

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 FARZAD PARSAPOUR

Appeal 2006-2237
Application 10/153,764
Technology Center 1700

Decided: September 28, 2006

Before GARRIS, PAK, and WALTZ, *Administrative Patent Judges*.
WALTZ, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal from the Primary Examiner's Final Rejection of claims 1, 3 through 6, and 8 through 14, which are the only claims pending in this application. We have jurisdiction pursuant to 35 U.S.C. § 134.

According to Appellant, the invention is directed to a method of manufacturing color filters on a luminescent screen assembly of a color cathode-ray tube, where the color filters are formed between the faceplate

panel and the color-emitting phosphor utilizing a patterned light absorbing matrix and blocking layers (Br. 3). After each of the three color filters is formed, the faceplate panel is heated to a specific temperature (*id.*).

Independent claim 1 is illustrative of the invention and is reproduced below:

1. A method of manufacturing color filters on a luminescent screen assembly for a color cathode-ray tube (CRT), comprising:

providing a faceplate panel having a patterned light absorbing matrix thereon defining a set of first fields, a set of second fields and a set of third fields;

forming a first photosensitive blocking layer over the set of second fields and the set of third fields:

applying a first color filter to the set of first fields;

heating the faceplate panel to a first temperature;

removing the first photosensitive blocking layer from the set of second fields and the set of third fields;

heating the faceplate panel to a second temperature;

forming a second photosensitive blocking layer over the set of third fields and the first color filter in the set of first fields;

applying a second color filter to the set of second fields;

heating the faceplate panel to a third temperature; and

removing the second photosensitive blocking layer from the set third fields and the first color filter in the set of first fields.

The Examiner has relied upon the following references as evidence of unpatentability:

Haven	US 4,251,610	Feb. 17, 1981
Tanabe	US 5,306,688	Apr. 26, 1994
Koike	US 5,922,395	Jul. 13, 1999
Irita	US 5,981,111	Nov. 9, 1999

Claims 3, 4 and 8 stand rejected under 35 U.S.C. § 112, second paragraph, as indefinite (Answer 3, citing Tanabe). Claims 1, 5, 6, 10 and

11 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Haven and Koike (*id.*). Claims 12-14 stand rejected under § 103(a) as unpatentable over Haven and Koike (Answer 6). Claims 3, 4, 8 and 9 stand rejected under § 103(a) as unpatentable over Haven and Koike further in view of Irita (Answer 7).

We REVERSE the rejection on appeal based on paragraph two of § 112 essentially for the reasons stated in the Brief as well as those reasons set forth below. We AFFIRM all rejections on appeal based on § 103(a) essentially for the reasons stated in the Answer as well as those reasons set forth below. Accordingly, the decision of the Examiner is AFFIRMED.

OPINION

A. The Rejection under § 112, ¶ 2

The Examiner finds that claims 3, 4 and 8 recite the term “at least one non-pigmented oxide particle” and the meaning of this term is “unclear” (Answer 3). The Examiner finds that the Specification exemplifies this term as including alumina and silica (¶ [0027]) while the cited prior art (Tanabe) recognizes these examples as pigments (Answer 3, citing Tanabe, col. 20, l. 67-col. 21, l. 5). Therefore the Examiner finds that Appellant is using the term “pigmented” contrary to its ordinary meaning and thus the metes and bounds of the term are vague and indefinite (*id.*).

Appellant argues that the term “non-pigmented oxide particle” and the examples thereof to alumina and silica are “non-colored” white powders and this term is consistent with the listing of Tanabe (Br. 6-7).

The legal standard for definiteness in claim language is whether one of ordinary skill in the art would have been apprised of the scope of the claim when read in light of the specification. *See In re Warmerdam*,

33 F.3d 1354, 1361, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994). Although technically “pigments” include any substances which impart color, black or white, to materials,¹ we agree with Appellant that one of ordinary skill in this art would have recognized, from the examples of alumina and silica, that “non-pigmented” meant “non-colored” oxide particles. *See Xerox Corp. v. 3Com Corp.*, Appeal No. 04-1470, Fed. Cir. June 8, 2006. Therefore one of ordinary skill in the art would have recognized the scope of this language includes non-colored oxide particles whether or not these materials are classified as “pigments.” Accordingly, we cannot sustain the Examiner’s rejection of claims 3, 4 and 8 under § 112, second paragraph.

B. The Rejections under § 103(a)

The Examiner lists every step recited in claim 1 on appeal, and finds that Haven discloses every step of the method of manufacturing color filters except for steps D, F and I, namely Haven does not explicitly state that the faceplate panel is heated to a first, second, and third temperature after each color filter is applied to their respective set of fields (Answer 3-4). The Examiner finds that Koike teaches that, after depositing photosensitive phosphors or pigment slurries, the slurries may be dried by heating to a temperature such as 120 degrees C. before exposure (Answer 4). From these findings, the Examiner concludes that it would have been obvious to one of ordinary skill in the art at the time of Appellant’s invention to have dried the photosensitive phosphor compositions of Haven as taught by Koike (Answer 5).

¹ See Hackh’s *Chemical Dictionary*, 3rd ed., p. 659, The Blakiston Co., Inc., 1953.

Appellant repeats the same arguments against Haven and Koike for each group of claims (Br. 10, 14, and 18 for Haven; Br. 11, 15, 17 and 18 for Koike). Specifically, Appellant argues that Haven describes a “completely different method” in which green-, blue- and red-emitting phosphors are deposited on a faceplate (e.g., Br. 10). Appellant specifically argues that Koike “teaches away” from the claimed invention because this reference deposits red, green and blue photoresist filter layers “without the need for photosensitive blocking layers” (e.g., Br. 11). Accordingly, Appellant also argues that the combination of references does not describe the claimed method (e.g., Br. 11).

Appellant’s arguments are not persuasive for the reasons set forth in our Opinion in related Appeal No. 2006-2258 (Appl. No. 10/170,116). We adopt our claim construction of the term “color filters” from our previous Opinion (Specification 1: ¶ [0004]). However, the Examiner has indicated that Koike suggests the advantages of depositing color filters between the faceplate panel and the phosphors to increase color purity (Answer 8; see also Answer 6: Issue 3). We also note that Appellant admits that it was known in the art to form color filters between the faceplate panel and the color-emitting phosphor in order to enhance the color contrast of the luminescent screen (Specification 1:[0004]).² Therefore we determine that

² It is axiomatic that admitted prior art in an Applicant’s Specification may be used in determining the patentability of a claimed invention (*In re Nomiya*, 509 F.2d 566, 570-71, 184 USPQ 607, 611-12 (CCPA 1975)); and that consideration of the prior art cited by the Examiner may include consideration of the admitted prior art found in an Applicant’s Specification (*In re Davis*, 305 F.2d 501, 503, 134 USPQ 256, 258 (CCPA 1962); *cf.*, *In re Hedges*, 783 F.2d 1038, 1039-40, 228 USPQ 685, 686 (Fed. Cir. 1986)).

the deposition of a pigment layer or color filter between the faceplate panel and phosphor layer of Haven, as taught by Koike, would have been obvious to one of ordinary skill in this art at the time of Appellant's invention to increase color purity. Appellant does not dispute the Examiner's finding that Koike teaches the heating/drying of each pigment layer after it is deposited on the faceplate panel (Answer 4-5, citing Koike, col. 7, ll. 6-19).

Appellant argues that Irita does not describe or suggest the claimed method but is directed to color filters formed of silver halide light-sensitive layers coated with a water impermeable protective layer (Br. 22-23). As correctly stated by the Examiner (Answer 10), Irita was applied for its teaching that the adhesion of an overlying protective layer on a color filter was improved by adding colloidal silica in sizes as small as 1 nanometer (nm) to the color filter layer. The Examiner notes that Appellant has not challenged this finding (*id.*). See Irita, col. 15, ll. 20-27.

For the foregoing reasons and those stated in the Opinion in Appeal No. 2006-2258, we determine that the Examiner has established a *prima facie* case of obviousness in view of the reference evidence. Based on the totality of the record, including due consideration of Appellant's arguments, we determine that the preponderance of evidence weighs most heavily in favor of obviousness within the meaning of § 103(a). Accordingly, we AFFIRM each ground of rejection on appeal based on § 103(a).

C. Summary

The rejection of claims 3, 4 and 8 under § 112, second paragraph, is REVERSED. The rejection of claims 1, 5, 6, 10 and 11 under § 103(a) over Haven and Koike is AFFIRMED. The rejection of claims 12-14 under

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§ 103(a) over Haven and Koike is AFFIRMED. The rejection of claims 3, 4, 8 and 9 under § 103(a) over Haven and Koike further in view of Irita is AFFIRMED. Therefore the decision of the Examiner 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)(2004).

AFFIRMED

TAW/tf

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