

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte PAUL E. JOHNSON

Appeal No. 2005-0644
Application No. 09/804,522

ON BRIEF

Before HAIRSTON, DIXON, and NAPPI, Administrative Patent Judges.
HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 through 20.

The disclosed invention relates to the use of an LED illumination source device in a flow particle detection device. An optical element collects nearly all of the light from the LED, and concentrates the collected light at a selected volume within a flow sample stream.

Claim 1 is illustrative of the claimed invention, and it reads as follows:

1. An LED illumination source device for use in a flow particle detection device comprising:

an LED for providing light at a selected wavelength; and

an optical element for collecting nearly all of the light from the LED and concentrating the collected light at a selected volume within a flow sample stream.

The references relied on by the examiner are:

Martin et al. (Martin)	4,573,796	Mar. 4, 1986
Maekawa et al. (Maekawa)	5,644,388	July 1, 1997
Ross et al. (Ross)	5,877,863	Mar. 2, 1999

Claims 1, 2, 6 through 8 and 13 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Maekawa.

Claims 3, 4, 9 through 12 and 14 through 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Maekawa in view of Martin.

Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Maekawa in view of Ross.

Reference is made to the brief and the answer for the respective positions of the appellant and the examiner.

OPINION

We have carefully considered the entire record before us, and we will reverse the anticipation rejection of claims 1, 2, 6 through 8 and 13, and reverse the obviousness rejections of claims 3 through 5, 9 through 12 and 14 through 20.

Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.); cert dismissed, 468 U.S. 1228 (1984); W.L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

According to the examiner (answer, pages 3 and 4):

With regard to Claims 1, 2, and 6, Maekawa *et al.* discloses an LED illumination source device for use in a flow particle detection device, such as in a flow cytometer (See Figures 1, 3, 5, 6, 9; col. 3, line 56-col. 5, line 62), comprising an LED (See 16 in Figure 5; 29 in Figure 9; col. 5, lines 6-13) for providing light at a selected wavelength, and an optical element (See 30, 21 in Figure 9) for collecting nearly all of the light from the LED and concentrating the collected light at a selected volume within a flow sample stream. Maekawa *et al.* additionally discloses the optical element comprising a collecting element (See 30 in Figure 9) and a focusing element (See 21 in Figure 9).

Appellant argues (brief, page 4) that:

The single reference cited (U.S. Pat. No. 5,644,388 to Maekawa *et al.*) by the Examiner does not show, teach or suggest every element of the rejected claims, directly or inherently. Specifically if [sic, it] does not show “an optical element for collecting nearly all of the light from the LED . . .” as is specified in each independent claim.

Appellant additionally argues (brief, page 4) that an optical element spaced from a light source will collect nearly all of the light incident upon it; however, it will not “collect nearly all of the light from the light source” as required by the claims on appeal.

We agree with appellant's arguments. All that Maekawa discloses is a mirror 17 for collecting light from LED 16 (Figure 5) or lenses 21, 30 and 31 for collecting light from LED 29 (Figure 9). Maekawa is silent as to whether the mirror and lenses collect "nearly all of the light from the LED" as recited in the claims on appeal. The examiner's comment (answer, page 7) that Maekawa "does reasonably suggest an LED illumination source device, including an optical element for collecting nearly all of the light from the LED" would be helpful in an obviousness rejection, but not an anticipation rejection. The record before us is completely devoid of any evidence to support the examiner's assertions (answer, pages 8 and 9) that Maekawa "intends the LED illumination source disclosed in the flow particle detection device to direct a majority, if not all, of its emitted light toward the collimating lens 30 such that the collimating lens 30 collects nearly all of the light from the LED illumination source," and that "[t]he highly collimated, highly directional nature of the emitted light from the illumination light source (See 29 in Figure 9) allows the collimating lens (See 30 in Figure 9) to collect nearly all of the light from that illumination light source." We especially disagree with the examiner's assertion (answer, page 9) that "[c]laims 1 and 7 fail to set forth any distinguishing structural or positional limitations . . . that allow an optical element to collect nearly all the light from an LED." The claims on appeal broadly recite "an optical element" for accomplishing such a task.

In summary, the anticipation rejection of claims 1, 2, 6 through 8 and 13 is reversed because the examiner has not provided extrinsic evidence, rather than opinion, that makes clear that “the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.” In re Robertson, 169 F.3d 743, 744-45, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). Inherency “may not be established by probabilities or possibilities.” In re Oelrich, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981).

The obviousness rejections of claims 3 through 5, 9 through 12 and 14 through 20 are reversed because the references to Martin and Ross fail to cure the noted shortcoming in the teachings of Maekawa.

DECISION

The decision of the examiner rejecting claims 1, 2, 6 through 8 and 13 under 35 U.S.C. § 102(e) is reversed, and the decision of the examiner rejecting claims 3 through 5, 9 through 12 and 14 through 20 under 35 U.S.C. § 103(a) is reversed.

REVERSED

KENNETH W. HAIRSTON
Administrative Patent Judge

JOSEPH L. DIXON
Administrative Patent Judge

ROBERT E. NAPPI
Administrative Patent Judge

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