

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. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARCUS EGBERT KOLE

Appeal No. 2004-1134
Application No. 09/928,204

ON BRIEF

Before OWENS, LEVY, and SAADAT, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal is from the final rejection of claims 3-6 and refusal to allow claims 1 and 2 as amended after final rejection. These are all of the claims in the application.

THE INVENTION

The appellant claims a color camera having an amplifier circuit for white compensation and brightness compensation.

Claim 1 is illustrative:

1. A color picture camera (1, 31, 41) with a sensor (2) including a sensor surface for imaging color pictures, which pictures being converted into electrical signals, a red

component of the color picture generating an electrical red value signal (R), a green component of the color picture generating an electrical green value signal (G), and a blue component of the color picture generating an electrical blue value signal (B), which signals are supplied to a parallel/serial converter (11) and an amplifier circuit (3, 32, 42) for a white compensation and a brightness compensation, wherein the amplifier circuit (3) comprises a first amplifier (17) in a separate channel (12) for a white compensation of the red value signal (R), a second amplifier (18) in a second channel (14) for a white compensation of the blue value signal (B), and a third, separate channel (13) for the brightness compensation of the green value signal (G).

THE REFERENCES

Suzuki	5,691,772	Nov. 25, 1997
Khoury	5,838,194	Nov. 17, 1998
Opris	6,342,919	Jan. 29, 2002

(filed Apr. 8, 1999)

THE REJECTIONS

The claims stand rejected as follows: claims 1-3 under 35 U.S.C. § 102(b) as anticipated by Suzuki; claim 4 under 35 U.S.C. § 103 as obvious over Suzuki; claim 5 under 35 U.S.C. § 103 as obvious over Suzuki in view of Khoury; and claim 6 under 35 U.S.C. § 103 as obvious over Suzuki in view of Opris.¹

¹ The examiner relies upon U.S. 5,969,759 to Morimoto and 5,128,533 to Oguchi in support of the rejection of claims 1-3 (answer, pages 4-7). Because those references are not included in the statement of the rejection, they are not properly before us. See *In re Hoch*, 428 F.2d 1341, 1342 n.3, 166 USPQ 406, 407 n.3 (CCPA 1970). Consequently, we do not consider those references in reaching our decision.

OPINION

We affirm the rejection of claims 1 and 2 and reverse the rejections of claims 3-6.

Claims 1 and 2

Suzuki discloses prior art and inventive color picture cameras having an imaging unit that can be a charge coupled device (CCD) and outputs red, blue and green signals (col. 1, lines 14-26; col. 4, lines 5-18). An amplifier circuit has a first amplifier (104; 404R) in a first channel for white balance of the red signal, a second amplifier (104B; 404B) in a second channel for white balance of the blue signal, a third, separate channel for the green signal, and a signal processor (105; 405) for adjustment of gain (col. 1, lines 26-37; col. 4, lines 18-33; figures 1 and 3).

The appellant argues that Suzuki does not disclose a parallel/serial converter (brief, page 5). The appellant discloses that the parallel/serial converter is a shift register (specification, page 4, lines 2 and 7). The examiner finds that CCDs inherently have vertical shift registers which shift their contents in parallel into a horizontal shift register that shifts out its charges serially and, therefore, corresponds to the

Appeal No. 2004-1134
Application No. 09/928,204

appellant's parallel/serial converter (answer, pages 5-6).² Since the examiner's finding is reasonable and has not been challenged by the appellant, we accept it as fact. See *In re Kunzmann*, 326 F.2d 424, 425 n.3, 140 USPQ 235, 236 n.3 (CCPA 1964).

The appellant argues that if Suzuki's imaging unit had a parallel/serial converter, there would be only one output from the imaging unit rather than the three outputs shown in figures 1 and 3 (brief, page 5). One of ordinary skill in the art would have considered the three lines shown in figures 1 and 3 to be coming from the horizontal shift register when Suzuki's imaging unit is a CCD.

The appellant argues that there is no indication that the gain adjustment by Suzuki's signal processor is for brightness compensation (brief, page 5). The appellant indicates that "brightness compensation" and "gain control" have the same meaning (specification, page 4, lines 12-13). Hence, the record

² This finding is supported by "Devices Working Principles - Working Principles of CCD camera" 1-4, at: <http://murray.newcastle.edu.au/users/students/2000/c9700402/AlanWeb/DeviceWorkingPrinciples.htm>, a copy of which is provided to the appellant with this decision.

Appeal No. 2004-1134
Application No. 09/928,204

indicates that Suzuki's gain adjustment provides brightness compensation.

The appellant argues that Suzuki's signal processor receives each signal independently, whereas the appellant's color signals are combined and then sent to an amplifier (brief, pages 5-6). The appellant's claim 1, however, does not require combining the signals before they are sent to the amplifier to which Suzuki's signal processor corresponds.

For the above reasons we find that the camera claimed in the appellant's claim 1 is anticipated by Suzuki. Accordingly, we affirm the rejection of that claim and claim 2 that stands or falls therewith (brief, page 4).

Claim 3

Claim 3 requires "an amplifier (35) for the white compensation and the brightness compensation of the red value signal (R) and the blue value signal (B), and an amplifier (36) for the brightness compensation of the green value signal (G)."

The examiner argues (answer, page 9):

In the broadest reasonable interpretation of claim 3, claim 3 requires an amplifier for white compensation and an amplifier for brightness compensation for the red value signal and an amplifier for white compensation and an amplifier for brightness compensation for the blue value signal and an amplifier for the brightness compensation of the green value signal. Nowhere within claim 3, it is [sic] required to combine amplifiers 104R and 104B to perform white compensation of both the red and blue color signals wherein such a combined amplifier should also perform brightness compensation for the red and blue signals and a separate amplifier for brightness compensation of the green color signal, as argued by the Appellant.

During patent prosecution, claims are to be given their broadest reasonable interpretation consistent with the specification, as the claim language would have been read by one of ordinary skill in the art in view of the specification and prior art. See *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); *In re Sneed*, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983). The specification discloses that operational amplifier 35 processes the blue value signal both with a factor for white compensation and a factor for brightness adaptation, and multiplies the red value signal by a factor for white compensation and a factor for brightness compensation (page 4, lines 31-32; page 5, lines 4-6). Also, figure 2 shows both the red and blue signals being input to a single

Appeal No. 2004-1134
Application No. 09/928,204

amplifier (35). Hence, the broadest reasonable interpretation of the appellant's claim term "an amplifier", consistent with the specification, is that it means "one amplifier".

Because the examiner has not established that Suzuki discloses one amplifier for the white compensation and the brightness compensation of the red signal and the blue signal, the examiner has not carried the burden of establishing a *prima facie* case of anticipation of the camera claimed in the appellant's claim 3. We therefore reverse the rejection of that claim.

Claims 4-6

Claim 4 requires an amplifier circuit for whiteness compensation and brightness compensation that "comprises a two-stage amplifier (43, 44) with a first amplifier stage (43) for a fine compensation and a second amplifier stage (44) for a coarse compensation."

The examiner argues that "[a]fter examination of the specification, one with ordinary skill in the art would associate the phrase 'fine compensation' with brightness compensation (automatic gain control) and the phrase 'coarse compensation' with white balance" (final rejection mailed January 14, 2003, paper no. 9, page 4). The specification states that first

Appeal No. 2004-1134
Application No. 09/928,204

amplifier stage 43 carries out fine tuning of the brightness factor, and second amplifier stage 44 carries out white compensation and coarse tuning of the brightness compensation (page 5, lines 13-16). Hence, the examiner's argument is incorrect.

The examiner argues that "[a]lthough Suzuki does not expressly mention the reversal of stages of the two-stage amplifier (meaning that the first amplifier stage would control the brightness compensation and the second amplifier stage would control the white balance) it would have been obvious to one with ordinary skill in the art to do so because the input and output of the first and final stages, respectively, in either setup, would come from and lead to their same respective locations" (final rejection mailed January 14, 2003, paper no. 9, page 4).

For a *prima facie* case of obviousness to be established, the teachings from the prior art itself must appear to have suggested the claimed subject matter to one of ordinary skill in the art. See *In re Rinehart*, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976). The mere fact that the prior art could be modified as proposed by the examiner is not sufficient to establish a *prima facie* case of obviousness. See *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992).

Appeal No. 2004-1134
Application No. 09/928,204

The examiner has not established that Suzuki's disclosure itself would have fairly suggested, to one of ordinary skill in the art, reversing the order of the white balance variable amplifiers and the signal processor as proposed by the examiner. For this reason and because the examiner has not established that Suzuki would have fairly suggested, to one of ordinary skill in the art, an amplifier circuit for whiteness compensation and brightness compensation having a two-stage amplifier with a first amplifier stage for a fine compensation and a second amplifier stage for a coarse compensation, we conclude that the examiner has not carried the burden of setting forth a *prima facie* case of obviousness of the camera claimed in the appellant's claim 4. We therefore reverse the rejection of that claim.

The examiner does not rely upon Khoury or Opris for any disclosure that remedies the above-discussed deficiency in Suzuki as to claim 4 from which claims 5 and 6 depend. Accordingly, we reverse the rejections of claims 5 and 6.

Appeal No. 2004-1134
Application No. 09/928,204

DECISION

The rejection of claims 1-3 under 35 U.S.C. § 102(b) over Suzuki is affirmed as to claims 1 and 2 and reversed as to claim 3. The rejections under 35 U.S.C. § 103 of claim 4 over Suzuki, claim 5 over Suzuki in view of Khoury, and claim 6 over Suzuki in view of Opris, are reversed.

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

TERRY J. OWENS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
STUART S. LEVY)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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MAHSHID SAADAT)	
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Appeal No. 2004-1134
Application No. 09/928,204

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