

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(2) is not binding precedent of the Board.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. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JACQUELINE M. DEANE

Appeal No. 95-3282
Application 07/758,149¹

ON BRIEF

Before THOMAS, KRASS, and BARRETT, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1 through 6, all of the claims pending in the application. The examiner now holds claim 4 to be directed to allowable subject matter, the claim being merely objected to. Accordingly, there is no longer a rejection of claim 4 before us on appeal.

The invention is directed to a method and apparatus for image enhancement.
Representative independent claim 1 is reproduced as follows:

¹ Application for patent filed September 12, 1991.

1. A method of enhancing a multi-coloured image, defined by a plurality of colour components represented by electrical signals respectively representing the value of each colour component of each pixel of a first resolution version of the image, to produce an enhanced image, the method comprising, for said each colour component of each pixel, obtaining a fringe value by determining the difference between the component values at the first resolution and at a second, lower resolution; determining for each pixel the length of a vector whose components are defined by values related to the fringe values of that pixel; and modifying one of each original colour component value and a value derived from each original colour component value by an amount related to the respective fringe value in accordance with the relationship of said vector length with a threshold to produce said enhanced image.

The examiner relies on the following reference:

Ellis et al. (Ellis) 4,724,477 Feb. 9, 1988

Claims 1 through 3, 5 and 6 stand rejected under 35 U.S.C. § 102(b) as anticipated by Ellis. Claims 1 through 6 were finally rejected under 35 U.S.C. § 101 as being directed to nonstatutory subject matter but this rejection has been withdrawn by the examiner in response to a remand by the Board and it is no longer before us.

Rather than reiterate the arguments of appellant and the examiner, reference is made to the briefs and answers for the respective details thereof.

OPINION

Anticipation, under 35 U.S.C. § 102, requires that each element of the claim in issue be found, either expressly described or under principles of inherency, in a single prior art reference. Kalman v. Kimberly-Clark Corp., 713

F.2d 760, 771, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026 (1984).

We do not find, in Ellis, the presence of determining "for each pixel the length of a vector whose components are defined by values related to the fringe values of that pixel," as recited in independent claims 1 and 5. The examiner points us to column 6, lines 14-39 and Figure 2 of Ellis for such a teaching. However, our review of the cited portion of the reference reveals no teaching of determining the length of a vector for each pixel wherein vector components are defined by values related to fringe values of that pixel.

The examiner appears to have a problem with the breadth of the term "related to the fringe values" and argues that the "black fringe calculation" of Ellis anticipates "this broad claim language" [principal answer, top of page 17]. The language "related to the fringe values" does not stand in a vacuum. It is part of, and gives extra meaning to, the determination "for each pixel the length of a vector whose components are defined by values related to the fringe values of that pixel." Yet, the examiner appears to have given little, if any, weight to the fact that it is the "length of a vector" which is being determined, the components of that vector being defined by values related to

the fringe values of a pixel. Since Ellis fails to teach or suggest anything regarding the determination of a vector length, it is clear that Ellis fails to teach each and every element of the claimed subject matter. As such, Ellis cannot anticipate the claimed subject matter under 35 U.S.C. § 102(b).

Accordingly, the examiner's decision is reversed.

REVERSED

| | | |
|------------------------------|---|-----------------|
| James D. Thomas |) | |
| Administrative Patent Judge) |) | |
| |) | |
| |) | |
| Errol A. Krass |) | BOARD OF PATENT |
| Administrative Patent Judge) |) | APPEALS AND |
| |) | INTERFERENCES |
| |) | |
| Lee E. Barrett |) | |
| Administrative Patent Judge) |) | |

Appeal No. 95-3282
Application No. 07/758,149

Sughrue, Mion, Zinn, Macpeak and Seas
2100 Pennsylvania Ave., N.W.
Washington, DC 20037

