THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KAZUYUKI FUKUI, YOSHINOBU HADA, TAKANOBU YAMADA, and HIROYUKI IDEYAMA

Appeal No. 96-2281
Application No. 08/061,225[1]

HEARD: June 8, 1999

Before THOMAS, JERRY SMITH, and GROSS, Administrative Patent Judges.

GROSS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 9, which are all of the claims pending in this application.

[1] Application for patent filed May 17, 1993.

The appellants' invention relates to an image forming apparatus and method in which masking coefficients are determined according to the gradation curve that has been selected. Claim 7 is illustrative of the claimed invention, and it reads as follows:

7. A digital color image forming apparatus comprising:
a manual input panel for manually inputting a desired gradation curve;
a masking processor which multiplies an image signal with a masking coefficient determined according to the gradation curve inputted with said manual input panel to send the image signal for a print color;
a conversion circuit which converts the image signal to print data in correspondence with light quantity data according to the gradation curve inputted by said manual input panel; and
a printer which prints the image by exposing a photoconductor based on said print data.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Asada	5,018,008	May 21, 1991
Hirota	5,345,320	Sep. 06, 1994
	(filed Nov. 26, 1991)	

Claims 1 through 9 stand rejected under 35 U.S.C. § 103 as being unpatentable over Asada and Hirota.

Reference is made to the Final Rejection (Paper No. 10, mailed November 17, 1994) and the Examiner's Answer (Paper No.

17, mailed June 27, 1995) for the examiner's complete reasoning in support of the rejections, and to the appellants' Brief (Paper No. 16, filed May 26, 1995) and Reply Brief (Paper No. 19, filed August 28, 1995) for the appellants' arguments thereagainst.

OPINION

We have carefully considered the claims, the applied prior art references, and the respective positions articulated by the appellants and the examiner. As a consequence of our review, we will reverse the obviousness rejection of claims 1 through 9.

Claim 1 requires "a color balance control means which changes the masking coefficients . . . according to the gradation curve changed by said manual input panel" (underlining added for emphasis). Each of the other independent claims (5, 7, 8, and 9) includes a similar limitation wherein the masking coefficients are selected or set according to or in correspondence with the gradation curve.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is required to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley, 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933

(Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

The examiner, in his rejection of claim 1, declares (Final Rejection, page 2) that "Asada discloses a color balance control which changes the masking coefficients according to the gradation curve," but does not point to any particular portion of Asada for support. For claim 5, the examiner states (Final Rejection, page 5) that "Asada does not discloses [sic] . . . selecting the masking coefficients." How Asada can disclose changing the masking coefficients for claim 1 without selecting what coefficients are to be used for claim 5 is unclear to us. For claims 7 and 9, the examiner merely asserts that Asada discloses

a memory which stores masking coefficients, but fails to address whether the masking processor determines the coefficients "according to the gradation curve." For claim 8 the examiner contends that Asada "discloses setting a color masking coefficient according to the gradation characteristic

set in the setting step of gradation characteristic," though as stated above he believes that Asada does not disclose selecting such coefficients.

Appellants assert (Brief, page 9) that

> Asada does not describe how the basic masking circuit operates or how the masking coefficients are chosen. Asada does not disclose that the masking coefficients used by the masking circuit are changed at all and certainly does not disclose that the masking coefficients are changed according to the gradation curve. (emphasis in original)

We agree. The examiner refers to column 4, lines 50-65, of Asada (Final Rejection, page 6) as support for his assertion that Asada discloses setting the masking coefficients according to the gradation characteristic. However, the portion cited in Asada merely discloses that "gradation curves are determined" first in the color correction circuit. Nowhere does Asada describe selecting or changing the masking coefficients. Consequently, we must agree with appellants that Asada does not disclose changing the masking coefficients according to the gradation curve, nor

any correspondence between the coefficients and the gradation curve.

The examiner responds to appellants' argument (Answer, paragraph bridging pages 3 and 4) by reasoning that

> Asada has all the functional blocks such as shadow setting circuit 4, basic masking circuit 5, a color correction circuit 6, a gradation setting circuit 7 and an output correction circuit 8. With a central processing unit 11, it is obvious that any one of these functional blocks can be changed when the original color image is not mapped correctly to the output image. (underlining added for emphasis)

However, the standard for obviousness is not what can be done, but rather what would have been obvious in view of the teachings and suggestions from the prior art. Even if it would have been obvious to change the masking coefficients based on the mere existence of a masking circuit, Asada still does not disclose a correspondence between the masking coefficients and the gradation curve, and the examiner has provided no evidence that there is such a correspondence. The examiner has made unsupported and contradictory assertions, has ignored claim limitations for some claims, and has failed to give any motivation for modifying the device of Asada (the primary reference relied upon) to change or set the masking coefficients according to the gradation curve. Clearly the

examiner has failed to present a prima facie case of obviousness.

Hirota, the reference cited by the examiner for the use of a manual input panel, does not overcome the shortcomings of Asada. Hirota discusses masking coefficients in column 7, line 59-column 8, line 11. However, Hirota discloses that the "masking coefficient data C_1=A_c, B_c or C_c, C_2=Am, Bm or Cm and C_3=Ay, By or Cy [is] generated in accordance with the mode data inputted from the CPU," (col. 7, line 66 - col. 8, line 1) or rather according to whether the image is to be in full color mode or mono color mode. Hirota does not disclose changing the masking coefficients nor setting the masking coefficients according to the gradation curve. Accordingly, as neither Asada nor Hirota discloses any correspondence between the masking coefficients and the gradation curve, we find that the combination of the two references is insufficient to establish a prima facie case of obviousness. Consequently, we cannot sustain the rejection of claims 1 through 9 over Asada and Hirota.

CONCLUSION

The decision of the examiner rejecting claims 1 through 9 under 35 U.S.C. § 103 is reversed.

REVERSED

JAMES D. THOMAS Administrative Patent Judge	)
JERRY SMITH Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
ANITA PELLMAN GROSS Administrative Patent Judge	)

vsh

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