

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 NIGEL D. YOUNG

Appeal No. 2004-2288
Application No. 10/084,723

ON BRIEF

Before PAK, WARREN, and KRATZ, *Administrative Patent Judges*.
PAK, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 1 through 13. Claims 14 and 15, the only other claim pending in the above-identified application, were not rejected by the examiner. We have jurisdiction pursuant to 35 U.S.C. §§ 6 and 134.

Claims 1 and 2 are representative of the subject matter on appeal and read as follows:

1. A flexible matrix array device comprising

a thin film matrix circuit carried on the surface of a flexible substrate

which matrix circuit includes:

semiconductor devices arranged in a regular array and occupying respective first areas of the substrate, and

pixel electrodes correspondingly coupled to each of the semiconductor devices and occupying respective second areas of the substrate;

wherein

the substrate is configured such that flexing of the substrate occurs more readily at the second areas than at the first areas.

2. A curved matrix array device comprising

a thin film matrix circuit carried on the surface of a substrate

which matrix circuit includes:

semiconductor devices arranged in a regular array and occupying respective first areas of the substrate, and

pixel electrodes correspondingly coupled to each of the semiconductor devices and occupying respective second areas of the substrate;

wherein

the substrate is configured such that curvature of the device is accommodated substantially by deformation at the substrate at the second areas.

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The examiner relies on the following prior art references:

Shanks et al. (Shanks)	5,821,688	Oct. 13, 1998
Nishizawa et al. (Nishizawa)	6,323,832 B1	Nov. 27, 2001
		(Filed Nov. 15, 1993)

The appellant relies on the following literature evidence:

Merriam-Webster's Collegiate® Dictionary, p. 371 (10th Ed.,
Springfield, MA 2001)(hereinafter referred to as "Merriam").

CZT Detector Development (visited Mar. 7, 2004) <<http://www.harvard.edu/EXIST/instruments/czt.html>> (hereinafter referred to as "Harvard").

Active Matrix LCDs (visited Mar. 2, 2004)
<http://www.wtec.org/loyola/displays/c3_s3.htm> (hereinafter referred to as "Loyola").

Basic Concept of TFT-LCD (visited Feb. 29, 2004)
<<http://tftlcd.kyunghee.ac.kr/research/poly-Si/chapter1.html>>
(hereinafter referred to as "Kyunghee").

Learn About LCD TV and TFT LCD Displays, (visited Feb. 29, 2004)
<http://www.netbored.com/classroom/what_is_tft_lcd.htm>
(hereinafter referred to as "Netbored").

TFT LCD semiconductors, (visited Mar. 2, 2004)
<<http://www.sosimple.com>> (Samsung Electronics, USA
2002)(hereinafter referred to as "Samsung").

Hayakawa, *ILA®/D-ILA™ Super Projectors for the Present and the Future*, pages unnumbered (Victor Co. of Japan, Ltd., (JVC), unknown publication date).

Studies for Future Broadcasting Services and Fundamental Technologies/Imaging Devices, pp. 49-51 (NHK STRL Annual Report, 2002)(hereinafter referred to as "NHK").

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Claims 1 through 3, 6, 8 through 11 stand rejected under 35 U.S.C. § 102(e) as anticipated by the disclosure of Nishizawa. Claims 4 and 5 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the disclosure of Nishizawa. Claims 7 and 12 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combined disclosures of Nishizawa and Shanks.

We have carefully reviewed the claims, specification and applied prior art, including all of the arguments and evidence advanced by both the examiner and appellant in support of their respective positions. This review has led us to conclude that the examiner's aforementioned rejections are not well founded. Accordingly, we will not sustain the examiner's aforementioned rejections for essentially those reasons set forth in the Brief and the Reply Brief. We add the following primarily for emphasis and completeness.

The examiner takes the position that Nishizawa teaches
(Answer, pages 3-4):

3. Referring to claim 1, a flexible matrix array device comprising: a thin film matrix circuit carried on the surface of a flexible substrate, (Figure 3b #3), which matrix circuit, (Figure 1), includes semiconductor devices, (Figure 3b # 1a, 2a, 3a, & 4a[,] Col. 2[,] Lines 24-32), arranged in a regular array and occupying respective first areas, (Figure 3b examiner's label #11), of the substrate, (Figure 3b #3), and pixel electrodes, (Figure 1 #2), correspondingly coupled to each of the semiconductor

devices, (Figure 1 & 3b # 1a, 2a, 3a, & 4a, Col. 2[,] Lines 24-32), and occupying respective second areas, (Figure 3b examiner's label #10), of the substrate, (Figure 3b #3); wherein the substrate, (Figure 3b #3), is configured such that flexing of the substrate, (Figure 3b #3) occurs more readily at the second areas, (Figure 3b examiner's label #10), than at the first areas, (Figure 3b examiner's label #11).

4. Referring to claim 2, [a] curved matrix array device comprising a thin film matrix circuit, carried on the surface of a substrate, (Figure 3b #3), which matrix circuit, (Figure 1), includes semiconductor devices, (Figure 3b # 1a, 2a, 3a, & 4a[,] Col. 2[,] Lines 24-32), arranged in a regular array and occupying respective first areas, (Figure 3b examiner's label #11), of the substrate, (Figure 3b #3), and pixel electrodes, (Figure 1 #2), correspondingly coupled to each of the semiconductor devices, (Figure 1 & 3b # 1a, 2a, 3a, & 4a[,] Col. 2[,] Lines 24-32), and occupying respective second areas, (Figure 3b examiner's label #10), of the substrate, (Figure 3b #3); wherein the substrate, (Figure 3b #3), is configured such that curvature of the device is accommodated substantially by deformation at the substrate, (Figure 3b #3), at the second areas, (Figure 3b[,] examiner's label #10).

The appellant argues that element 2 of Figure 1 in Nishizawa is a wire, not the claimed pixel electrode. In response to this argument, the examiner asserts that the claimed pixel electrode embraces the wire taught in Nishizawa. The dispositive question is, therefore, whether the claimed pixel electrode, as properly interpreted, encompasses the wire taught in Nishizawa. On this record, we answer this question in the negative.

As a general rule, the words in a claim are given their broadest reasonable meaning **consistent** with the specification

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during proceedings before the U.S. Patent and Trademark Office. See *In re Etter*, 756 F.2d 852, 858, 225 USPQ 1, 5 (Fed. Cir. 1985)(*en banc*) (Claims are given the broadest reasonable interpretation consistent with the specification); *In re Cohn*, 438 F.2d 989, 993, 169 USPQ 95, 98 (CCPA 1971)("No claim may be read apart from and independent of the supporting disclosure on which it is based"). The words in a claim, however, are given the special meaning intended by the inventor if such intent is apparent from the specification. *In re Paulsen*, 30 F.3d 1475, 1479-80, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994); *Intellical, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1387, 21 USPQ2d 1383, 1386 (Fed. Cir., 1992).

Applying the above precedents to the present situation, we determine that the claimed pixel electrode does not encompass the wire taught by Nishizawa. As is apparent from page 5, line 31, to page 6, line 7, of the specification, the claimed pixel electrode is defined differently from the wire taught by Nishizawa. Specifically, the specification, at page 5, line 31, to page 6, line 7, states:

Each pixel is arranged adjacent the intersection of respective ones of sets of row and column address conductors 14 and 16 to which, in use, selection (gating) and data signals are supplied respectively by a peripheral drive circuit (not shown) to **drive the**

pixels and cause their display elements to produce desired display outputs.

Referring to Figure 2, the sets of address conductors 14 and 16, the TFTs 12 and individual ***pixel (display element) electrodes***, 18, together form a thin film active matrix circuit which is carried on the flat surface of a substrate 20 of flexible and compliant polymer material [Emphasis added.]

In other words, the specification clearly indicates that the claimed pixel electrode is a display element capable of producing a desired display output.

Having interpreted the claimed pixel electrode as indicated *supra*, we concur with the appellant that the examiner has not demonstrated that Nishizawa teaches placing the claimed pixel electrode at substrate areas different from and flexible than substrate areas where semiconductor devices are located. Nor has the examiner pointed to any motivation, suggestion or teaching in Nishizawa that would have led one of ordinary skill in the art to place the claimed pixel electrode at substrate areas different

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from and flexible than substrate areas where semiconductor devices are located.¹ Thus, for the reasons stated in the Brief, Reply Brief and above, we reverse each of the foregoing rejections.²

REVERSED

CHUNG K. PAK)	
Administrative Patent Judge)	
)	
)	
)	BOARD OF PATENT
CHARLES F. WARREN)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
)	
)	
PETER F. KRATZ)	
Administrative Patent Judge)	

CKP:hh

¹ The examiner has not relied on Shanks to teach the location of the claimed pixel electrode.

² We need not discuss the literature evidence relied upon by the appellant since the specification provides the meaning of the "pixel electrode" recited in claims 1 and 2.

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