Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte TAKAYUKI NABESHIMA

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Appeal No. 2002-1301
Application 09/233,983

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ON BRIEF

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

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-24, which constituted all the claims in the application. An amendment after final rejection was filed on April 30, 2001 and was entered by the examiner. This amendment cancelled claims 15-19. Therefore, this appeal is directed to the rejection of claims 1-14 and 20-24.

The disclosed invention pertains to an image reading apparatus comprising an illumination means, a transducer unit for converting light reflected from an original document into an electric signal, and a light amount control means for controlling the illumination means. A particular feature of the invention is that the illumination means is controlled according to a saturation characteristic and a frequency characteristic of the transducer unit.

Representative claim 1 is reproduced as follows:

1. An image reading apparatus comprising:

illumination means for directing light toward an original document;

a transducer unit for converting said light directed toward said original document and reflected therefrom to an electric signal; and

light amount control means for controlling an amount of light from said illumination means according to a saturation characteristic and a frequency characteristic of said transducer unit.

The examiner relies on the following references:

Arimoto	4,888,492	Dec. 19, 1989
Pelton et al. (Pelton)	5,281,800	Jan. 25, 1994
Ishida et al. (Ishida)	5,371,567	Dec. 06, 1994

Claims 1-14 and 20-24 stand rejected under 35 U.S.C. § 103(a). As evidence of obviousness the examiner offers Arimoto

in view of Ishida with respect to claims 1-14, 22 and 23, and Arimoto in view of Pelton with respect to claims 20, 21 and 24.

Rather than repeat the arguments of appellant or the examiner, we make reference to the brief and the answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellant's arguments set forth in the brief along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 1-14 and 20-24. Accordingly, we reverse.

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, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 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 Corp., 837 F.2d 1044, 1051, 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 Hosp. Sys., Inc. v. Montefiore Hosp., 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). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the

arguments. See Id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Only those arguments actually made by appellant have been considered in this decision. Arguments which appellant could have made but chose not to make in the brief have not been considered and are deemed to be waived by appellant [see 37 CFR § 1.192(a)].

We consider first the rejection of claims 1-14, 22 and 23 based on the teachings of Arimoto and Ishida. These claims stand or fall together in two different groups which are respectively headed by independent claims 1 and 8 [brief, page 5]. With respect to independent claim 1, the examiner cites Arimoto as teaching the claimed invention except for controlling the amount of light according to a frequency characteristic of the transducer unit. The examiner cites Ishida as teaching that the proper outputs of a transducer depend on a frequency characteristic of the transducer. The examiner finds that it would have been obvious to the artisan to modify the light controlling method of Arimoto according to a frequency characteristic of the transducer as taught by Ishida [answer, pages 4-5].

Appellant argues that contrary to the examiner's assertion, there is no determination made or control used in Ishida that is based on a frequency characteristic of the transducer. Thus, appellant argues that there is no suggestion in either reference of a method for measuring a frequency characteristic in order to provide a basis for adjusting the illumination [brief, pages 14-16].

The examiner responds that appellant is improperly attacking the references individually. The examiner repeats the findings of the rejection that Arimoto teaches a light control means and Ishida teaches that the proper output of a transducer depends on a frequency characteristic of the transducer [answer, pages 11-13].

We will not sustain the examiner's rejection of claims 1-7 and 22, which form the first group of claims, for essentially the reasons argued by appellant in the brief. We agree with appellant that Ishida provides no teaching or suggestion that the frequency characteristics of a transducer should be used in controlling an illumination means for directing light toward an original document. Although the examiner is correct that Arimoto teaches an illumination control means, there is no teaching within the applied prior art that the illumination means of

Arimoto should be controlled based on a frequency characteristic of the transducer in Arimoto. Since Ishida does not control light in any form, there is no basis to use any frequency characteristics, which might be suggested in Ishida, as a basis to control an illumination means of the type disclosed in Arimoto.

With respect to independent claim 8, the examiner cites Arimoto as teaching the claimed invention except for changing the amount of time for accumulating an amount of light at the transducer according to a frequency characteristic and a saturation characteristic of the transducer unit. The examiner cites Ishida as teaching that the proper outputs of a transducer would change according to a frequency characteristic of the transducer. The examiner finds that it would have been obvious to the artisan to modify the light controlling method of Arimoto by having the controlling means change the time for accumulating an amount of light at the transducer according to a frequency characteristic and saturation characteristic of the transducer as taught by Ishida [answer, pages 5-7].

Appellant argues that contrary to the examiner's assertion, Ishida fails to disclose or suggest controlling a time for accumulating an amount of light at the change unit according

to a frequency characteristic of the transducer. Thus, appellant argues that there is no suggestion in either reference of an accumulation time control means for controlling a time for accumulating an amount of light at the change unit according to a saturation characteristic and a frequency characteristic of the transducer unit [brief, pages 16-18].

The examiner responds by restating the findings of the rejection that Ishida teaches the idea of basing a light control on the frequency characteristics of the transducer [answer, pages 11-13].

We will not sustain the examiner's rejection of claims 8-14 and 23, which form the second group of claims, for essentially the reasons argued by appellant in the brief. We agree with appellant that Ishida provides no teaching or suggestion that the frequency characteristics of a transducer should be used in controlling an illumination means for directing light toward an original document for reasons discussed above.

We now consider the rejection of claims 20, 21 and 24 based on the teachings of Arimoto and Pelton. These claims stand or fall together in two different groups which are respectively headed by independent claims 20 and 21 [brief, page 6]. With respect to independent claim 20, the examiner cites Arimoto as

teaching the claimed invention except for controlling the amount of light according to an operational slew rate of the transducer unit. The examiner cites Pelton as teaching that the slew rate of a transducer is compromised by the amount of light being used during image scanning. The examiner finds that it would have been obvious to the artisan to modify the light controlling method of Arimoto to control the slew rate of the transducer as taught by Pelton [answer, pages 9-10].

Appellant argues that there is nothing in Pelton that suggests adjusting illumination based on transducer performance characteristics. Appellant notes that the slew capacitor of Pelton simply filters out signals with too high of a slew rate. Thus, appellant argues that there is no suggestion in either reference of controlling an amount of light according to an operational slew rate of the transducer unit [brief, pages 19-20].

The examiner responds by restating the findings of the rejection that Pelton teaches the idea that the slew rate of a transducer unit is compromised [answer, pages 13-14].

We will not sustain the examiner's rejection of claims 20 and 24, which are grouped together, for essentially the reasons argued by appellant in the brief. We agree with appellant that

the slew rate disclosed in Pelton has nothing to do with controlling an illuminator which produces light that is cast toward an original document. The applied prior art provides no basis for the artisan to control the light in Arimoto based on an operational slew rate of the transducer unit as claimed.

With respect to independent claim 21, the examiner cites Arimoto as teaching the claimed invention except for calculating the transducer's saturation levels according to an operational slew rate of the transducer. The examiner cites Pelton as teaching that the slew rate of a transducer is compromised by the amount of light being used during image scanning. The examiner finds that it would have been obvious to the artisan to modify the light controlling method of Arimoto to control the slew rate of the transducer as taught by Pelton [answer, pages 10-11].

Appellant argues that there is no suggestion in either reference of measuring slew rate of the transducer unit [brief, page 21].

The examiner responds by restating the findings of the rejection that Pelton teaches the claimed slew rate [answer, pages 13-14].

We will not sustain the examiner's rejection of claim 21, for essentially the reasons argued by appellant in the brief. We agree with appellant that there is no suggestion in either reference of measuring the slew rate of the transducer unit for reasons discussed above.

In summary, we have not sustained either of the examiner's rejections of the claims on appeal. Accordingly, the decision of the examiner rejecting claims 1-14 and 20-24 is reversed.

REVERSED

JERRY SMITH Administrative Patent Judge	)	
JOSEPH L. DIXON Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
ANITA PELLMAN GROSS Administrative Patent Judge	)	

JS:svt

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