

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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

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Appeal No. 2003-0670  
Application No. 09/119,891

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ON BRIEF

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Before KRASS, DIXON and BARRY, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-11.

The invention is directed to a lenticular screen adaptor used in controlling pixel addressing of a pixel display device to drive the display device as an N-view autostereoscopic display.

Representative independent claim 1 is reproduced as follows:

1. A method for controlling pixel addressing of a pixel display device to drive the display device as an N-view autostereoscopic display when a lenticular screen is overlaid and image pixel data for N discrete views to be interlaced is provided, the method comprising the steps:

obtaining data defining at least the lenticular screen lenticule pitch, the number of views N, and the lenticular screen position relative to the display device pixels;

applying a predetermined algorithm to derive, from the obtained data and for each display pixel, which of the N views is to be carried; and

for each display pixel, extracting the corresponding pixel data for the assigned view from the image pixel data provided.

The examiner relies on the following references:

Wood	6,023,263	Feb. 8, 2000 (filed Jun. 5, 1997)
Eichenlaub	6,157,424	Dec. 5, 2000 (filed Mar. 30, 1998)
Ferguson	6,184,969	Feb. 6, 2001 (102(e) date: Apr. 25, 1997)

Claims 1-11 stand rejected under 35 U.S.C. § 102(e) as anticipated by Wood.

Claims 1-11 stand further rejected under 35 U.S.C. § 103 as unpatentable over Eichenlaub and Ferguson.

Reference is made to the briefs (principal and supplemental) and answer for the respective positions of appellant and the examiner.

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OPINION

We reverse.

With regard to the rejection under 35 U.S.C. § 102(e), anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.), cert. dismissed, 468 U.S. 1228 (1984), citing Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026 (1984).

The examiner contends that Woods discloses each and every element of the instant claimed invention.

Independent claim 1 requires, inter alia, a step of:

obtaining data defining at least the lenticular screen lenticule pitch, the number of views N, and the lenticular screen position relative to the display device pixels

An algorithm is then applied to this obtained data in order to derive which of the N views is to be carried.

Independent claims 4 and 9 have similar recitations.

The examiner points to column 3, lines 21-56, of Wood for a

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teaching of this specific claim limitation. This portion of Wood discloses renderers and a z-buffer algorithm being used to deduce the nearest visible rendering primitive at each pixel. This rendering technique of Wood may cause the generation of differing views, but there is no indication therein that it performs this function by obtaining data defining at least the lenticular screen lenticule pitch, the number of views  $N$ , and the lenticular screen position relative to the display device pixels and then applying a predetermined algorithm, using this obtained data, to determine which of  $N$  views is to be carried.

In response to appellant's argument that Wood does not disclose this claimed limitation, the examiner argues that column 1, lines 18-24, and column 2, lines 58-67, of Wood teach obtaining data defining the lenticular screen lenticules pitch, i.e., the horizontal diameter of each lenticule, as this represents the lenticule pitch (see page 7 of the answer).

We have reviewed the cited portions of Wood and we fail to find any disclosure therein of obtaining data defining at least the lenticular screen lenticule pitch, the number of views  $N$ , and the lenticular screen position relative to the display device pixels, wherein this data is applied to a predetermined algorithm for determining which of  $N$  views is to be carried.

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In order to sustain a rejection under 35 U.S.C. § 102(e), the reference must clearly disclose each and every element of the claimed invention, without resorting to speculation. Now, it *may* be that Wood somehow obtains data defining at least the lenticular screen lenticule pitch, the number of views *N*, and the lenticular screen position relative to the display device pixels, and uses such data in a predetermined algorithm in order to determine which of the *N* views is to be carried, but we find no clear teaching of this, and the examiner's rationale, relying on bits and pieces of Wood, disclosing rendering techniques and providing different images, to provide for this specific claim limitation, amounts to nothing more than sheer speculation in our view. There is nothing in Wood clearly teaching or suggesting the gathering of the claimed data and the application of this specific data to a predetermined algorithm for determining which of *N* views to carry.

Accordingly, we will not sustain the rejection of claims 1-11 under 35 U.S.C. § 102(e).

We also will not sustain the rejection of claims 1-11 under 35 U.S.C. § 103 for similar reasons. That is, the aforementioned claim limitations are not found in the applied references.

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The examiner relies on Eichenlaub for teaching the claimed subject matter but for a user input device for controlling, selecting or inputting a specifying parameter for the LCD, as specified in claims 8 and 9 (see pages 5-6 of the answer). From the examiner's statement of the rejection, while Ferguson is applied in combination with Eichenlaub against all of the claims, it would appear that Ferguson is employed only against claims 8 and 9, which would leave one to believe that the examiner believes that Eichenlaub teaches all of the limitations of at least independent claims 1, 4 and 9.

Since the examiner failed to even address the limitation of obtaining data defining at least the lenticular screen lenticule pitch, the number of views N, and the lenticular screen position relative to the display device pixels and applying the data to an algorithm, the rejection of the claims under 35 U.S.C. § 103 is flawed on its face as no prima facie case of obviousness has been shown by the examiner.

In any event, the examiner responds to appellant's argument in this regard, at pages 7-8 of the answer. Specifically, the examiner contends that Eichenlaub discloses a screen display (Figure 8) comprising a lenticular screen (identifying 122 in Figure 8), including lenticules pitch, views N. L. R. and L, R (1

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and 8 of Figure 10C), which is considered to be a "number of views N." The examiner explains that the screen 122 "obviously is driven by the line drivers (154 of fig. 9), so the position of the lenticular screen obviously is relative to the display (fig. 8). In view of the discussion, Eichenlaub shows the step of obtaining data defining at least the lenticular screen lenticules pitch, the number of views N, and the lenticular screen position relative to the display device pixels (col. 41, lines 45-67)" (answer-pages 7-8).

First, we note that it is difficult to confirm what the examiner is alleging since there is no "col. 41" in Eichenlaub. Assuming that the examiner made a transposing error, and the examiner really meant to reference column 14, this column ends at line 58, so there is no "lines 45-67."

In any event, we agree with appellant that even if, arguendo, Eichenlaub teaches what the examiner alleges regarding a lenticular screen including lenticules pitch and the driving of a screen by line drivers, this is a far cry from teaching the claimed method of gathering, or obtaining, data defining the lenticular screen lenticule pitch (the examiner seems only to be implying that a "pitch" exists in the screen of Eichenlaub), the number of views N, and the lenticular screen position relative to

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the display device pixels, and then using this data in an algorithm for determining which of the N views is to be carried, as claimed.

Since neither Eichenlaub nor Ferguson discloses or suggests the aforementioned claim limitation, we will not sustain the rejection of claims 1-11 under 35 U.S.C. § 103 as no prima facie case of obviousness has been established.

We have not sustained the rejection of claims 1-11 under either 35 U.S.C. § 102(e) or under 35 U.S.C. § 103. Accordingly, the examiner's decision is reversed.

REVERSED

ERROL A. KRASS	)	
Administrative Patent Judge	)	
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JOSEPH L. DIXON	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
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	)	
	)	
LANCE LEONARD BARRY	)	
Administrative Patent Judge	)	

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