claim 24? (Emphasis added).

#### ANALYSIS

We have reviewed Appellant’s arguments but are not persuaded of error in the Examiner’s findings and conclusions. We emphasize the following. Appellant argues Hayasaki “teaches using a fixed pattern color matrix table for determining black pixels to be enhanced independent of input image data and does not employ thresholding based upon input image data for determining a subset to be enhanced” (Reply Br. 4) (emphasis in original). However, Appellant is arguing limitations not recited in the claim.

We instead agree with the Examiner that Hayaskai teaches or at least suggests identifying a subset of the pixel locations to be printed with black to also be enhanced (Ans. 6-8). We further agree Hayasaki teaches or at

least suggests enhancing as determined by transforming each pixel of the multi-bit per pixel black input image data through threshold array halftoning such that a darker multi-bit input pixel value is required to identify the pixel location to be marked with black (Ans. 8-9).

Therefore, Appellants have not persuaded us that the Examiner erred in finding the combination of Hayasaki and Harrington teaches or suggests “identifying a subset of the pixel locations to be printed with black to also be enhanced as determined by transforming each pixel of the multi-bit per pixel black input image data through threshold array halftoning using, for each pixel location, the corresponding predetermined non-white threshold level such that a darker multi-bit input pixel value is required to identify the pixel location to be marked with black” as recited in claim 24. (Ans. 8-9).

Accordingly, the Examiner did not err in finding the combination of Hayasaki and Harrington teaches or suggests the invention as recited in claim 24. Therefore, the Examiner did not err in rejecting claim 24 under 35 U.S.C. § 103(a) for obviousness over Hayasaki and Harrington.

#### DECISION

The Examiner’s rejection of claim 24 under 35 U.S.C. § 103(a) as being unpatentable over Hayasaki and Harrington is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2011).

Appeal 2011-000404  
Application 10/280,216

AFFIRMED

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