

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte JOERG-SIEGFRIED BLECK  
AND MICHAEL GEBEL

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Appeal No. 1998-0292  
Application No. 08/209,633

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HEARD: March 9, 2000  
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Before JERRY SMITH, LALL, and FRAHM, Administrative Patent Judges.

LALL, Administrative Patent Judge.

This is a decision on appeal under 35 U.S.C. § 134 from the Examiner's final rejection<sup>1</sup> of claims 1 to 22, which constitute all the claims in the application.

The disclosed invention relates to a method for imaging an area of investigation by means of a source half-tone picture

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<sup>1</sup>An amendment after the final rejection was filed [paper no. 10] and was entered in the record [paper no. 11].

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of the area of investigation, the source half-tone picture being composed of individual picture elements, wherein the picture elements are allocated source gray scale values corresponding to the morphology of the area of investigation, and employing a framing mask operation which produces modified gray scale values from the source half-tone pictures as a function of a preassigned brightness value and a preassigned contrast value, which are fed to a display device. According to the invention, the preassigned contrast value is controlled as a function of the preassigned brightness value or the preassigned brightness value is controlled as a function of the preassigned contrast value. By this method, the source half-tone picture can be presented automatically free from artifacts with optimum brightness and/or maximum contrast following the frame mask operation. The invention is further illustrated by the following representative claim.

1. A method for imaging an area of investigation comprising the steps of:  
producing a source half-tone picture of an area of investigation, said source half-tone picture  
being composed of a plurality of individual picture elements;  
allocating respective source gray scale values to said picture elements, said source gray scale values corresponding to a morphology of said area of

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investigation;  
conducting a framing mask operation on each of said  
source gray scale values for producing  
modified gray scale values from each of said  
source gray scale values as a function of a  
preassigned brightness value and a contrast  
value;

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controlling said contrast value as a function of said  
preassigned brightness value; and  
feeding said modified gray scale values to a display  
device for displaying a modified gray scale  
value image of said area of investigation.

The Examiner relies on the following references:

Mayo, Jr. (Mayo)	4,789,831	Dec. 6, 1988
Burke	5,042,077	Aug. 20, 1991

Bleck, J.S., et al., "Artifact Resistant Grey Scale Windows in Clinical Ultrasound of the Liver," Book of Abstracts, 19th International Symposium on Acoustical Imaging, April 3-5, 1991, p. MB3/4-P5. (Bleck)

Claims 1, 2, 12 and 13 stand rejected under 35 U.S.C. § 102 as being anticipated by Burke. Claims 3 to 8 and 14 to 19 stand rejected under 35 U.S.C. § 103 over Burke and Bleck. Claims 9 to 11 and 20 to 22 stand rejected over Burke and Mayo.

Rather than repeat the arguments of Appellants and the Examiner, we make reference to the brief and the answer for the respective details thereof.

#### OPINION

We have considered the rejections advanced by the Examiner and the supporting arguments. We have, likewise, reviewed the Appellants' arguments set forth in the brief.

We affirm.

In our analysis, we are guided by the precedence of our

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reviewing court that the limitations from the disclosure are not to be imported into the claims. In re Lundberg, 244 F.2d 543, 113 USPQ 530 (CCPA 1957); In re Queener, 796 F.2d 461, 230 USPQ 438 (Fed. Cir. 1986). We are also mindful of the requirements of anticipation under 35 U.S.C. § 102. We must point out, however, that anticipation under 35 U.S.C. § 102 is established only when a single prior art reference discloses, either expressly or under the principles of inherency, each and every element of a claimed invention. See RCA Corp. V. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984), cert. dismissed, 468 U.S. 1228 (1984). Furthermore, only those arguments actually made by Appellants have been considered in making this decision. Arguments which Appellants could have made but chose not to make in the brief have not been considered [37 CFR § 1.192(a)].

Furthermore, we are guided by the general proposition that in an appeal involving a rejection under 35 U.S.C. § 103, an examiner is under a burden to make out a prima facie case of obviousness. If that burden is met, the burden of going forward then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined

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on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); 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).

#### Analysis

At the outset, we note that according to Appellants [brief, page 8], claims 1 to 11 stand or fall together, and claims 12 to 22 stand or fall together. Nevertheless, in the body of the brief, Appellants argue the rejections under 35 U.S.C. § 102 and § 103 separately, and we will treat those rejections accordingly.

We take claim 1 as the representative claim. The Examiner contends [answer, pages 3 to 4] that all the elements of claim 1 are shown by Burke. Appellants argue [brief, pages 8 to 9] that "[a] window is displaced ... over the histogram display in order to define the gray scale value region which should be presented in expanded form.... By contrast, in the subject matter of the claims on appeal, it is not just an excerpt of an image, but

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rather the entire image, which is subjected to an image mask operation ...." The Examiner argues [answer, pages 8 to 9], and we agree, that "claims 1 and 12 do not require the entire image to be subjected to the mask operation. As recited in the claims, the mask operation is conducted on gray scale values that correspond to a morphology of an area of investigation which is not necessarily considered to be the entire image."

Further, Appellants argue [brief, pages 9 to 10] that "[in Burke], [b]oth the contrast value and the brightness value with which the image mask operation is implemented are thus defined. In ... the claims on appeal, only one value (either the contrast value ... or the brightness) as in claim 1 is prescribed, while the other value is defined dependent on this prescribed value." The Examiner responds [answer, pages 9 to 12] that "[i]n fact, as mentioned previously, both the brightness and the contrast values recited in Appellants' claims must be defined prior to conducting the framing mask operation [id. 11]." We find this argument to be supported by the claimed step "conducting a framing mask operation ... as a function of a preassigned brightness value and a contrast value". Thus, it is necessary that both a value for brightness and a value for contrast have

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to be defined before this step can be carried out. The Examiner stresses the point by adding [id. 11] that "[t]he level and the width of the window 32 taught by Burke are not arbitrarily selected, rather they are controlled based on the histogram which suggests a selected range of intensity values (gray values) over which enhanced contrast is desired."

We are of the view that the Examiner has met the limitations of claim 1 as recited therein. During the prosecution of a patent application, the Patent and Trademark Office is required to give claims their "broadest reasonable interpretation", consistent with the specification. In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997). In our view, the Examiner has done just that in this case, and done it well.

Therefore, we sustain the anticipation rejection of claim 1 and its grouped claim 2 over Burke.

With respect to the other group of claims, we take claim 12. We note that claim 12 is similar to claim 1. Appellants and the Examiner have each argued claims 1 and 12 together. However, Appellants make one point specific to claim 12 [brief, page 9], i.e., "[i]n ... the claims on appeal, only one value

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(either the contrast value as in claim 12, or the brightness) ... is prescribed, while the other value is defined dependent on this prescribed value." (Emphasis added). The Examiner applies the same rationale to the rejection of claim 12 as for claim 1. We would like to additionally note that Burke's figure 9 also lends support to the Examiner's anticipation rejection. In figure 9, contrast is chosen at step 75 and the intensity is calculated at step 79 by taking contrast into account. Thus, we sustain the anticipation rejection of claim 12 and its grouped claim 13 over Burke.

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Claims 3 to 8 and 14 to 19

These claims are rejected under 35 U.S.C. § 103 over Burke and Bleck. Appellants again argue [brief, page 11] that “[in] the image mask operations described in the Bleck et al. article, the contrast value is not defined dependent on the brightness value, nor is the brightness value defined dependent on the contrast value, as is inherent in claims 3-8 ...”. We note that since the Examiner did not use Bleck to show this feature, Appellants’ argument is moot. Therefore, we sustain the obviousness rejection of claims 3 to 8 and 14 to 19 over Burke and Bleck.

Claims 9 to 11 and 20 to 22

These claims are rejected under 35 U.S.C. § 103 over Burke and Mayo. Appellants [brief, page 11] again repeat the same argument, i.e., “[t]he Mayo reference ... provides no teachings whatsoever regarding defining a contrast value dependent on the brightness value, or vis-a-versa.” Again, we note that since the Examiner did not use the Mayo reference for this teaching, Appellants’ argument is off the mark. Therefore, we sustain the obviousness rejection of claims 9 to 11 and 20 to 22 over Burke

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and Mayo.

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In conclusion, we have affirmed the decision of the Examiner rejecting claims 1 to 22.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR 1.136(a).

AFFIRMED

JERRY SMITH	)	
Administrative Patent Judge	)	
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	)	
	)	BOARD OF PATENT
PARSHOTAM S. LALL	)	APPEALS AND
Administrative Patent Judge	)	INTERFERENCES
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ERIC S. FRAHM	)	
Administrative Patent Judge	)	

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