

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte ANTHONY C. LOWE and  
CHRISTOPHER C. PIETRZAK

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Appeal No. 96-1472  
Application No. 08/287,070<sup>1</sup>

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HEARD: May 4, 1999

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Before HAIRSTON, JERRY SMITH, and HECKER, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

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<sup>1</sup> Application for patent filed August 8, 1994. According to appellants, the application is a continuation of Application No. 08/085,512, filed June 30, 1993, now abandoned.

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This is an appeal from the final rejection of claims 1 through 10, 12, 13 and 15 through 27. In an Amendment After Final (paper number 23), claim 18 was amended.<sup>2</sup> According to the examiner (Answer, page 1), claim 13 as well as claims 11 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim. Thus, claims 1 through 10, 12 and 15 through 27 remain before us on appeal.

The disclosed invention relates to a scanner for angularly scanning a light beam. The scanner uses a shutter with an array of individually addressable shutter elements to convert a source of diverging light into the scanning light beam.

Claim 19 is illustrative of the claimed invention, and it reads as follows:

19. A scanner for angularly scanning a light beam, said scanner comprising:

a source of diverging light

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<sup>2</sup> The amendment to claim 18 had the effect of overcoming the indefiniteness rejection of claim 18 (paper number 12).

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a shutter disposed to interrupt a portion of said light, said shutter comprising an array of shutter elements, each element having a unique address, further wherein each element has a transparent state in which light from said light source is transmitted and an opaque state in which light from said light source is blocked; and

shutter drive circuit means coupled to said shutter elements for controlling the state of each of said shutter elements so as to provide a scanning light beam as an output of said shutter.

The references relied on by the examiner are:

Cooreman 1971	3,613,066	Oct. 12,
Okisu et al. (Okisu) 1992	5,159,187	Oct. 27,

Claims 1 through 10, 12 and 15 through 27 stand rejected under 35 U.S.C. § 103 as being unpatentable over Cooreman in view of Okisu.

Reference is made to the briefs and the answer for the respective positions of the appellants and the examiner.

#### OPINION

The obviousness rejection is reversed.

Cooreman discloses an input device in which the surface of table 1 is scanned with two monochromatic light beams produced by a laser light source 3. The two light beams are "very thin and of practically negligible divergency" (column

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2, lines 17 through 20). One light beam is produced by semireflecting mirror 4, mirror 5 and mirror 7. The other light beam is produced by semireflecting mirror 4 and mirror 6. When the light beams fall on pointer 2, the light beams are reflected back through mirrors 6 and 7 where they impinge light receivers 14 and 15, respectively (column 3, lines 1 through 8). A computer uses the outputs from the light receivers to determine the Cartesian coordinates (X and Y) of the pointer (column 3, lines 11 through 15).

The examiner acknowledges that Cooreman "does not explicitly disclose a shutter," but "suggests (col. 3, lines 52-55) that any means for scanning can be used in his device" (Answer, page 3). The examiner is of the opinion (Answer, page 3) that:

At the time that the invention was made, Okisu et al had shown that a shutter (col. 9, lines 4-12) can be used as a scanner. One of ordinary skill in the art having Okisu et al would have been motivated to eliminate moving parts in Cooreman by using the shutter teaching in Okisu et al.

Appellants argue (Brief, pages 4 and 5) that:

There is no way to combine the inventions [in the references] either individually or taken collectively to produce the present invention as claimed. First, the Cooreman device does not teach

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or suggest any method of using diverging light; in fact it expressly teaches away from the use of diverging light, repeatedly calling for a thin coherent beam. Nor does the Cooreman device use a shutter. Second, the shutter of Okisu, et al. is used in a non-analogous application (image reading) and it is not used for scanning in Okisu, et al.; it is only used for framing the field to be scanned. There is no teaching or suggestion to scan the shutter elements in Okisu, et al. Thus, an element of the invention as claimed, a shutter that provides "a scanning light beam as an output of said shutter," is absent from the references. And, modifying the shutter in Okisu, et al. to make his shutter into a scanning shutter would render the Okisu, et al. invention impractical or inoperable. There must be some suggestion in the cited art for making the modifications each requires and then for combining them. Appellants find them devoid of any such suggestions. In fact, they each teach away from the modification, and harm is either expressly taught or is a logical result of the combination.

We agree with appellants' arguments. Even if we assume for the sake of argument that it would have been obvious to one of ordinary skill in the art to use "any means for scanning" in Cooreman (Answer, page 3), the skilled artisan certainly would not have looked to Okisu for such a "means for scanning" teaching because the liquid crystal shutters 17, 62, 206 and 530 in Figures 2, 6, 10 and 14, respectively, of Okisu are all used as a light beam frame for positioning a document

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or for confirming a reading area on the document (column 6,  
lines 1 through 24), and not for scanning.

In summary, the obviousness rejection of claims 1 through  
10, 12 and 15 through 27 is reversed.

DECISION

The decision of the examiner rejecting claims 1 through  
10, 12 and 15 through 27 under 35 U.S.C. § 103 is reversed.

REVERSED

KENNETH W. HAIRSTON	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
JERRY SMITH	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
	)	
STUART N. HECKER	)	
Administrative Patent Judge	)	

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APJ HAIRSTON

APJ HECKER

APJ JERRY SMITH

DECISION: REVERSED  
Send Reference(s): Yes No  
or Translation (s)  
Panel Change: Yes No  
Index Sheet-2901 Rejection(s): \_\_\_\_\_

Prepared: July 27, 2000

Draft    Final

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OB/HD    GAU

PALM / ACTS 2 / BOOK  
DISK (FOIA) / REPORT