

FORM PTO-122 (REV. 12-87)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	
TITLE REPORT		PAPER NO. 16	
		A. APPLICATION FILE DATA	
1. SERIAL NO. 07/656,845		2. FILED 2-19-91	
3. INVENTOR(S)—FULL NAME(S) Yuzuru Kanemori, Miki: Katayama, Kiyoshi Nakazawa, Hiroaki Kato, Kozo Yano, Naofumi Kondo, Hiroshi Fujiki, Toshiki Fujihara, Hidemori Negoto, Masabu Takahara			
4. DIVISION OF			
5. CONTINUATION OF			
6. REISSUE OF			
7. SUBSTITUTE OF			
B. ASSIGNMENT RECORD DATA			
The assignment records reveal that the Title appears to be vested in:			
<input type="checkbox"/> (1.) Inventor(s) <input type="checkbox"/> (2.) As endorsed <input type="checkbox"/> (3.) As the record now stands, the patent, when granted, will issue in the name of the inventor(s). <input checked="" type="checkbox"/> (4.) Other Sharp Kabushiki Kaisha			
EXAMINED UP TO AND INCLUDING		THIS CERTIFICATE DATED	
		5-10-93	
BRANCH CHIEF OF ASSIGNMENT SEARCH BRANCH		Shirley M. Royall	

LSE

SHC 001659

PATENT NUMBER:
SERIAL NUMBER: 07/656845
TITLE: ACTIVE MATRIX DISPLAY DEVICE AND A METHOD OF MANUFACTURING THE
SAME

ISSUE DATE: 00/00/00
FILING DATE: 02/19/91

APPLICANT: KANEMORI, YUZURU ; KATAYAMA, MIKIO
NAKAZAWA, KIYOSHI ; KATO, HIROAKI ; YANO, KOZO
KONDO, NAOFUMI ; FUJIKI, HIROSHI
FUJIHARA, TOSHIAKI ; NEGOTO, HIDENORI
TAKAHAMA, MANABU

REEL: 5607 FRAME: 0752 MAILROOM DT: 02/19/91 NEW APP FIL RCPT DT: 00/00/00
DATE RECORDED: 02/19/91 NUMBER OF PAGES: 005

ASSIGNOR: KANEMORI, YUZURU

EXC DATE: 12/27/90
KATAYAMA, MIKIO

EXC DATE: 12/27/90
NAKAZAWA, KIYOSHI

EXC DATE: 12/27/90
KATO, HIROAKI

EXC DATE: 12/27/90
YANO, KOZO

EXC DATE: 12/27/90
KONDO, NAOFUMI

EXC DATE: 12/27/90
FUJIKI, HIROSHI

EXC DATE: 12/27/90
FUJIHARA, TOSHIAKI

EXC DATE: 12/27/90
NEGOTO, HIDENORI

EXC DATE: 12/27/90
TAKAHAMA, MANABU

EXC DATE: 12/27/90
ASSIGNEE: SHARP KABUSHIKI KAISHA, 22-22, NAGAIKE-CHO, ABENO-KU, OSAKA 54
JAPAN

BRIEF:

ASSIGNMENT OF ASSIGNORS INTEREST.
RETURN ADDRESS: NIXON AND VANDERHYE
2200 CLARENDON BLVD, 14TH FLOOR
ARLINGTON, VA 22201

NO MORE INFORMATION FOR THIS SERIAL NUMBER

SHC 001660

All communications respecting this case should identify it by number and names of parties.



**U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: **BOX INTERFERENCE**
Commissioner of Patents and Trademarks
Washington, D.C. 20231

Telephone: (703)557-4007
Facsimile: (703)557-8642

MAILED

AUG 10 1993

PAI. & I.M. OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Applicants: Kanemori et al
Serial No.: 07/656,845
Filed: February 19, 1991
For: LIQUID CRYSTAL DISPLAY
ELEMENT AND METHOD FOR
TREATING DEFECTIVE PIXELS
THEREIN

Accorded Benefit of: Japan -
2-121787, filed 05/11/90;
2-121788, filed 05/11/90;
2-125191, filed 05/14/90;
2-146857, filed 06/04/90

The case referred to above has been forwarded to the Board of Patent Appeals and Interferences because it is adjudged to interfere with other cases hereafter specified. Attention is directed to the fact that this interference is declared pursuant to 37 CFR 1.601 et seq., effective February 11, 1985 (49 F.R. 48416. 1050 O.G. 385). The interference is designated as No. 103,192.

By direction of the Commissioner of Patents and Trademarks and as required by 35 USC 135(c), notice is hereby given the parties of the requirement of the law for filing in the Patent and Trademark Office a copy of any agreement "in connection with or in contemplation of the termination of the interference."

The cases involved in this interference are:

Junior Party

Patentees: Yasuhiro Ukai, Tomihisa Sunata and Teizou Yukawa

Address: 8-5-4, Kasugadai, Nishi-ku, Kobe-shi, Hyogo, Japan
3-26-12, Aoyama, Shijimicho, Miki-shi, Hyogo, Japan
Seishinryo A-204, 4-13-5, Koujidai, Nishi-ku, Kobe-shi,
Hyogo, Japan

Serial No.: 07/695,912, filed 05/06/91, now Patent No. 5,121,236,
issued 06/09/92

For: LIQUID CRYSTAL DISPLAY ELEMENT AND METHOD FOR TREATING
DEFECTIVE PIXELS THEREIN

Assignee: Hosiden Corporation, Osaka, Japan, A Corporation of
Japan

Attorneys of Record: Elliott I. Pollock, George Vande Sande,
Robert R. Priddy, Burton A. Amernick, Stanley B. Green,
Richard Wiener, Townsend M. Belser, Jr., Morris Liss,
Martin Abramson, George Pettit, Dean E. Carlson, Louis
Woo and Elzbieta Chlopecka

Associate Attorney: None

Accorded Benefit of: None

Address: Pollock, Vande Sande & Priddy
P.O. Box 19088
Washington, DC 20036

Senior Party

Applicants: Yuzurj Kanemori, Mikio Katayama, Kiyoshi Nakazawa,
Hiroaki Kato, Kozo Yano, Naofumi Kondo, Hiroshi
Fujiki, Toshiaki Fujihara, Hidenori Negoto, Manabu
Takahama

Address: 2613-1, Ichinomoto-cho, Tenri-shi, Nara-ken, Japan 632
1879-51-704, Tawaraguchi-cho, Ikoma-shi, Nara-ken, Japan
630-02
1-12-18, Emisaka, Fujiidera-shi, Osaka, Japan 583
1-9-4, Tezukayama, Nara-shi, Nara-ken, Japan 631

Serial No. 656,845

-3-

34-5, Izumihara-cho, Yamatokoriyama-shi, Nara-ken, Japan
639-11
4-6-21, Wakaba-dai, Nara-shi, Nara-ken, Japan 631
2366, Kanaoka-cho, Sakai-shi, Osaka, Japan 591
1-8-29, Uryudou, Higashiosaka-shi, Osaka, Japan 578
950-1, Tawaraguchi-cho, Ikoma-shi, Nara-ken, Japan
630-02
2613-1, Ichinomoto-cho, Tenri-shi, Nara-ken, Japan 632

Serial No.: 07/656,845, filed 02/19/91

For: LIQUID CRYSTAL DISPLAY ELEMENT AND METHOD FOR TREATING
DEFECTIVE PIXELS THEREIN

Assignee: Sharp Kabushiki Kaisha, Osaka 54, Japan

Attorneys of Record: Arthur R. Crawford, Larry S. Nixon, Robert
A. Vanderhye, James T. Hosmer, Robert W. Faris, Richard
G. Besha, Mark E. Nusbaum, Michael J. Keenan, Bryan H.
Davidson, Stanley C. Spooner, and Leonard C. Mitchard

Associate Attorneys: None

Accorded Benefit of: Japan - 2-121787, filed 05/11/90; 2-121788
filed 05/11/90; 2-125191 filed 05/14/90; 2-146857,
filed 06/04/90

Address: Nixon & Vanderhye
2200 Clarendon Blvd., 14th Floor
Arlington, VA 22201

SHC 001663

Count 1

An active matrix display device comprising:

a pair of insulating substrates at least one of which is light transmitting;

scanning lines and signal lines arranged orthogonally on one of said pair of substrates; and

pixel electrodes each connected to an adjacent scanning line and an adjacent signal line via a switching element,

a conductive layer disposed under said adjacent signal line and said pixel electrode and extending therebetween;

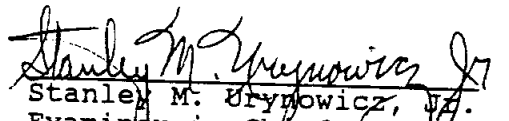
an insulating film interposed between said conductive layer and said adjacent signal line, and between said conductive layer and said pixel electrode, respectively; and

a conductive piece formed between said pixel electrode and said insulating film and overlapping said conductive layer for facilitating a conductive connection between said conductive layer and said pixel electrode, said conductive layer facilitating another conductive connection between said conductive layer and said adjacent signal line under a defective condition of said switching element.

The claims of the parties which correspond to this count are:

Ukai et al: Claims 1-10 and 14-17.

Kanemori et al: Claims 8-11 and 15.


Stanley M. Brynowicz, Jr.
Examiner-in-Chief
(703) 557-4019

SMU/raj

SHC 001664

INTERFERENCE DIGEST

Interference No. 103,192 Paper No. 18

Name, Yuzuri Kanemori et al

Serial No. 07/656,845 Patent No. _____

Title, LIQUID CRYSTAL DISPLAY ELEMENT AND METHOD FOR TREATING
DEFECTIVE PIXELS THEREIN

Filed, February 19, 1991

Interference with Yasuhiro Ukai et al

DECISION ON MOTIONS

Examiner-in-Chief, _____ Dated, _____

FINAL DECISION

Board of Patent Appeals and Interferences, favorable Dated, 2/1/94

Court, _____ Dated, _____

REMARKS

SHC 001665



UNITED STATES DEPARTMENT OF COMMERCE
 Patent and Trademark Office
 Address: COMMISSIONER OF PATENTS AND TRADEMARKS
 Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
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07/656,845 02/19/91 KANEMORI

EXAMINER

TRICE, R

ART UNIT	PAPER NUMBER
----------	--------------

NIXON AND VANDERHYE P.C.
 1100 NORTH GLEBE ROAD
 8TH FLOOR
 ARLINGTON, VA. 22201-4714

E5M1/0215

2515

DATE MAILED:

19

02/15/94

NOTICE OF ALLOWABILITY

PART I.

1. This communication is responsive to the amendment filed 2/2/93
2. All the claims being allowable. PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice Of Allowance And Issue Fee Due or other appropriate communication will be sent in due course.
3. The allowed claims are 8-15 are acceptable.
4. The drawings filed on _____ are acceptable.
5. Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has been received. [] not been received. [] been filed in parent application Serial No. _____ filed on _____
6. Note the attached Examiner's Amendment.
7. Note the attached Examiner Interview Summary Record, PTOL-413.
8. Note the attached Examiner's Statement of Reasons for Allowance.
9. Note the attached NOTICE OF REFERENCES CITED, PTO-892.
10. Note the attached INFORMATION DISCLOSURE CITATION, PTO-1449.

PART II.

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" indicated on this form. Failure to timely comply will result in the ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

1. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
2. APPLICANT MUST MAKE THE DRAWING CHANGES INDICATED BELOW IN THE MANNER SET FORTH ON THE REVERSE SIDE OF THIS PAPER.
 - a. Drawing informalities are indicated on the NOTICE RE PATENT DRAWINGS, PTO-948, attached hereto or to Paper No. 3. CORRECTION IS REQUIRED.
 - b. The proposed drawing correction filed on _____ has been approved by the examiner. CORRECTION IS REQUIRED.
 - c. Approved drawing corrections are described by the examiner in the attached EXAMINER'S AMENDMENT. CORRECTION IS REQUIRED.
 - d. Formal drawings are now REQUIRED.

Any response to this letter should include in the upper right hand corner, the following information from the NOTICE OF ALLOWANCE AND ISSUE FEE DUE: ISSUE BATCH NUMBER, DATE OF THE NOTICE OF ALLOWANCE, AND SERIAL NUMBER.

Attachments:

- Examiner's Amendment
- Examiner Interview Summary Record, PTOL-413
- Reasons for Allowance
- Notice of References Cited, PTO-892
- Information Disclosure Citation, PTO-1449
- Notice of Informal Application, PTO-152
- Notice re Patent Drawings, PTO-948
- Listing of Bonded Draftsmen
- Other

William L Sikes
 WILLIAM L SIKES
 SUPERVISORY PATENT EXAMINER
 GROUP 2500



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

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E5M1/0215

NIXON AND VANDERHYE P.C.
1100 NORTH GLEBE ROAD
8TH FLOOR
ARLINGTON, VA. 22201-4714

**NOTICE OF ALLOWANCE
AND ISSUE FEE DUE**

- Note attached communication from the Examiner
 This notice is issued in view of applicant's communication filed

SERIES CODE/SERIAL NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
07/656,845	02/19/91	008	TRICE, R	2515 02/15/94
First Named Applicant		KANEMORI, YUZURU		

TITLE OF INVENTION LIQUID CRYSTAL DISPLAY ELEMENT AND METHOD FOR TREATING DEFECTIVE PIXELS THEREIN (AS AMENDED)

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
3 829-61	359-059.000	V06	UTILITY	NO	\$1170.00	05/16/94

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY Status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the Status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the Status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

- II. Part B of this notice should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by a charge to deposit account, Part B should be completed and returned. If you are charging the ISSUE FEE to your deposit account, Part C of this notice should also be completed and returned.
- III. All communications regarding this application must give series code (or filing date), serial number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees.

PART B - ISSUE FEE TRANSMITTAL

1170-142 B

MAILING INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE. Blocks 2 through 6 should be completed where appropriate. All other correspondence including the Issue Fee Receipt, the Patent, advanced orders and notification of maintenance fees will be mailed to addressee entered in Block 1 unless you direct otherwise, by: (a) specifying a new correspondence address in Block 3 below; or (b) providing the PTO with a separate "NEW ADDRESS" for maintenance fee notifications with the payment of Issue Fee or thereafter. See reverse for Certificate of Mailing.

<p>1. CORRESPONDENCE ADDRESS</p> <p style="text-align: center;">ESM1/0215</p> <p>NIXON AND VANDERHYE P.C. 1100 NORTH GLEBE ROAD 8TH FLOOR ARLINGTON, VA. 22201-4714</p>	<p>2. INVENTOR(S) ADDRESS CHANGE (Complete only if there is a change)</p> <p>INVENTOR'S NAME _____</p> <p>Street Address _____</p> <p>City, State and ZIP Code _____</p> <p>CO-INVENTOR'S NAME _____</p> <p>Street Address _____</p> <p>City, State and ZIP Code _____</p> <p><input type="checkbox"/> Check if additional changes are on reverse side</p>
---	--

SERIES CODE/SERIAL NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
07/656,845	02/19/91	008	TRICE, R	2515 02/15/94
First Named Applicant	KANEMORI, YUZURU			

TITLE OF INVENTION: LIQUID CRYSTAL DISPLAY ELEMENT AND METHOD FOR TREATING DEFECTIVE PIXELS THEREIN (AS AMENDED)

ATTYS DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
829-61	352-059.000	V06	UTILITY	NO	\$1,170.00	05/16/94

<p>3. Further correspondence to be mailed to the following:</p>	<p>4. For printing on the patent front page, list the names of not more than 3 registered patent attorneys or agents OR alternatively, the name of a firm having as a member a registered attorney or agent. If no name is listed, no name will be printed.</p> <p style="text-align: right;">Nixon & Vanderhve P.C.</p> <p style="text-align: right;">2 _____</p> <p style="text-align: right;">3 _____</p>
---	--

090 BA 05/13/94 07656845

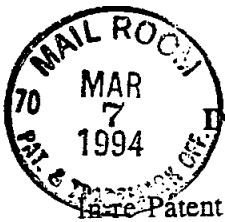
DO NOT USE THIS SPACE

1 142 1,170.00 CK

<p>5. ASSIGNMENT DATA TO BE PRINTED ON THE PATENT (print or type)</p> <p>(1) NAME OF ASSIGNEE: SHARP KABUSHIKI KAISHA</p> <p>(2) ADDRESS: (City & State or Country) Osaka, Japan</p> <p>(3) STATE OF INCORPORATION, IF ASSIGNEE IS A CORPORATION Japan</p> <p>A. <input type="checkbox"/> This application is NOT assigned. <input checked="" type="checkbox"/> Assignment previously submitted to the Patent and Trademark Office. <input type="checkbox"/> Assignment is being submitted under separate cover. Assignments should be directed to Box ASSIGNMENTS.</p> <p>PLEASE NOTE: Unless an assignee is identified in Block 5, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the PTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.</p>	<p>6a. The following fees are enclosed: <input checked="" type="checkbox"/> Issue Fee <input type="checkbox"/> Advanced Order - # of Copies _____ (Minimum of 10)</p> <p>6b. The following fees should be charged to: DEPOSIT ACCOUNT NUMBER 14-1140 (Enclose Part C) <input type="checkbox"/> Issue Fee <input type="checkbox"/> Advanced Order - # of Copies _____ <input checked="" type="checkbox"/> Any Deficiencies in Enclosed Fees (Minimum of 10)</p> <p>The COMMISSIONER OF PATENTS AND TRADEMARKS is requested to apply the Issue Fee to the application identified above.</p> <p>(Signature of party in interest of record) _____ (Date) _____ Paul J. Henon #33,626 5-9-94</p> <p>NOTE: The Issue Fee will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the Patent and Trademark Office.</p>
---	--

TRANSMIT THIS FORM WITH FEE-CERTIFICATE OF MAILING ON REVERSE

B



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application of

①

KANEMORI et al

Serial No.: 07/656,845

Filed: February 19, 1991

For: LIQUID CRYSTAL DISPLAY
ELEMENT AND METHOD FOR
TREATING DEFECTIVE PIXELS
THEREIN

Batch No. V06

Allowed: 02/15/94

Atty. Ref. 829-61

Group: 2515

Examiner: R. Trice

March 7, 1994

Honorable Commissioner of Patents and
Trademarks
Washington, DC 20231

Attn: Official Draftsman

SUBMISSION OF FORMAL DRAWING/S

Sir:

Enclosed herewith are FOURTEEN (14) sheets of formal, inked drawings for the
above-identified application.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By:

Paul J. Henon
Reg. No. 33,626

PJH:lmy
1100 North Glebe Road
8th Floor
Arlington, VA 22201-4714
Telephone: (703) 816-4000
Facsimile: (703) 816-4100

SHC 001669

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Fig. 9

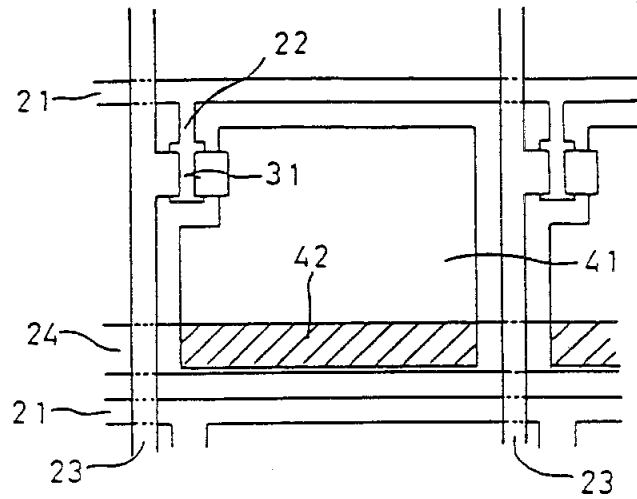
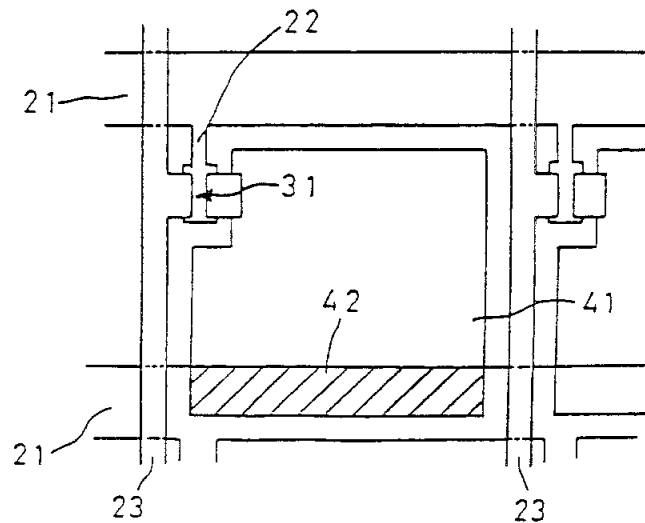


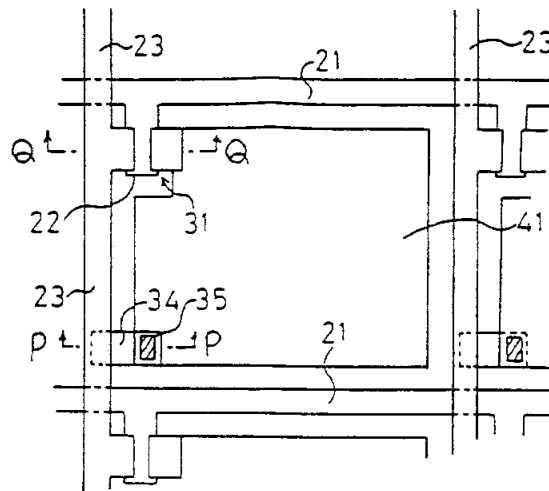
Fig. 10



SHC 001670

APPROVED	O.G. FIG. 11/15	
BY	CLASS	SUBCLASS
DRAWN	359	159

Fig. 11



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Fig. 12A

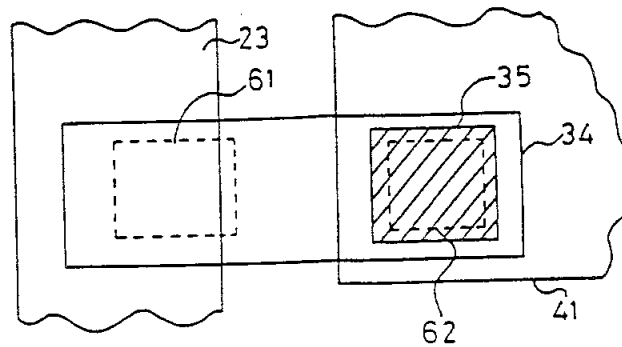
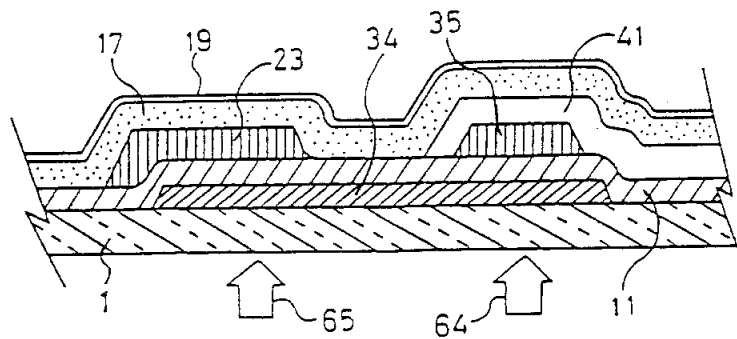


Fig. 12B



SHC 001672

FIG. FIG.

BY	CLASS	SUBCLASS
PTOMAN		

Fig. 13A

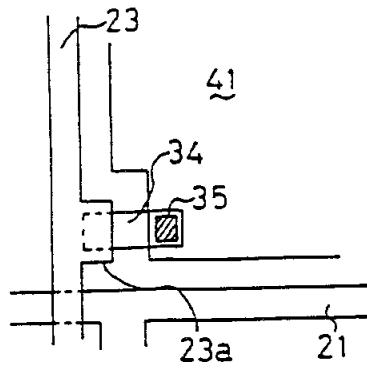


Fig. 13B

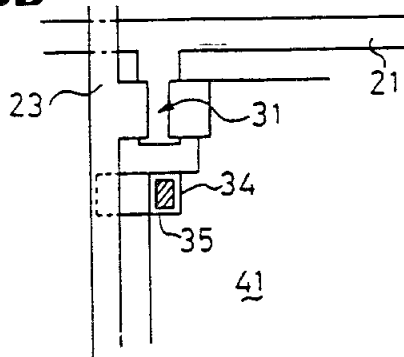
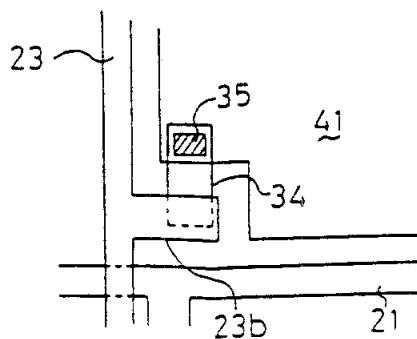


Fig. 13C



SHC 001673

APPROVED	D.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTER		

Fig. 14A

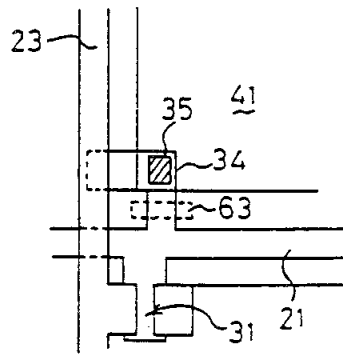


Fig. 14B

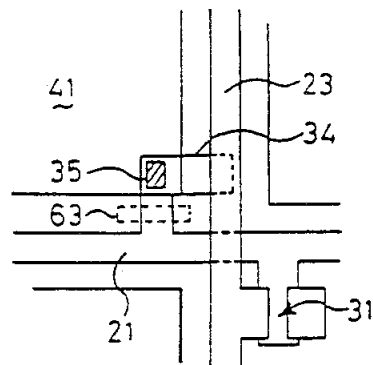


Fig. 15

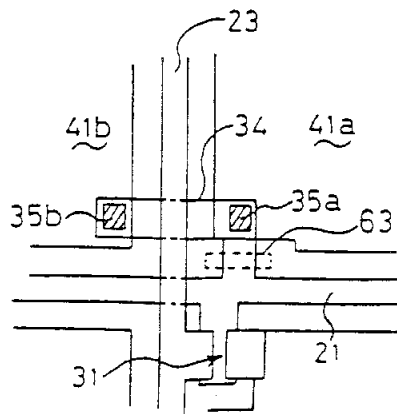


Fig. 16

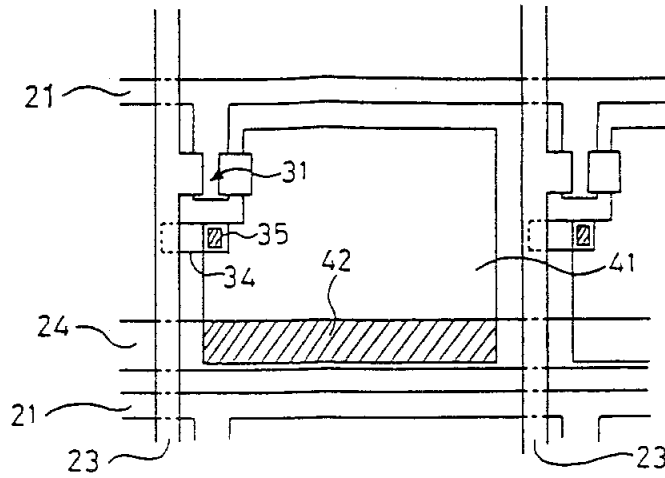


Fig. 17

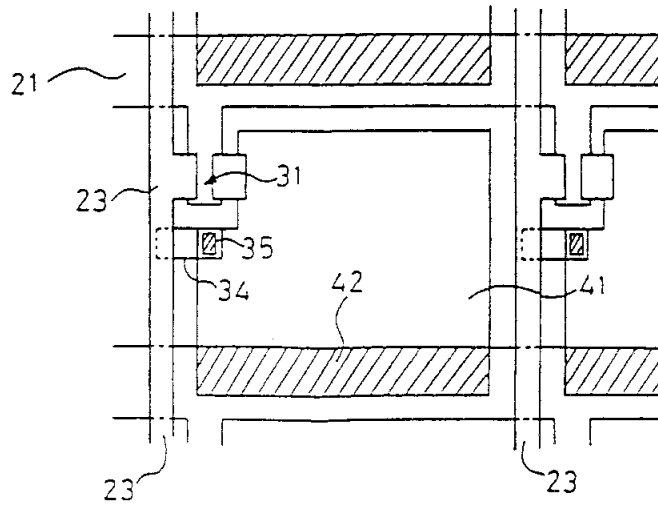


Fig. 18

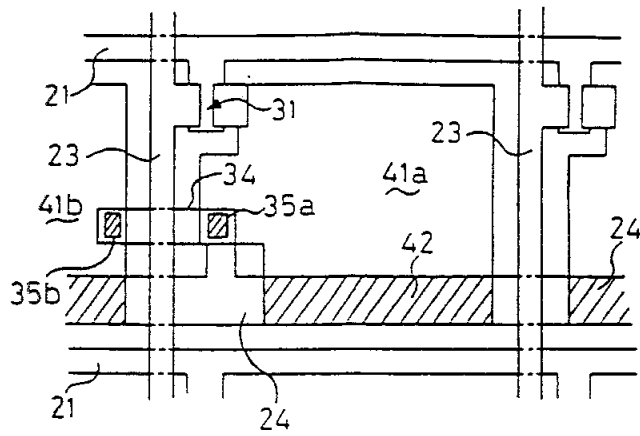


Fig. 19

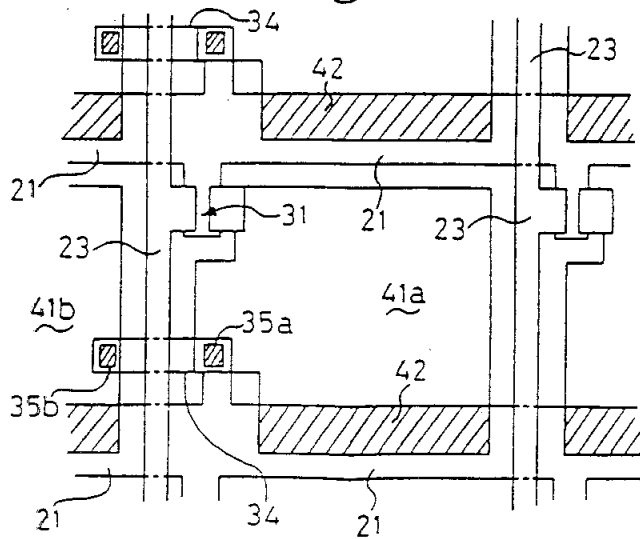


Fig. 20

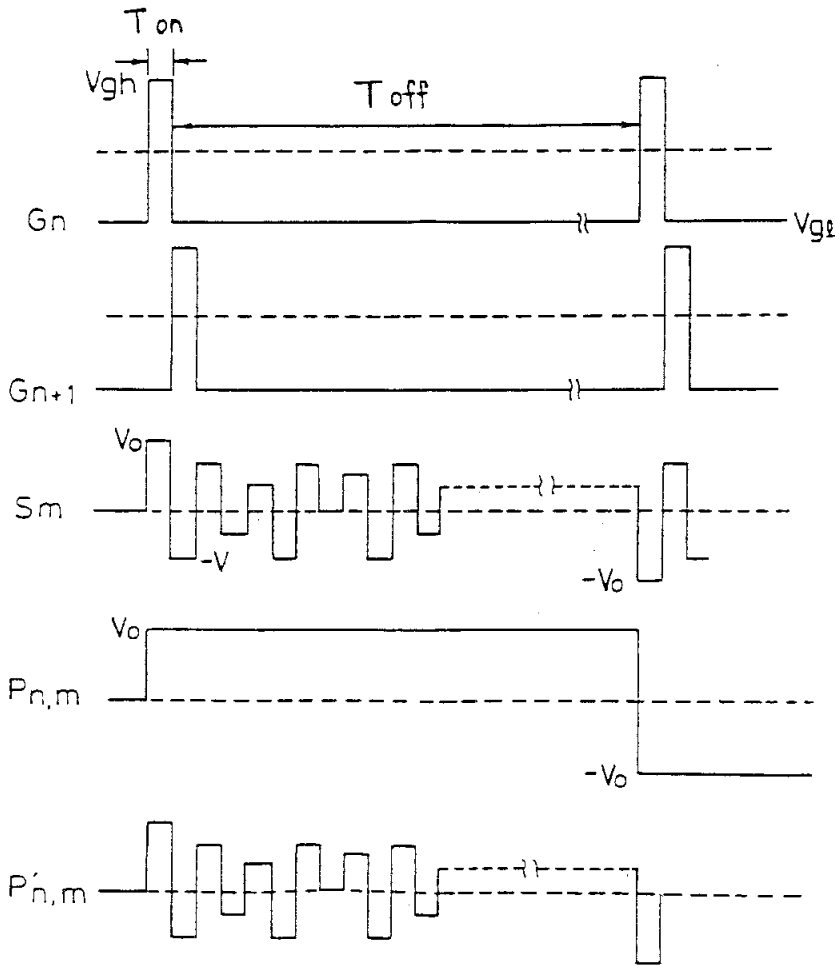


Fig. 21 Prior Art

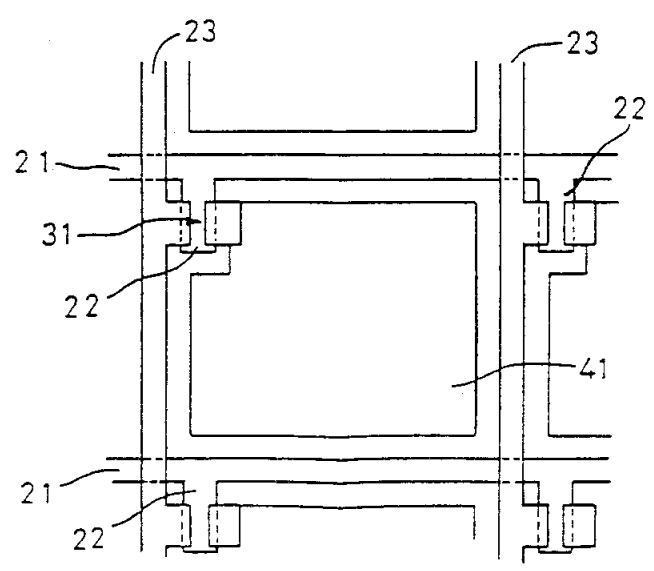
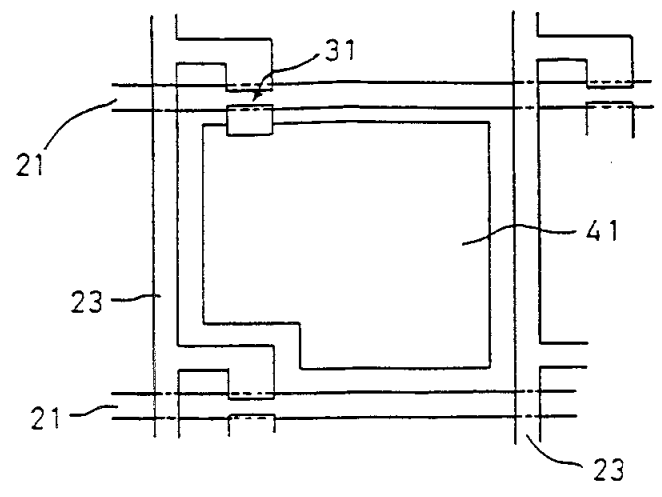


Fig. 22 Prior Art

CofC



THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent of
KANEMORI et al

Atty Ref.: 829-61

M.W. AJ
#22

Patent No.: 5,335,102

Issued: August 2, 1994

For: LIQUID CRYSTAL DISPLAY
ELEMENT AND METHOD FOR
TREATING DEFECTIVE PIXELS
THEREIN

RECEIVED
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CERTIFICATE
OF
CORRECTION BRANCH
OF
PATENT & TRADEMARK OFF.

August 31, 1994

Honorable Commissioner of Patents and
Trademarks
Washington, DC 20231

APPROVED

[Signature]
OCT 3 1994
FOR THE COMMISSIONER OF PAT. & T.M.

REQUEST FOR CERTIFICATE OF CORRECTION

Sir:

The patentees in the above-identified patent hereby request that the Patent and Trademark Office issue an official Certificate of Correction pursuant to 37 C.F.R. 1.322 for the following errors made by the Patent Office.

IN THE TITLE PAGE:

Item [75] Inventors:

The address of the inventor **Kiyoshi Nakazawa** should read -- Fujiidera --.

IN THE CLAIMS:

Column 18, line 50 (claim 6, line 6), -- line -- should be inserted after "signal".

Staple
Here
Only

PRINTER'S TRIM LINE

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 5,335,102
DATED : August 2, 1994
INVENTOR(S) : Yuzuru Kanemori et al

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

IN THE TITLE PAGE:

Item [75] Inventors:

The address of the inventor Kiyoshi Nakazawa should
read -- Fujiidera --.

IN THE CLAIMS:

Column 18, line 50 (claim 6, line 6), -- line -- should
be inserted after "signal".

MAILING ADDRESS OF SENDER: Paul J. Henson
Nixon & Vanderhye P.C.
1100 North Glebe Road - 8th Floor
Arlington, VA 22201

PATENT NO. 5,335,102

No. of add'l copies
@ 50¢ per page

SHC 001680



REMARKS

Concerning the error in the address of the inventor Nakazawa, attention is directed to the Declaration and Power of Attorney, page 2, inventor No. 3, wherein the city is spelled correctly.

Concerning the error which arose in claim 6, attention is directed to page 4 of the Amendment of February 2, 1993, claim 12 (thrice amended), line 6, wherein the word "line" appears after "signal".

Since the errors arose on the part of the Patent and Trademark Office, no fee is believed necessary for securing issuance of the Certificate.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By:



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UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 5,335,102
DATED : August 2, 1994
INVENTOR(S) : *Yuzuru Kanemori et al

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ON THE TITLE PAGE:

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Column 18, line 50 (claim 6, line 6), -- line -- should be inserted after "signal".

Signed and Sealed this

First Day of November, 1994

Attest:



BRUCE LEHMAN

Attesting Officer

Commissioner of Patents and Trademarks

SHC 001682

PATENT APPLICATION FEE DETERMINATION RECORD

Application or Docket Number

656845

CLAIMS AS FILED - PART I

SMALL ENTITY

OR

OTHER THAN SMALL ENTITY

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA
BASIC FEE		
TOTAL CLAIMS	15 minus 20 = *	0
INDEPENDENT CLAIMS	6 minus 3 = *	3
MULTIPLE DEPENDENT CLAIM PRESENT		

RATE	FEE
	\$ 315.00
x \$10 =	
x 30 =	
+ 100 =	
TOTAL	

RATE	FEE
	\$ 630.00
x \$20 =	
x 60 =	180
+ 200 =	
TOTAL	810

* If the difference in column 1 is less than zero, enter "0" in column 2

CLAIMS AS AMENDED - PART II

SMALL ENTITY

OR

OTHER THAN SMALL ENTITY

AMENDMENT A	(Column 1)	(Column 2)	(Column 3)	(Column 4)	(Column 5)
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA
Total	15	Minus	20	=	
Independent	6	Minus	3	=	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					

RATE	ADDITIONAL FEE
x \$10 =	
x 30 =	
+ 100 =	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
x \$20 =	
x 60 =	
+ 200 =	
TOTAL ADDIT. FEE	

AMENDMENT B	(Column 1)	(Column 2)	(Column 3)	(Column 4)	(Column 5)
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA
Total	*	Minus	**	=	
Independent	*	Minus	***	=	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					

RATE	ADDITIONAL FEE
x \$10 =	
x 30 =	
+ 100 =	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
x \$20 =	
x 60 =	
+ 200 =	
TOTAL ADDIT. FEE	

AMENDMENT C	(Column 1)	(Column 2)	(Column 3)	(Column 4)	(Column 5)
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA
Total	*	Minus	**	=	
Independent	*	Minus	***	=	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					

RATE	ADDITIONAL FEE
x \$10 =	
x 30 =	
+ 100 =	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
x \$20 =	
x 60 =	
+ 200 =	
TOTAL ADDIT. FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
 ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
 *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
 The "Highest Number Previously Paid For" (Total or independent) is the highest number found in the appropriate box in column 1.

PATENT APPLICATION FEE DETERMINATION RECORD

Effective December 16, 1991

Application or Docket Number

656845

CLAIMS AS FILED - PART I

(Column 1)

(Column 2)

SMALL ENTITY

OR
OTHER THAN
SMALL ENTITY

FOR	NUMBER FILED	NUMBER EXTRA
BASIC FEE		
TOTAL CLAIMS	* 15 minus 20 = *	
INDEPENDENT CLAIMS	6 minus 3 = *	3
MULTIPLE DEPENDENT CLAIM PRESENT		

RATE	FEE
	\$ 345.00
x \$10 =	
x 36 =	
+ 110 =	
TOTAL	

RATE	FEE
	\$ 690.00
x \$20 =	
x 72 =	
+ 220 =	
TOTAL	

* If the difference in column 1 is less than zero, enter "0" in column 2

CLAIMS AS AMENDED - PART II

(Column 1)

(Column 2)

(Column 3)

SMALL ENTITY

OR
OTHER THAN
SMALL ENTITY

B

AMENDMENT A		CLAIMS REMAINING AFTER AMENDMENT		MINUS	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
		(Column 1)	(Column 2)			
Total	*	15	20	**	20	= -
Independent	*	6	3	***	6	= -
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM						

RATE	ADDITIONAL FEE
x \$10 =	
x 36 =	
+ 110 =	
TOTAL	
ADDIT. FEE	

RATE	ADDITIONAL FEE
x \$20 =	
x 72 =	
+ 220 =	
TOTAL	
ADDIT. FEE	

(Column 1)

(Column 2)

(Column 3)

TOTAL
ADDIT. FEE

OR
TOTAL
ADDIT. FEE

C

AMENDMENT B		CLAIMS REMAINING AFTER AMENDMENT		MINUS	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
		(Column 1)	(Column 2)			
Total	*	8	20	**	20	= -
Independent	*	4	3	***	6	= -
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM						

RATE	ADDITIONAL FEE
x \$10 =	
x 36 =	
+ 110 =	
TOTAL	
ADDIT. FEE	

RATE	ADDITIONAL FEE
x \$20 =	
x 72 =	
+ 220 =	
TOTAL	
ADDIT. FEE	

(Column 1)

(Column 2)

(Column 3)

TOTAL
ADDIT. FEE

OR
TOTAL
ADDIT. FEE

AMENDMENT C		CLAIMS REMAINING AFTER AMENDMENT		MINUS	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
		(Column 1)	(Column 2)			
Total	*			**		=
Independent	*			***		=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM						

RATE	ADDITIONAL FEE
x \$10 =	
x 36 =	
+ 110 =	
TOTAL	
ADDIT. FEE	

RATE	ADDITIONAL FEE
x \$20 =	
x 72 =	
+ 220 =	
TOTAL	
ADDIT. FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

APPROVED	O.G. FIG 1/5	
BY	CLASS	SUBCLASS
RAFTSMAN	059	059

5335102

Fig. 1

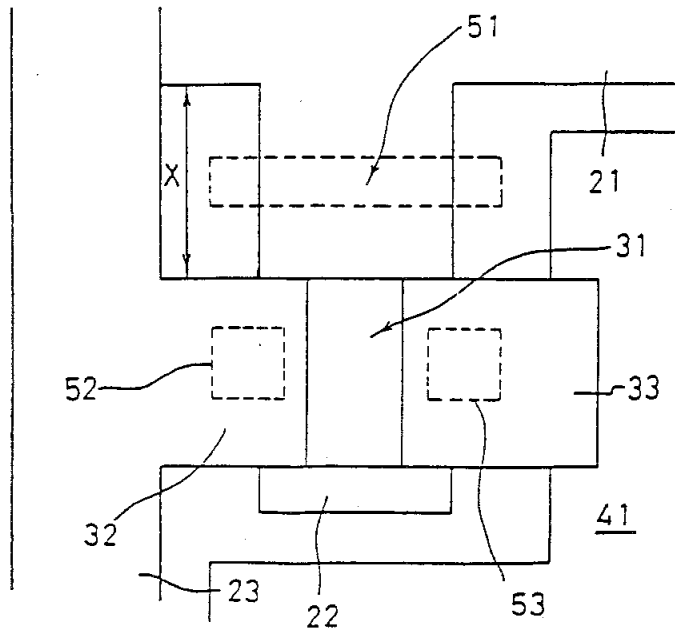
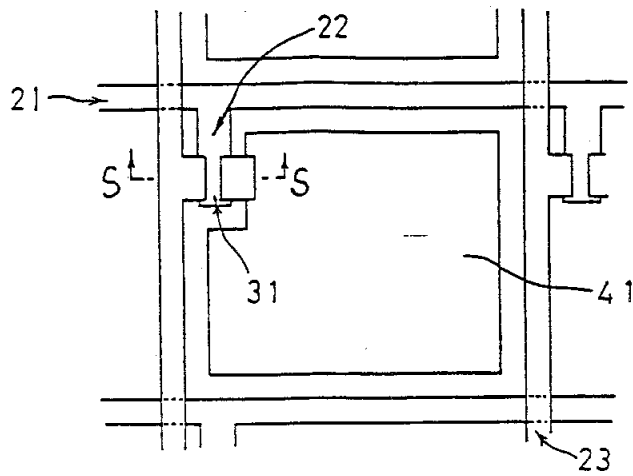
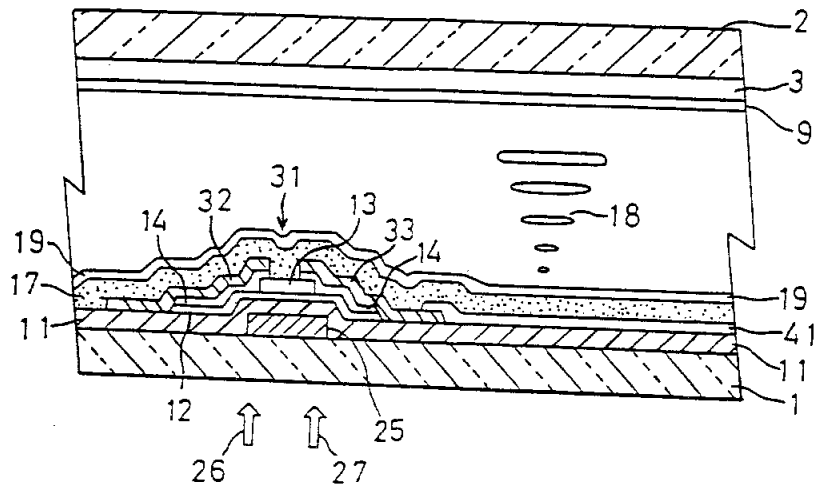


Fig. 2

SHC 001685

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Fig. 3



APPROVED	D.G. FIG.	
BY	CLASS	SUBCLASS
WRAFTSMAN		

Fig. 4

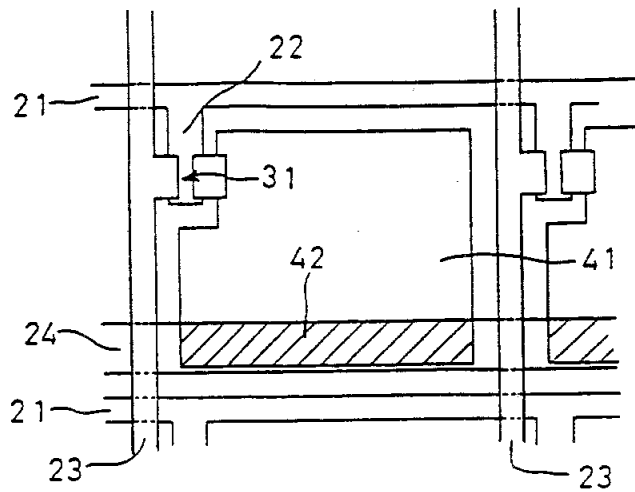
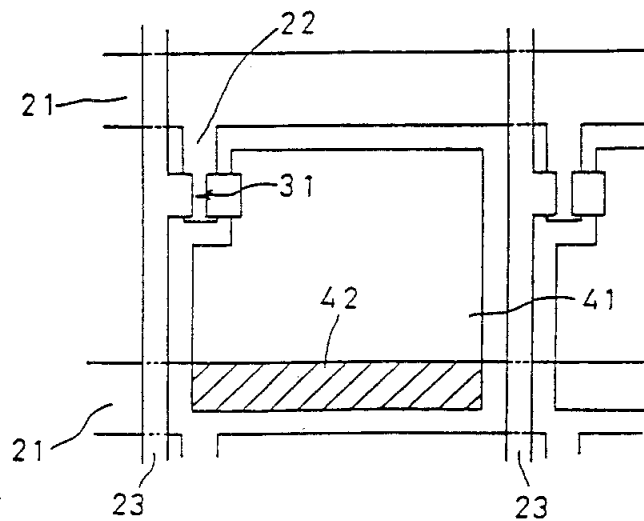


Fig. 5



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
RAFTSMAN		

Fig. 6

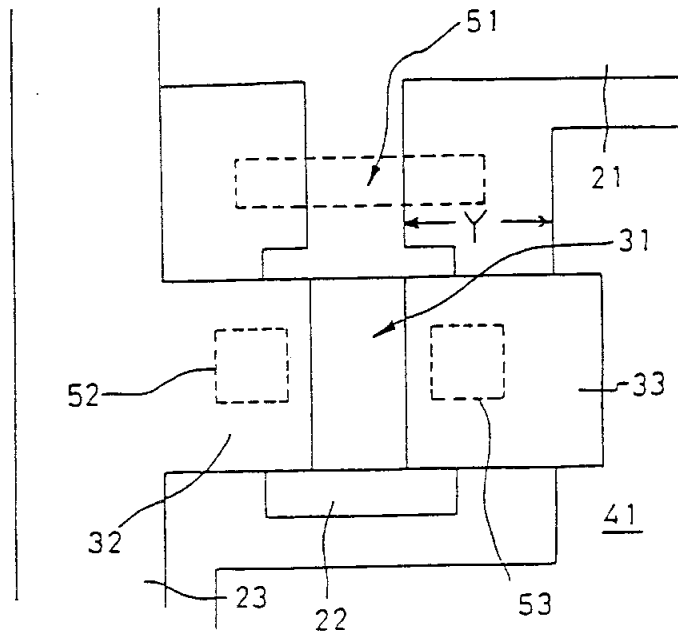
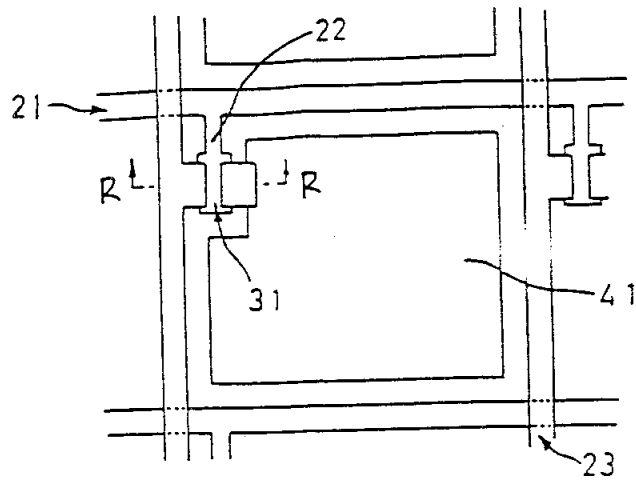


Fig. 7

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
WRIGHTSMAN		

Fig. 8A

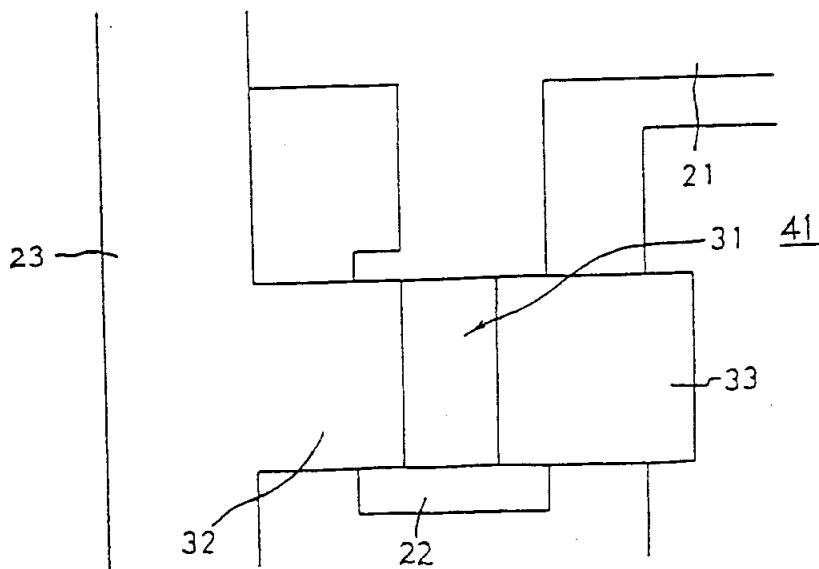
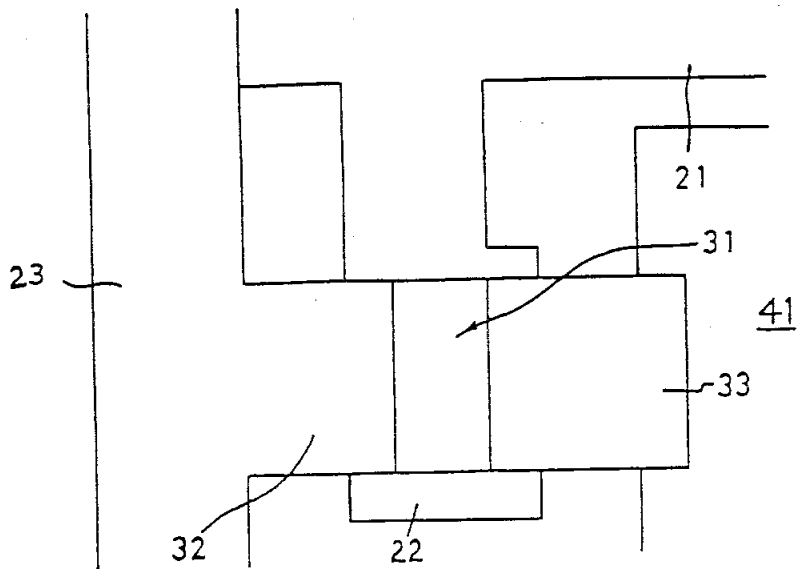


Fig. 8B

SHC 001689

U.S. DEPARTMENT OF COMMERCE - PATENT & TRADE OFFICE PREPARED BY **A Farabee** DATE **2-26-91**

FORM NO. 3 **FORM NO. 4** **FORM NO. 5** **FORM NO. 6&7** **FORM NO. 8** **FORM NO. 9**

TYPE APPL **1** FILING DATE **2/19/91** SPECIAL HANDLING **264340** CLASS **14** SHEETS OF DRAWINGS **15** TOTAL CLAIMS **6** SMALL CLAIMS **0** SECURITY FOR IGR CASE? **Y**

ATTORNEY DOCKET NUMBER **829-61** **APPL PAPERS** **APPL PAPERS** **APPL PAPERS** **APPL PAPERS** **APPL PAPERS** **APPL PAPERS**

RECORD	8	0	1	2	3	4	5	6	7	8	9	0	COUNTRY CODE	PCT/FOREIGN APPLICATION SERIAL NUMBER	FILING DATE	STATUS CODE	PARENT PATENT NUMBER
RECORD	8	0	1										J P X	2-1-7-17-8-7	5-1-1-9-0		
RECORD	8	0	2										J P X	2-1-2-17-8-8	5-1-1-9-0		
RECORD	8	0	3										J P X	2-1-2-51-9-1	5-1-4-9-0		
RECORD	8	0	4										J P X	2-1-4-08-5-9	6-4-4-9-0		
RECORD	8	0	5														
RECORD	8	0	6														
RECORD	8	0	7														
RECORD	8	0	8														
RECORD	8	0	9														
RECORD	8	1	0														

MC SUBMITTAL SHEET **FORM NO. 9** **FO** **PP** **C**

PATENT APPLICATION FEE DETERMINATION RECORD
Effective October 1, 1992

Application or Docket Number

CLAIMS AS FILED - PART I			SMALL ENTITY		OR		OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED (Column 1)	NUMBER EXTRA (Column 2)	RATE	FEE			RATE	FEE
BASIC FEE				\$355.00	OR			\$710.00
TOTAL CLAIMS	minus 20 = *		x\$11=		OR		x\$22=	
INDEPENDENT CLAIMS	minus 3 = *		x 37=		OR		x 74=	
MULTIPLE DEPENDENT CLAIM PRESENT			+115=		OR		+230=	
			TOTAL		OR	TOTAL		

* If the difference in column 1 is less than zero, enter "0" in column 2

CLAIMS AS AMENDED - PART II					SMALL ENTITY		OR		OTHER THAN SMALL ENTITY	
	CLAIMS REMAINING AFTER AMENDMENT (Column 1)		HIGHEST NUMBER PREVIOUSLY PAID FOR (Column 2)	PRESENT EXTRA (Column 3)	RATE	ADDI-TIONAL FEE			RATE	ADDI-TIONAL FEE
AMENDMENT A										
	Total	8	Minus ** 20	=	x\$11=		OR		x\$22=	
	Independent	8	Minus *** 6	= 2	x 37=		OR		x 74=	168.00
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					+ 115=		OR		+230=	
					TOTAL		OR	TOTAL		148.00

	CLAIMS REMAINING AFTER AMENDMENT (Column 1)		HIGHEST NUMBER PREVIOUSLY PAID FOR (Column 2)	PRESENT EXTRA (Column 3)	RATE	ADDI-TIONAL FEE			RATE	ADDI-TIONAL FEE
AMENDMENT B										
	Total		Minus **	=	x\$11=		OR		x\$22=	
	Independent		Minus ***	=	x 37=		OR		x 74=	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					+ 115=		OR		+ 230=	
					TOTAL		OR	TOTAL		

	CLAIMS REMAINING AFTER AMENDMENT (Column 1)		HIGHEST NUMBER PREVIOUSLY PAID FOR (Column 2)	PRESENT EXTRA (Column 3)	RATE	ADDI-TIONAL FEE			RATE	ADDI-TIONAL FEE
AMENDMENT C										
	Total		Minus **	=	x\$11=		OR		x\$22=	
	Independent		Minus ***	=	x 37=		OR		x 74=	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					+115=		OR		+230=	
					TOTAL		OR	TOTAL		

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
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 *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
 The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

The
United
States
of
America

The Commissioner of Patents
and Trademarks

Has received an application for a patent
for a new and useful invention. The title
and description of the invention are en-
closed. The requirements of law have
been complied with, and it has been de-
termined that a patent on the invention
shall be granted under the law.

Therefore, this

United States Patent

Grants to the person or persons having
title to this patent the right to exclude
others from making, using or selling the
invention throughout the United States
of America for the term of seventeen
years from the date of this patent, sub-
ject to the payment of maintenance fees
as provided by law.



Bruce Lehman

Commissioner of Patents and Trademarks

Janara J. Morth
Attest