

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte JERZY Z. MYDLARZ and ROGER L. KLAUS,

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Appeal No. 2001-0729  
Application No. 09/013,091

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ON BRIEF

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Before WILLIAM F. SMITH, KIMLIN and POTEATE, Administrative Patent Judges.

POTEATE, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the examiner's refusal to allow claims 1, 4, 5 and 8-13, which are all of the claims pending in the application.

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Claim 1 is representative of the subject matter on appeal  
and is reproduced below:

1. A method of forming a sensitized silver chloride emulsion comprising forming a silver chloride emulsion, adding spectral sensitizing dye, sulfur, and gold sulfide to said emulsion, heating said emulsion to chemically and spectrally sensitize said emulsion, and cooling said emulsion, wherein said sulfur is present in an amount between 0.05 and 20 mg/silver mole, said gold sulfide is present in an amount between 1 and 60 mg/mol Ag, said sulfur comprises sodium thiosulfate and is present in an amount between 0.1 and 1.0 mg/silver mol, and wherein said silver chloride emulsion has grains that comprise greater than 95 percent chloride and are cubic.

The references relied upon by the examiner are:

Asami	5,434,034	Jul. 18, 1995
Ohzeki	5,891,614	Apr. 06, 1999 (filed Apr. 18, 1997)

#### Ground of Rejection

Claims 1, 4, 5 and 8-13 stand rejected under 35 U.S.C. § 103  
as unpatentable over Asami in view of Ohzeki.

We reverse.

#### Background

The invention relates to a method of forming a sensitized  
silver chloride emulsion of the type used in photographic

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emulsions and color paper photographic elements. Claim 1; appeal brief, paper no. 19, received July 24, 2000, page 1, last paragraph. In particular, in accordance with the method, a cubic silver chloride emulsion is sensitized in a way which minimizes pressure sensitivity of the emulsion during development of a photographic element. Id., page 2, second paragraph. By minimizing pressure sensitivity, a number of defects such as streaks which occur during development of a picture are reduced. Id. at first paragraph. In accordance with the invention, a decrease in pressure sensitivity is achieved using a cubic silver chloride emulsion having greater than 95% silver chloride which is sensitized by adding gold sulfide and sodium thiosulfate, heating and then cooling the emulsion. Id. at second paragraph.

#### Discussion

The initial burden of presenting a prima facie case of obviousness rests on the examiner. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). A proper analysis under § 103 requires, inter alia, that the examiner consider two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they make the claimed composition or device or carry out the claimed process, and (2)

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whether the prior art would have revealed that in so making, or carrying out, those of ordinary skill in the art would have a reasonable expectation of success. In re Vaeck, 947 F.2d, 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991). "Both the suggestion and the reasonable expectation of success must be founded in the prior art, not in the applicant's disclosure." Id.

The examiner relies on Asami as disclosing a method of preparing a silver chloride emulsion using cubic silver halide grains containing at least 95% chloride. Examiner's answer, paper no. 20, mailed November 6, 2000, page 3. Asami teaches the addition of a green sensitizing dye, sodium thiosulfate and potassium bromide to the emulsion which is then heated during spectral and chemical sensitization and cooled to terminate sensitization. Id. The examiner concedes that Asami does not specifically disclose the addition of gold sulfide to the emulsion. See id., pages 4 and 6. The examiner further concedes that "Asami also fails to provide a teaching to specifically choose to use gold sulfide and sodium thiosulfate as the gold and sulfur sensitizer." Id. at page 5. However, the examiner references Asami's general disclosure of chemically sensitizing silver halide grains with "sulfur, selenium, noble metal, and reduction sensitizer solely or in combination." Id. at page 4,

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referencing Asami, column 43, lines 7-11. The examiner also notes Asami's disclosure that any gold sensitizer may be used as a noble metal sensitizer. Id., referencing column 43, lines 39-46 of Asami.

The examiner relies on Ohzeki as demonstrating that gold sulfide is a commonly used gold sensitizer. Id. at page 6. According to the examiner,

[t]he examples of the reference use the combination of sodium thiosulfate and chloroauric acid (column 58, lines 52-67). As gold sulfide and chloroauric acid are taught to be equivalent, one of ordinary skill in the art would have been motivated to replace the chloroauric acid with gold sulfide with reasonable expectation of achieving equivalent sensitivity.

Id. Thus, the examiner concludes that

"[g]iven the teaching of Ohzeki, it would have been obvious to one of ordinary skill in the art to prepare a photographic material comprising the grains of Asami sensitized with sodium thiosulfate and gold sulfide as the sulfur and gold sensitizers each in an amount meeting the limitations of the present claims with reasonable expectation for achieving a photographic material excellent in resistance to damage by pressure and excellent in color reproduction."

Id. at pages 5-6.

Based on our review of the Asami and Ohzeki references, we are in agreement with appellants that the examiner's position is based upon improper hindsight reconstruction. See appeal brief, page 6, last paragraph ("It is respectively urged that the

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Examiner has merely found shopping lists containing the materials claimed and has found no teaching which would suggest their selection and use in the instant invention."). When an obviousness determination is based on a combination of prior art references, there must be some "teaching, suggestion or incentive supporting the combination." In re Geiger, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987). "The factual inquiry whether to combine references must be thorough and searching." McGinley v. Franklin Sports, Inc, 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001). The Federal Circuit requires that the Board's decisions are supported by substantial evidence. Id., 258 F.3d at 1381, 59 USPQ2d 1694. Thus the Board "must set forth its findings and the grounds thereof *as supported by the agency record* and explain its application of the law to the found facts." In re Lee, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002). In the present case, the examiner has simply failed to make the requisite factual findings necessary to support his conclusion of obviousness. See In re Zurko, 258 F.3d, 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001) (the examiner must identify concrete evidence in the record in support of his findings).

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Ohzeki's invention relates to silver halide emulsions for reducing development and fixing time, as well as achieving low pollution. Ohzeki, column 1, lines 9-12. In contrast, Asami's invention is directed to a color photographic material that can provide a color print which is resistant to damage by pressure and to a method for forming a color image. Asami, column 1, lines 5-9. Although the examiner is correct that obviousness does not require that references be combined for the reasons contemplated by the inventor (answer, page 8) the examiner must still establish that the prior art as a whole provides some motivation or suggestion to combine the references. See In re Kronig, 539 F.2d 1300, 1304, 190 USPQ 425, 427-28 (CCPA 1976). The examiner has failed to establish why one of ordinary skill in the art would have been motivated to combine Asami and Ohzeki given the fact that they are directed to solving different prior art problems. Moreover, as pointed out by appellants, Ohzeki discloses a tabular silver halide grain while Asami utilizes a cubic grain. See appeal brief, page 6. Contrary to the examiner's contention, the burden is on the examiner, not on appellants, to establish that tabular and cubic grains would be expected to interact with sensitizers in the same manner. See examiner's answer, page 7 ("there is no evidence on the record

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that the sensitizers interact differently with tabular and cubic grains").

The examiner's finding of obviousness is also based on his conclusion that all sensitizers are equivalent. In support of this conclusion, the examiner notes that Ohzeki lists five specific examples of gold sensitizers. See id., page 6. However, even if this disclosure may be construed as a teaching that gold sulfide and chloroauric acid are equivalents as maintained by the examiner (see id.), the examiner has failed to establish that these gold sensitizers would be expected to perform in an equivalent manner in Asami's method. The examiner again improperly places the burden on appellant by requiring that appellant demonstrate that one of ordinary skill in the art would not combine gold sulfide with sodium thiosulfate because gold sulfite completely sensitizes grains and sodium thiosulfate decreases sensitivity. See examiner's answer, page 8.

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In sum, we find that the examiner has failed to establish a prima facie case of obviousness and the rejection is reversed.

REVERSED

WILLIAM F. SMITH	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
EDWARD C. KIMLIN	)	APPEALS AND
Administrative Patent Judge	)	INTERFERENCES
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LINDA R. POTEATE	)	
Administrative Patent Judge	)	

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