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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
12/170,939	07/10/2008	Yves Behar	L2039-700110

23628  
WOLF GREENFIELD & SACKS, P.C.  
600 ATLANTIC AVENUE  
BOSTON, MA 02210-2206

**CONFIRMATION NO. 1986**  
**POA ACCEPTANCE LETTER**



Date Mailed: 03/31/2016

**NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY**

This is in response to the Power of Attorney filed 03/18/2016.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/tpetros/



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23628  
WOLF GREENFIELD & SACKS, P.C.  
600 ATLANTIC AVENUE  
BOSTON, MA 02210-2206

**CONFIRMATION NO. 1986**  
**POWER OF ATTORNEY NOTICE**



Date Mailed: 03/31/2016

**NOTICE REGARDING CHANGE OF POWER OF ATTORNEY**

This is in response to the Power of Attorney filed 03/18/2016.

- The Power of Attorney to you in this application has been revoked by the assignee who has intervened as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/tpetros/

**POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO**

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(b).

I hereby appoint:

Practitioners associated with the Customer Number: 23628

OR

Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(b).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(b) to:

The address associated with Customer Number: 23628

OR

<input type="checkbox"/> Firm or Individual Name			
Address			
City	State	Zip	
Country			
Telephone	Email		

Assignee Name and Address:

LITL LLC  
501 Boylston Street  
Boston, MA 02116

A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/86 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.

**SIGNATURE of Assignee of Record**

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature	<i>Kristin Carroll</i>	Date	2/26/2016
Name	Kristin Carroll	Telephone	617-535-8000
Title	General Counsel		

<b>Electronic Acknowledgement Receipt</b>	
<b>EFS ID:</b>	25245010
<b>Application Number:</b>	12170939
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	1986
<b>Title of Invention:</b>	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS
<b>First Named Inventor/Applicant Name:</b>	Yves Behar
<b>Customer Number:</b>	23628
<b>Filer:</b>	Edward J. Russavage/Sara Sikorski
<b>Filer Authorized By:</b>	Edward J. Russavage
<b>Attorney Docket Number:</b>	L2039-700110
<b>Receipt Date:</b>	18-MAR-2016
<b>Filing Date:</b>	10-JUL-2008
<b>Time Stamp:</b>	17:00:39
<b>Application Type:</b>	Utility under 35 USC 111(a)

**Payment information:**

Submitted with Payment	no
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**File Listing:**

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Assignee showing of ownership per 37 CFR 3.73	L203970001US01-373-EJR.pdf	25811 a1195b12f7139ae0e83151e211553ff5021d3beb	no	2

**Warnings:**

**Information:**



2	Power of Attorney	L203990000US00-prePOA-EJR.pdf	326446 11ff6f04a180721786985cac1b8da2341fc5a7d1	no	1
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			352257		
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  <b>If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  <b>If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  <b>If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</b></p>					

**STATEMENT UNDER 37 CFR 3.73(b)**

Applicant/Patent Owner: LiTL LLC  
 Application No./Patent No.: 8,289,688 Filed/Issue Date: October 16, 2012  
 Titled: PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS

LiTL LLC, a Corporation  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1.  the assignee of the entire right, title, and interest in;
2.  an assignee of less than the entire right, title, and interest in  
 (The extent (by percentage) of its ownership interest is \_\_\_\_\_ %); or
3.  an assignee of an undivided interest in the entirety of (a complete assignment from one of the joint inventors was made) the patent application/patent identified above by virtue of either:
  - A.  An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

**OR**

- B.  A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:
  1. From: Yves Behar To: AQUENT LLC  
 The document was recorded in the United States Patent and Trademark Office at Reel 021804, Frame 0011, or for which a copy thereof is attached.
  2. From: Joshua Morenstein To: AQUENT LLC  
 The document was recorded in the United States Patent and Trademark Office at Reel 021804, Frame 0011, or for which a copy thereof is attached.
  3. From: Christopher Hibmacronan To: AQUENT LLC  
 The document was recorded in the United States Patent and Trademark Office at Reel 021804, Frame 0011, or for which a copy thereof is attached.

Additional documents in the chain of title are listed on a supplemental sheet(s).

As required by 37 CFR 3.73(b)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (*i.e.*, a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

<u>/Edward J. Russavage/</u> Signature	<u>3/17/2016</u> Date
<u>Edward J. Russavage</u> Printed or Typed Name	<u>Attorney for Assignee</u> Title

**Certificate of Electronic Filing Under 37 CFR 1.8**

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with 37 CFR § 1.6(a)(4).

Dated: March 18, 2016 \_\_\_\_\_ Electronic Signature for Sara A. Sikorski: /Sara A. Sikorski/

**STATEMENT UNDER 37 CFR 3.73(b) - Supplemental Sheet**

Continuation of chain of title from the inventor(s) to the current assignee.

4. From: Naoya Edahiro To: AQUENT LLC  
The document was recorded in the United States Patent and Trademark Office at Reel 021804 , Frame 0011 , or for which a copy thereof is attached.
5. From: Matthew David Day To: AQUENT LLC  
The document was recorded in the United States Patent and Trademark Office at Reel 021804 , Frame 0011 , or for which a copy thereof is attached.
6. From: AQUENT LLC To: LITL LLC  
The document was recorded in the United States Patent and Trademark Office at Reel 023871 , Frame 0867 , or for which a copy thereof is attached.
7. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_ , Frame \_\_\_\_\_ , or for which a copy thereof is attached.
8. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_ , Frame \_\_\_\_\_ , or for which a copy thereof is attached.
9. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_ , Frame \_\_\_\_\_ , or for which a copy thereof is attached.
10. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_ , Frame \_\_\_\_\_ , or for which a copy thereof is attached.
11. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_ , Frame \_\_\_\_\_ , or for which a copy thereof is attached.
12. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_ , Frame \_\_\_\_\_ , or for which a copy thereof is attached.
13. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_ , Frame \_\_\_\_\_ , or for which a copy thereof is attached.
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The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_ , Frame \_\_\_\_\_ , or for which a copy thereof is attached.
15. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_ , Frame \_\_\_\_\_ , or for which a copy thereof is attached.



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APPLICATION NUMBER	PATENT NUMBER	GROUP ART UNIT	FILE WRAPPER LOCATION
12/170,939	8289688	2835	9200



**Correspondence Address/Fee Address Change**

The following fields have been set to Customer Number 23628 on 02/05/2016

- Correspondence Address
- Maintenance Fee Address

The address of record for Customer Number 23628 is:

23628  
WOLF GREENFIELD & SACKS, P.C.  
600 ATLANTIC AVENUE  
BOSTON, MA 02210-2206

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with 37 CFR § 1.6(a)(4).

Dated: October 10, 2012  
Electronic Signature for Matthew H. Grady: /Matthew H. Grady/

Docket No.: L2039-700110  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Yves Behar et al.

Application No.: 12/170,939

Confirmation No.: 1986

Filed: July 10, 2008

Art Unit: 2835

For: PORTABLE COMPUTER WITH MULTIPLE  
DISPLAY CONFIGURATIONS

Examiner: A. S. Wilson

**LETTER**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

The attention of the Patent and Trademark Office is hereby directed to the PTO/SB/08 and Information Disclosure Statement Transmittal Letter submitted on July 9, 2012. Due a clerical error, the incorrect Office Action (Office Action L2039-700111 dated April 4, 2011, Serial No. 12/170,951), was cited in an after Allowance IDS, with an accompanying statement directed to the incorrect Office Action. The April 4, 2011 Office Action was previously cited to the Office on April 29, 2011.

Applicant intended to submit and make the accompanying statement with respect to the Office Action L2039-700111, Serial No. 12/170,951 dated June 7, 2012, a copy of which accompanies this submission for the convenience of the Office. Applicant respectfully withdraws the statement submitted on July 9, 2012 with respect to the incorrect Office Action. It is Applicant's understanding that all of the references in July 9, 2012 Office Action have been cited to the Office and Application Serial No. 12/170,951 has been cited as a related Application, in the present matter. Thus, Applicant believes no further action is required.

1410493.1

It is Applicant's understanding that no fee is occasioned by this submission. If this submission is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this submission, including an extension fee that is not covered by an accompanying payment, please charge any deficiency to Deposit Account No. 50/2762, ref. no, L2039-700110.

Dated: October 10, 2012

Respectfully submitted,

Electronic signature: /Matthew H. Grady/  
Matthew H. Grady

Registration No.: 52,957  
LANDO & ANASTASI LLP  
Riverfront Office Park  
One Main Street  
Suite 1100  
Cambridge, Massachusetts 02142  
(617) 395-7000  
Attorney for Applicant



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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO. Includes fields for EXAMINER (ABEBE, SOSINA), ART UNIT (2629), PAPER NUMBER, NOTIFICATION DATE (06/07/2012), and DELIVERY MODE (ELECTRONIC).

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@LALaw.com
gengelso@LALaw.com

<b>Office Action Summary</b>	<b>Application No.</b> 12/170,951	<b>Applicant(s)</b> BEHAR ET AL.	
	<b>Examiner</b> SOSINA ABEBE	<b>Art Unit</b> 2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 22 March 2012.
- 2a)  This action is **FINAL**.                      2b)  This action is non-final.
- 3)  An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 5)  Claim(s) 1-8 and 10-24 is/are pending in the application.  
5a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 6)  Claim(s) \_\_\_\_\_ is/are allowed.
- 7)  Claim(s) 1-8 and 10-24 is/are rejected.
- 8)  Claim(s) \_\_\_\_\_ is/are objected to.
- 9)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 10)  The specification is objected to by the Examiner.
- 11)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 13)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \*    c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 05/18/2012.
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5)  Notice of Informal Patent Application
- 6)  Other: \_\_\_\_\_



## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 22, 2012 has been entered.

### ***Response to Arguments***

This is in response to applicant's communication filed on 22 March 2012, wherein: claims 1 – 8 and 10 - 21 are currently pending. Claims 1, 7, 8, 13, 18 and 21 have been amended. Claims 22 - 24 have been added. Claim 9 has been cancelled.

Applicant's arguments filed on March 22, 2012 with respect to claims 1 – 8 and 10 - 24 have been fully considered but are moot in view of the new ground(s) of rejection.

### ***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.

Art Unit: 2629

1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 7, 10 -11 and 22 - 24 of Application No. 12/170,951 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 13, 26, 27, 29 and 34 of copending Application No. 12/170,939.

Claim 7 of Current Application 12/170,951	Claim 13 of Application 12/170,939
<p>A portable computer configurable between a plurality of display modes including a laptop mode and an easel mode, the portable computer comprising:</p> <ul style="list-style-type: none"> <li>a base including a keyboard;</li> <li>a single display component rotatably coupled to the base and including a screen which displays content;</li> </ul>	<p>A portable computer configurable between a plurality of modes including a laptop mode and an easel mode, the portable computer comprising:</p> <ul style="list-style-type: none"> <li>a single display component;</li> <li>a base including an integrated keyboard;</li> </ul>
<ul style="list-style-type: none"> <li>a hinge assembly disposed at least</li> </ul>	<ul style="list-style-type: none"> <li>a hinge assembly configured to rotatably couple the single display component to the</li> </ul>

<p>partially within the base and the display component that defines an axis of rotation about which both the base and the display component are rotatable to transition the portable computer between the laptop mode and the easel mode, wherein;</p> <p>the laptop mode is configured to display to a user on the single display component a first content mode having a first content display orientation with the single display component oriented towards the user and the keyboard oriented to receive input from the user;</p>	<p>base, wherein the hinge assembly is at least partially housed within the base and the single display component, and defines a longitudinal axis running along an interface between the single display component and the base;</p> <p>wherein the hinge assembly is configured to permit the rotation of the single display component and the base about the longitudinal axis to configure the portable computer between a laptop mode and an easel mode;</p>
<p>the easel mode is configured to display to a user on the single display component a second content mode having a second content display orientation with the single display component oriented towards the user and the keyboard oriented away from the user, wherein the</p>	<p>wherein in the easel mode the single display component is oriented facing the operator with the keyboard oriented away from the operator; and</p>

<p>first and second content display orientations are 180 degrees relative to each other; and</p>	
<p>a scroll wheel accessible in each of the plurality of display modes and configured to permit a user to manipulate at least one of operating parameters of the portable computer and the content displayed on the screen.</p>	<p>at least one integrated navigation hardware control configured to control features and manipulate content displaced on the portable computer, wherein at least one of the least one integrated navigation hardware control is accessible in each of the plurality of modes including when the keyboard is inaccessible or oriented away from the user.</p>
<p>Claim 10, a first navigation button user-accessible in each of the laptop mode and the easel mode, and configured to permit the user to manipulate selected content displayed on the screen.</p> <p>Claim 11, wherein the first navigation button is configured to permit the user to select for display one of the plurality of modes of content.</p>	<p>Claim 26, at least one integrated navigation hardware control, wherein at least one integrated navigation hardware control accessible in at least the laptop and easel modes, and wherein the integrated navigation hardware can be operated by a user to control features and manipulate content displayed on the portable computer, including any mode wherein the keyboard is inaccessible or</p>

	oriented away from the user.
Claim 22, wherein the plurality of modes includes a frame mode in which the single display component is oriented towards the operator, the base contacts a substantially horizontal surface, and the keyboard is directed towards the substantially horizontal surface.	Claim 27, wherein the plurality of modes includes a frame mode in which the single display component is oriented towards the operator, the base contacts a substantially horizontal surface, and the keyboard is directed towards the substantially horizontal surface.
Claim 23, wherein the frame mode is configured to display to a user on the single display component the first content mode having the first content display orientation.	Claim 34, wherein the act of configuring the content orientation include an act of displaying the visual display in the first content orientation of the content for the frame mode.
Claim 24, wherein the portable computer is configured to prevent the portable computer from responding to keyboard input when the portable computer is in the fame mode.	Claim 29, a protection module configured to prevent keyboard operation when the portable computer is configured in the frame mode.

Copending Application No. 12/170,939 rejected with **Nishiyama** “**5,436,954**”. Nobuchi and Aarras as a whole fail to teach Application No. 12/170,951 claims 1, 7 and 13, a scroll wheel disposed at least partially within the base and rotatable about the longitudinal axis, the scroll wheel configured to permit a user to control at least one of operating parameters of the portable computer and content displayed on the display screen.

**However, Nishiyama discloses** a scroll wheel (scroll wheel is equivalent to selector 8 in fig. 1) disposed at least partially within the base and rotatable about the longitudinal axis, the scroll wheel (8) configured to permit a user to control at least one of operating parameters of the portable computer and content displayed on the display screen. (col. 4; lines 21 – 26)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the display orientation of Nobuchi and the easel mode taught in figures 8 & 19 of Aarras to further include the scroll wheel of Nishiyama to allow the user easily select or view information.

This is a provisional obviousness-type double patenting rejection.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2629

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in **Graham v. John Deere Co., 383 U.S. 1, 148 USPO 459 (1966)**, that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows: (*See MPEP Ch. 2141*)

- a. Determining the scope and contents of the prior art;
- b. Ascertaining the differences between the prior art and the claims in issue;
- c. Resolving the level of ordinary skill in the pertinent art; and
- d. Evaluating evidence of secondary considerations for indicating obviousness or nonobviousness.

**4. Claims 1 - 8, 10 - 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nobuchi “US 6,492,974” in view of Aarras “US 2006/0264243” and further in view of Nishiyama “5,436,954”.**

***Re-Claim 1, Nobuchi teaches*** a portable computer comprising: (fig. 1)

a base (fig. 1; 1) including a keyboard (2);

a single display component (3) rotatably coupled to the base (1) such that the single display component (3) and the base (1) are rotatable with respect to one another about a longitudinal axis (5) running along an interface between the display component (3) and the base (1) to transition between at least a laptop mode (figs. 1 & 16(a)), the single display component including a display screen (3), wherein

the laptop mode (figs. 1 & 16 (a)) is configured to display to a user on the single display (3) component a first content mode (fig. 16(a)) having a first content display

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orientation with the single display component oriented towards the user and the keyboard oriented to receive input from the user; (fig. 16(a)) and col. 1; lines 31 – 34)

**Nobuchi fails to teach** an easel mode is configured to display to a user on the single display component a second content mode.

**However Aarras teaches** an easel mode (figs. 8 & 19) is configured to display to the user on the single display (30 in fig.19) component a second content mode (fig. 19) having a second content display orientation (par. 50; lines 7 – 10) with the single display (30) component oriented towards the user and the keyboard (14) oriented away from the user (see figs. 8 & 19), wherein the first and second content display orientations are 180 degrees relative to each other; and (par. 39; lines 3 – 6)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the display orientation of Nobuchi and the easel mode taught in figures 8 & 19 of Aarras to allow a user to select the image from the display as shown in FIG. 8. (Aarras, par. 40) **Neither Nobuchi nor Aarras expressly disclose** a scroll wheel.

**However Nishiyama discloses** a scroll wheel (scroll wheel is equivalent to selector 8 in fig. 1) disposed at least partially within the base and rotatable about the longitudinal axis, the scroll wheel (8) configured to permit a user to control at least one of operating parameters of the portable computer and content displayed on the display screen. (col. 4; lines 21 – 26)



It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the display orientation of Nobuchi and the easel mode taught in figures 8 & 19 of Aarras to further include the scroll wheel as disclosed by Nishiyama to allow the user easily select or view information.

***Re-claim 2, Nobuchi, Aarras and Nishiyama as a whole teach all the limitations of claim 1, Nishiyama further discloses,*** where the scroll wheel (fig. 1; 8) is configured to permit the user to adjust a volume of sound produced by the portable computer. (col. 4; lines 27 – 29)

***Re-Claim 3, Nobuchi, Aarras and Nishiyama as a whole teach all the limitations of claim 1, Nishiyama further discloses,*** a first navigation button (fig. 1; 9) disposed on one of the base (4) and the display component (2) and configured to permit the user to manipulate selected content displayed on the screen (7). (col. 5; lines 23 – 28)

***Re-Claim 4, Nobuchi, Aarras and Nishiyama as a whole teach all the limitations of claim 1, Nishiyama further discloses,*** wherein the screen is configured to display at least one of a plurality of modes of content; and wherein the navigation button is configured to permit the user to select for display one of the plurality of modes of content. (col. 4; lines 42 – 68)

***Re-Claim 5, Nobuchi, Aarras and Nishiyama as a whole teach all the limitations of claim 1, Nishiyama further discloses,*** a second navigation button (fig. 1; 11); wherein the first navigation button (item 9) is disposed on a major surface of the base (4); and wherein the second navigation button (11) is disposed on a minor surface of the base. (see fig. 1)

***Re-Claim 6, Nobuchi, Aarras and Nishiyama as a whole teach all the limitations of claim 1, Nishiyama further discloses,*** wherein the scroll wheel (fig. 3; 8) is configured to permit the user to select a mode of content for display by the portable computer. (col. 5; lines 34 – 39)

***Re-Claim 7, Nobuchi teaches*** a portable computer configurable between a plurality of display modes including a laptop mode (figs. 1 & 16(a)), the portable computer comprising:

a base (fig. 1; 1) including a keyboard (2);

a single display component (3) rotatably coupled to the base (1) and including a screen (3) which displays content;(col. 1; lines 28 – 30)

a hinge (5) assembly disposed at least partially within the base (1) and the display component (3) that defines an axis of rotation about which both the base and the display component are rotatable (see fig. 2) to transition the portable computer between the laptop mode (figs. 1 & 16(a)), wherein

the laptop mode (figs. 1 & 16 (a)) is configured to display to a user on the single display (3) component a first content mode (fig. 16(a)) having a first content display orientation with the single display component oriented towards the user and the keyboard oriented to receive input from the user; (fig. 16(a)) and col. 1; lines 31 – 34)

**Nobuchi fails to teach** an easel mode is configured to display to a user on the single display component a second content mode.

**However Aarras teaches** an easel mode (figs. 8 & 19) is configured to display to the user on the single display (30 in fig.19) component a second content mode (fig. 19) having a second content display orientation (par. 50; lines 7 – 10) with the single display (30) component oriented towards the user and the keyboard (14) oriented away from the user (see figs. 8 & 19), wherein the first and second content display orientations are 180 degrees relative to each other; and (par. 39; lines 3 – 6)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the display orientation of Nobuchi and the easel mode taught in figures 8 & 19 of Aarras to allow a user to select the image from the display as shown in FIG. 8. (Aarras, par. 40)

**Neither Nobuchi nor Aarras expressly disclose** a scroll wheel.

**However Nishiyama discloses** a scroll wheel (8 in fig. 1) accessible in each of the plurality of display modes and configured to permit a user to manipulate at least one of operating parameters of the portable computer and the content displayed on the screen. (col. 4; lines 21 – 26)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the display orientation of Nobuchi and the easel mode taught in figures 8 & 19 of Aarras to further include the scroll wheel as disclosed by Nishiyama to allow the user easily select or view information.

**Re-Claim 8**, the combination of **Nobuchi, Aarras and Nishiyama as a whole teach further teach** wherein the scroll wheel (Nishiyama, fig. 3; 8) is disposed at least partially about the axis of rotation of the display component (3) relative to the base (1) (Nobuchi, col. 1; lines 28 – 30).

**Re-Claim 10**, the combination of **Nobuchi, Aarras and Nishiyama as a whole further teach** first navigation button (Nishiyama; 9 in fig. 1) user-accessible in each of the laptop mode (Nobuchi, figs. 1 & 2) and the easel mode (Aarras, figs. 8 & 19), and configured to permit the user to manipulate selected content displayed on the screen. (Nishiyama, col. 5; lines 23 – 68 through col. 6; lines 1 – 4)

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**Re-Claim 11**, is rejected as applied to claim 4 above because the scope and contents of the recited limitations are substantially the same.

**Re-Claim 12, the combination of Nobuchi, Aarras and Nishiyama as a whole further teach** a second navigation button (Nishiyama, fig. 1; 11) that is not user-accessible when the portable computer is in the easel mode (Aarras, figs. 8 & 19).

**Re-Claim 13**, is rejected as applied to claims 1 and 7 above because the scope and contents of the recited limitations are substantially the same.

**Re-Claim 14, Nobuchi, Aarras and Nishiyama as a whole teach all the limitations of claim 1, Nishiyama further discloses**, wherein the scroll wheel (fig. 3; 8) is configured to permit a user to manipulate the content displayed on the screen. (col. 4; lines 55 - 61)

**Re-Claim 15**, is rejected as applied to claim 2 above because the scope and contents of the recited limitations are substantially the same.

**Re-Claim 16, Nobuchi, Aarras and Nishiyama as a whole teach all the limitations of claim 1, Nishiyama further discloses**, wherein the scroll wheel (fig. 1; 8) is disposed at least partially within the hinge (3) assembly. (see fig. 1)

**Re-Claim 17**, is rejected as applied to claim 3 above because the scope and contents of the recited limitations are substantially the same.

**Re-Claim 18, the combination of Nobuchi, Aarras and Nishiyama as a whole further teach** wherein rotating either the display component (Nishiyama, 3 in fig. 1) or the base (1) about the longitudinal axis (5) up to approximately 180 degrees from a closed mode (Nobuchi, fig. 8) in which the display screen is disposed substantially against the base configures the portable computer into the laptop mode (Nobuchi, figs. 1 & 16(a)); and

Wherein rotating either the display component or the base (1) about the longitudinal axis (5) beyond approximately 180 degrees from the closed mode (fig. 8) (Nobuchi, col. 1; lines 28 - 30) configures the portable computer into the easel mode (Aarras, figs. 8 & 19).

**Re-Claim 19, Nobuchi, Aarras and Nishiyama as a whole teach all the limitations of claim 1, Nobuchi further discloses**, wherein an operating display

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mode (fig. 1) is selected from the plurality of display modes based on a physical orientation of the portable computer. (col. 2; lines 49 – 59)

***Re-Claim 20, the combination of Nobuchi, Aarras and Nishiyama as a whole further teach*** wherein an operating display mode is selected from the plurality of display modes (Nobuchi, col. 2; lines 49 – 59) in response to operation of the scroll wheel (8). (Nishiyama, col. 5; lines 34 – 39)

***Re-Claim 21, Nobuchi, Aarras and Nishiyama as a whole teach all the limitations of claim 1, Nishiyama further discloses,*** wherein the scroll wheel (item 8) provides a default action which effects manipulation of the at least one of the operating parameters of the portable computer, wherein the default action is defined differently responsive to a display mode of the portable computer. (col. 4; lines 42 – 61 and col. 5; lines 34 - 66)

***Re-Claim 22, Nobuchi, Aarras and Nishiyama as a whole teach all the limitations of claim 1, Nobuchi further discloses,*** wherein the plurality of modes includes a frame mode in which the single display (3 in fig. 14) component is oriented towards the operator, the base (1 in fig. 14) contacts a substantially horizontal surface, and the keyboard is directed towards the substantially horizontal surface. (see fig. 14)

***Re-Claim 23, Nobuchi, Aarras and Nishiyama as a whole teach all the limitations of claim 1, Nobuchi further discloses***, wherein the frame mode (fig. 14) is configured to display to a user on the single display (3) component the first content mode having the first content display orientation (fig. 16(a)).

***Re-Claim 24, Nobuchi, Aarras and Nishiyama as a whole teach all the limitations of claim 1, Nobuchi further discloses***, wherein the portable computer is configured to prevent the portable computer from responding to keyboard input when the portable computer is in the frame mode (fig. 14).

#### ***Contact Information***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sosina Abebe whose telephone number is (571) 270-7929. The examiner can normally be reached on Mon-Thurs from 9:00-5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, LunYi Lao can be reached on (571) 272-7671. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for



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unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/S. A./

Examiner, Art Unit 2629

/Grant D Sitta/

Primary Examiner, Art Unit 2629

<b>Electronic Acknowledgement Receipt</b>	
<b>EFS ID:</b>	13953232
<b>Application Number:</b>	12170939
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	1986
<b>Title of Invention:</b>	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS
<b>First Named Inventor/Applicant Name:</b>	Yves Behar
<b>Customer Number:</b>	37462
<b>Filer:</b>	Matthew H. Grady/Matthew Grady
<b>Filer Authorized By:</b>	Matthew H. Grady
<b>Attorney Docket Number:</b>	L2039-700110
<b>Receipt Date:</b>	10-OCT-2012
<b>Filing Date:</b>	10-JUL-2008
<b>Time Stamp:</b>	15:56:09
<b>Application Type:</b>	Utility under 35 USC 111(a)

**Payment information:**

Submitted with Payment	no
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**File Listing:**

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	L2039-700110_- _Miscellaneous_Letter_1.PDF	23430 <small>c064867702d39d8436e63db3b2bd3f08e434d8d1</small>	no	2

**Warnings:**

**Information:**

2	Post Allowance Communication - Incoming	L2039-700110_- _Non_Final_Office_Action_App _No_12170951_L2039_700111 _2.pdf	611861  8043966d1cee428a1da56001facb08a6baa5843d	no	19
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>				635291	
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  <b>If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  <b>If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  <b>If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</b></p>					



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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/170,939	10/16/2012	8289688	L2039-700110	1986

37462 7590 09/26/2012

LANDO & ANASTASI, LLP  
ONE MAIN STREET, SUITE 1100  
CAMBRIDGE, MA 02142

### ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

#### **Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)** (application filed on or after May 29, 2000)

The Patent Term Adjustment is 182 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

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Christopher Hibmacronan, Oakland, CA;  
Naoya Edahiro, San Francisco, CA;  
Matthew David Day, San Francisco, CA;


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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number		12170939
Filing Date		2008-07-10
First Named Inventor	Yves Behar	
Art Unit		2835
Examiner Name	Adrian S. Wilson	
Attorney Docket Number		L2039-700110

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	21	D517541		2006-03-21	Maskatia	
	22	D518042		2006-03-28	Kanayama	
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939	
	Filing Date		2008-07-10	
	First Named Inventor	Yves Behar		
	Art Unit	2835		
	Examiner Name	Adrian S. Wilson		
	Attorney Docket Number	L2039-700110		

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Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	
/A.W./	1	6661426	B1	2003-12-09	Jetha		
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	5	D605635		12 2009-04-06	Edahiro et al.		
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939	
	Filing Date		2008-07-10	
	First Named Inventor	Yves Behar		
	Art Unit	<del>2445</del> 2835		
	Examiner Name	<del>Not Yet Assigned</del> Adrian Wilson		
	Attorney Docket Number	A2029-700110		

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	12	6343006		2002-01-29	Jerry Moscovitch et al.	
Change(s) applied to document, /R.M.L./ 6/4/2012	13	6377444		<sup>2</sup> <del>2003</del> -04-23	Scott D. Price et al.	
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Change(s) applied  
to document,  
/M.J.G./  
6/6/2012

FIG. 25  
~~FIG. 24~~ is an illustration of a hinge assembly coupled to a computer frame, according to aspects of the invention;

FIG. 26 is an illustration of the portable computer configured into a “frame” mode, according to aspects of the invention; and

5 FIG. 27 is an illustration of the portable computer configured into a “flat” mode, according to aspects of the invention.

#### DETAILED DESCRIPTION

Aspects and embodiments are directed to a portable computer that is configurable

10 between different operating modes, including a laptop mode (in which the portable computer has a conventional laptop appearance), a flat mode, a frame mode, and an easel mode in which the base of the computer and its display component stand vertically forming an inverted “V,” as discussed further below. The portable computer is capable of different display formats and functionality in the different modes, and includes a graphical user

15 interface that may work seamlessly with the computer hardware to provide a unified, comfortable, holistic user experience. In particular, the portable computer may provide access to a wide array of functions, both those traditionally provided by computing devices and those traditionally provided by other passive information devices. For example, the hardware and software, including the graphical user interface, of the portable computer may be focused

20 toward providing access to entertainment media, such as audio and video (e.g., playing music, streaming video, viewing photographs, etc.), email, and internet, while also providing state-of-the-art computer processing capability.

It is to be appreciated that embodiments of the methods and apparatuses discussed herein are not limited in application to the details of construction and the arrangement of

25 components set forth in the following description or illustrated in the accompanying drawings. The methods and apparatuses are capable of implementation in other embodiments and of being practiced or of being carried out in various ways. Examples of specific implementations are provided herein for illustrative purposes only and are not intended to be limiting. In particular, acts, elements and features discussed in connection with any one or

30 more embodiments are not intended to be excluded from a similar role in any other



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	First Named Inventor	Yves Behar		
	Art Unit	2835		
	Examiner Name	A. S. Wilson		
	Attorney Docket Number	L2039-700110		

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939	12170939 - GAU: 2835
	Filing Date		2008-07-10	
	First Named Inventor	Yves Behar		
	Art Unit	2835		
	Examiner Name	A. S. Wilson		
	Attorney Docket Number	L2039-700110		

1	Office Action L2039-700111 dated April 4, 2011, Serial No. 12/170,951	<input type="checkbox"/>
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**EXAMINER SIGNATURE**

Examiner Signature	/Adrian Wilson/	Date Considered	07/16/2012
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**\*EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> See Kind Codes of USPTO Patent Documents at [www.USPTO.GOV](http://www.USPTO.GOV) or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number	12170939	12170939 - GAU: 2835
	Filing Date	2008-07-10	
	First Named Inventor	Yves Behar	
	Art Unit	2835	
	Examiner Name	A. S. Wilson	
	Attorney Docket Number	L2039-700110	

**CERTIFICATION STATEMENT**

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

**OR**

That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

**SIGNATURE**

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Matthew H. Grady/	Date (YYYY-MM-DD)	2012-07-09
Name/Print	Matthew H. Grady	Registration Number	52957

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

## Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.W./



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
12/170,939 07/10/2008 Yves Behar L2039-700110 1986

37462 7590 07/23/2012
LANDO & ANASTASI, LLP
ONE MAIN STREET, SUITE 1100
CAMBRIDGE, MA 02142

EXAMINER

WILSON, ADRIAN S

ART UNIT PAPER NUMBER

2835

NOTIFICATION DATE DELIVERY MODE

07/23/2012

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@LALaw.com
gengelso@LALaw.com



**UNITED STATES DEPARTMENT OF COMMERCE**  
**U.S. Patent and Trademark Office**  
 Address : COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450

<b>APPLICATION NO./ CONTROL NO.</b>	<b>FILING DATE</b>	<b>FIRST NAMED INVENTOR / PATENT IN REEXAMINATION</b>	<b>ATTORNEY DOCKET NO.</b>
12/170,939	10 July, 2008	BEHAR ET AL.	L2039-700110

LANDO & ANASTASI, LLP ONE MAIN STREET, SUITE 1100 CAMBRIDGE, MA 02142	<b>EXAMINER</b>	
	ADRIAN S. WILSON	
	<b>ART UNIT</b>	<b>PAPER</b>
	2835	20120716

DATE MAILED:

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner for Patents**

The IDS submitted on 07/09/2012 has been considered. In the examiner's opinion, it does not affect the condition of allowability of the claims as noted in the notice of allowance mailed 04/13/2012.

/ADRIAN S WILSON/  
Examiner, Art Unit 2835

**PART B -FEE(S) TRANSMITTAL**

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE  
 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 or **Fax** (571) 273-2885

**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

LANDO & ANASTASI LLP  
 Riverfront Office Park  
 One Main Street  
 Suite 1100  
 Cambridge, Massachusetts 02142

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/170,939	07/10/2008	Yves Behar	L2039-700110	1986

TITLE OF INVENTION: PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	no	\$1,740.00	\$300.00		\$2,040.00	07/13/2012

EXAMINER	ART UNIT	CLASS-SUBCLASS
A. S. Wilson	2835	

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
- Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached.
- Use of a Customer Number is required.**
2. For printing on the patent front page, list
- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, \_\_\_\_\_ 1
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. \_\_\_\_\_ 2
- \_\_\_\_\_ 3

**3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)**

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

LiTL, LLC

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

33 Exeter Street,  
 Boston, Massachusetts 02116

Please check the appropriate assignee category or categories (will not be printed on the patent):  Individual  Corporation or other private group entity  Government

**4a. The following fee(s) are enclosed:**

- Issue Fee
- Publication Fee (No small entity discount permitted)
- Advance Order - # of Copies \_\_\_\_\_

**4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)**

- A check is enclosed.
- Payment by credit card. Form PTO-2038 is attached.
- The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 50/2762 (enclose an extra copy of this form).

**5. Change in Entity Status (from status indicated above)**

- a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.  b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) 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 United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_ /Matthew H. Grady/ Date \_\_\_\_\_ July 13, 2012

Typed or printed name \_\_\_\_\_ Matthew H. Grady Registration No. \_\_\_\_\_ 52,957

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	12170939			
<b>Filing Date:</b>	10-Jul-2008			
<b>Title of Invention:</b>	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS			
<b>First Named Inventor/Applicant Name:</b>	Yves Behar			
<b>Filer:</b>	Matthew H. Grady/Paula Sullivan			
<b>Attorney Docket Number:</b>	L2039-700110			
Filed as Large Entity				
<b>Utility under 35 USC 111(a) Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
Publ. Fee- early, voluntary, or normal	1504	1	300	300
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
Utility Appl issue fee	1501	1	1740	1740



Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Extension-of-Time:</b>				
<b>Miscellaneous:</b>				
<b>Total in USD (\$)</b>				<b>2040</b>

<b>Electronic Acknowledgement Receipt</b>	
<b>EFS ID:</b>	13245227
<b>Application Number:</b>	12170939
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	1986
<b>Title of Invention:</b>	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS
<b>First Named Inventor/Applicant Name:</b>	Yves Behar
<b>Customer Number:</b>	37462
<b>Filer:</b>	Matthew H. Grady
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	L2039-700110
<b>Receipt Date:</b>	13-JUL-2012
<b>Filing Date:</b>	10-JUL-2008
<b>Time Stamp:</b>	12:55:23
<b>Application Type:</b>	Utility under 35 USC 111(a)

**Payment information:**

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$2040
RAM confirmation Number	10405
Deposit Account	502762
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

- Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)
- Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)  
 Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)  
 Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

**File Listing:**

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	L2039-700110_- _L2039-700110- Issue_Fee_Filed_1.pdf	178331  082dfec2f8a8a5b279c18c75fb9c958c22f74755c	no	1

**Warnings:**

**Information:**

2	Fee Worksheet (SB06)	fee-info.pdf	32273  5fee5a8bbfde1dc8544ae3b090f87e4f90ae4052	no	2
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**Warnings:**

**Information:**

<b>Total Files Size (in bytes):</b>			210604
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**This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.**

**New Applications Under 35 U.S.C. 111**

**If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.**

**National Stage of an International Application under 35 U.S.C. 371**

**If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.**

**New International Application Filed with the USPTO as a Receiving Office**

**If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.**

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939	
	Filing Date		2008-07-10	
	First Named Inventor	Yves Behar		
	Art Unit	2835		
	Examiner Name	A. S. Wilson		
	Attorney Docket Number	L2039-700110		

U.S.PATENTS							Remove
Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	
	1						

If you wish to add additional U.S. Patent citation information please click the Add button. Add

U.S.PATENT APPLICATION PUBLICATIONS							Remove
Examiner Initial*	Cite No	Publication Number	Kind Code <sup>1</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	
	1						

If you wish to add additional U.S. Published Application citation information please click the Add button. Add

FOREIGN PATENT DOCUMENTS								Remove
Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup> j	Kind Code <sup>4</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
	1							<input type="checkbox"/>

If you wish to add additional Foreign Patent Document citation information please click the Add button. Add

NON-PATENT LITERATURE DOCUMENTS				Remove
Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.		T <sup>5</sup>

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939
	Filing Date		2008-07-10
	First Named Inventor	Yves Behar	
	Art Unit		2835
	Examiner Name	A. S. Wilson	
	Attorney Docket Number		L2039-700110

	1	Office Action L2039-700111 dated April 4, 2011, Serial No. 12/170,951	<input type="checkbox"/>
--	---	---	--------------------------

If you wish to add additional non-patent literature document citation information please click the Add button **Add**

**EXAMINER SIGNATURE**

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

**\*EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> See Kind Codes of USPTO Patent Documents at [www.USPTO.GOV](http://www.USPTO.GOV) or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939
	Filing Date		2008-07-10
	First Named Inventor	Yves Behar	
	Art Unit		2835
	Examiner Name	A. S. Wilson	
	Attorney Docket Number		L2039-700110

**CERTIFICATION STATEMENT**

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

**OR**

That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

**SIGNATURE**

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Matthew H. Grady/	Date (YYYY-MM-DD)	2012-07-09
Name/Print	Matthew H. Grady	Registration Number	52957

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
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9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with 37 CFR § 1.6(a)(4).

Dated: July 9, 2012  
Electronic Signature for Matthew H. Grady: /Matthew H. Grady/

Docket No.: L2039-700110  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Yves Behar et al.

Application No.: 12/170,939

Confirmation No.: 1986

Filed: July 10, 2008

Art Unit: 2835

For: PORTABLE COMPUTER WITH MULTIPLE  
DISPLAY CONFIGURATIONS

Examiner: A. S. Wilson

**INFORMATION DISCLOSURE STATEMENT (IDS)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Madam:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed after the mailing date of a Final Office Action or Notice of Allowance, whichever occurred first, but on or before payment of the Issue Fee (37 CFR 1.97(d)). Applicant(s) hereby petition(s) that the Information Disclosure Statement be considered.

I hereby certify, pursuant to 37 CFR 1.97(e)(2), that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, no item of information contained in this Information Disclosure Statement (Office Action L2039-700111 dated April 4, 2011, Serial No. 12/170,951) was known to any individual

1321915.1



designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

A copy of only those references listed below is attached:

<b>Other Documents</b>
Office Action L2039-700111 dated April 4, 2011, Serial No. 12/170,951

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

Please charge our Deposit Account No. 50/2762 in the amount of \$180.00 covering the fee set forth in 37 CFR 1.17(p). The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 50/2762, under Order No. L2039-700110.

Dated: July 9, 2012

Respectfully submitted,

Electronic signature: /Matthew H. Grady/  
Matthew H. Grady  
Registration No.: 52,957  
LANDO & ANASTASI LLP  
Riverfront Office Park  
One Main Street  
Suite 1100  
Cambridge, Massachusetts 02142  
(617) 395-7000  
Attorney for Applicant

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	12170939			
<b>Filing Date:</b>	10-Jul-2008			
<b>Title of Invention:</b>	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS			
<b>First Named Inventor/Applicant Name:</b>	Yves Behar			
<b>Filer:</b>	Matthew H. Grady/Paula Sullivan			
<b>Attorney Docket Number:</b>	L2039-700110			
Filed as Large Entity				
<b>Utility under 35 USC 111(a) Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
<b>Extension-of-Time:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
Submission- Information Disclosure Stmt	1806	1	180	180
<b>Total in USD (\$)</b>				<b>180</b>

<b>Electronic Acknowledgement Receipt</b>	
<b>EFS ID:</b>	13201623
<b>Application Number:</b>	12170939
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	1986
<b>Title of Invention:</b>	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS
<b>First Named Inventor/Applicant Name:</b>	Yves Behar
<b>Customer Number:</b>	37462
<b>Filer:</b>	Matthew H. Grady
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	L2039-700110
<b>Receipt Date:</b>	09-JUL-2012
<b>Filing Date:</b>	10-JUL-2008
<b>Time Stamp:</b>	14:09:19
<b>Application Type:</b>	Utility under 35 USC 111(a)

**Payment information:**

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$180
RAM confirmation Number	210
Deposit Account	502762
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

- Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)
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**File Listing:**

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	L2039-700110_- _Information_Disclosure_State ment_Fillable_PDF_1.pdf	612108  85f8914cb92e46400e64903ff871571fd42dd84d	no	4
<b>Warnings:</b>					
<b>Information:</b>					
A U.S. Patent Number Citation or a U.S. Publication Number Citation is required in the Information Disclosure Statement (IDS) form for autoloading of data into USPTO systems. You may remove the form to add the required data in order to correct the Informational Message if you are citing U.S. References. If you chose not to include U.S. References, the image of the form will be processed and be made available within the Image File Wrapper (IFW) system. However, no data will be extracted from this form. Any additional data such as Foreign Patent Documents or Non Patent Literature will be manually reviewed and keyed into USPTO systems.					
2	Transmittal Letter	L2039-700110_- _Information_Disclosure_State ment_IDS_2.PDF	26425  b355a0577910ad386025eceed2f9312c4f43081	no	2
<b>Warnings:</b>					
<b>Information:</b>					
3	Non Patent Literature	L2039-700111_- _Office_Action_L2039_700111 _dated_April_4_2011_1217095 1_3.pdf	333917  087160dfc575db7026d48d717413bad9785f94c6	no	11
<b>Warnings:</b>					
<b>Information:</b>					
4	Fee Worksheet (SB06)	fee-info.pdf	30610  e4af3897d7c0ac1c1c68a9345e5f829f600311f	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			1003060		

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**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



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NOTICE OF ALLOWANCE AND FEE(S) DUE

37462 7590 04/13/2012
LANDO & ANASTASI, LLP
ONE MAIN STREET, SUITE 1100
CAMBRIDGE, MA 02142

EXAMINER

WILSON, ADRIAN S

ART UNIT PAPER NUMBER

2835

DATE MAILED: 04/13/2012

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
12/170,939 07/10/2008 Yves Behar L2039-700110 1986

TITLE OF INVENTION: PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS

Table with 7 columns: APPLN. TYPE, SMALL ENTITY, ISSUE FEE DUE, PUBLICATION FEE DUE, PREV. PAID ISSUE FEE, TOTAL FEE(S) DUE, DATE DUE
nonprovisional NO \$1740 \$300 \$0 \$2040 07/13/2012

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) 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. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY 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 the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

**PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 or Fax (571)-273-2885**

**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

37462 7590 04/13/2012  
**LANDO & ANASTASI, LLP**  
 ONE MAIN STREET, SUITE 1100  
 CAMBRIDGE, MA 02142

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

_____	(Depositor's name)
_____	(Signature)
_____	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/170,939	07/10/2008	Yves Behar	L2039-700110	1986

TITLE OF INVENTION: PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1740	\$300	\$0	\$2040	07/13/2012

EXAMINER	ART UNIT	CLASS-SUBCLASS
WILSON, ADRIAN S	2835	361-679300

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  
 "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,  
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 \_\_\_\_\_  
 2 \_\_\_\_\_  
 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE \_\_\_\_\_

(B) RESIDENCE: (CITY and STATE OR COUNTRY) \_\_\_\_\_

Please check the appropriate assignee category or categories (will not be printed on the patent):  Individual  Corporation or other private group entity  Government

4a. The following fee(s) are submitted:

- Issue Fee  
 Publication Fee (No small entity discount permitted)  
 Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- A check is enclosed.  
 Payment by credit card. Form PTO-2038 is attached.  
 The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.  b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) 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 United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
Row 1: 12/170,939, 07/10/2008, Yves Behar, L2039-700110, 1986
Row 2: 37462, 7590, 04/13/2012, (Empty), (Empty)
Text: LANDO & ANASTASI, LLP, ONE MAIN STREET, SUITE 1100, CAMBRIDGE, MA 02142
Row 3: (Empty), (Empty), (Empty), EXAMINER, (Empty)
Text: WILSON, ADRIAN S
Row 4: (Empty), (Empty), (Empty), ART UNIT, PAPER NUMBER
Text: 2835

DATE MAILED: 04/13/2012

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 197 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 197 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

## Privacy Act Statement

**The Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	12/170,939	BEHAR ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	ADRIAN S. WILSON	2835	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All 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 (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to amendments filed 03/07/2012.
2.  An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
3.  The allowed claim(s) is/are 1-9, 11-13, 15-21 and 23-35.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some\*    c)  None    of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_ .
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_.
    - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date ____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date ____ .</li> <li>7. <input type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other ____.</li> </ol> |
|--|---|

/ADRIAN S WILSON/  
Examiner, Art Unit 2835

### **Allowance**

1. Claims 1-9, 11-13, 15-21 and 23-35 are allowed.

#### ***Claim Interpretation, 35 USC § 112, 6<sup>th</sup> Paragraph***

2. The following is a quotation of the sixth paragraph of 35 U.S.C. 112:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

3. Per MPEP 2181, a claim limitation will be presumed to invoke 35 U.S.C. 112, sixth paragraph, if it meets the following 3-prong analysis:

- (A) the claim limitations must use the phrase “means for ” or “step for; ”
- (B) the “means for ” or “step for ” must be modified by functional language;  
and
- (C) the phrase “means for ” or “step for ” must not be modified by sufficient structure, material, or acts for achieving the specified function.

4. Applicant has stated in Applicant’s Arguments, pp. 9-10, submitted 11/03/2010, that applicant intends to invoke §112, 6<sup>th</sup> paragraph for Claim 12. In re Claim 12, the limitation “means for rotating the display component in a single direction relative to the base to configure the portable computer between a laptop mode and an easel mode” meets the three-prong test per MPEP 2181 and thereby invokes 35 USC § 112, 6<sup>th</sup> Paragraph. For the “means for rotating” limitation, the incorporated limitations from applicant's specification are applicant's hinge assembly 138 and all associated parts (housing 142, shaft 154, springs 156, member 158, bracket 140), as disclosed in paragraphs 0067-0068 and Figures 7a-10.

5. In re Claim 12, the limitation “means for detecting an orientation of the base relative to the display component” meets the three-prong test per MPEP 2181 and thereby invokes 35 USC § 112, 6<sup>th</sup> Paragraph. For the “means for detecting” limitation, the incorporated limitations from applicant's specification are applicant's sensor which is not shown in the drawings but is described in paragraphs 0011, 0015, 0059-0061 and 0063.

***Reasons for Allowance***

6. The specific limitations of “a single display component including a display screen” and “wherein rotating either the single display component or the base by the operator about the single longitudinal axis beyond approximately 180 degrees from the closed mode configures the portable computer into the easel mode; and wherein in the easel mode the single display component is oriented facing the operator with the keyboard oriented away from the operator” in Claim 1 are not anticipated or made obvious by the prior art of record in the examiner's opinion. The specific limitations of “means for rotating the display component in a single direction relative to the base to configure the portable computer between a laptop mode and an easel mode” in Claim 12 is not anticipated or made obvious by the prior art of record in the examiner's opinion. Note that this "means for" clause invokes §112, sixth paragraph. See, supra, pp. 1-2. The specific limitations of “an integrated navigation hardware control configured to control features and manipulate content displayed on the portable computer, wherein the ...control is accessible in each of the plurality of modes including when the keyboard is inaccessible or oriented away from the user” in Claim 13 are not

Art Unit: 2835

anticipated or made obvious by the prior art of record in the examiner's opinion. The specific limitations of "determining a display mode based, at least in part, on the act of comparing the degree of rotation with respect to the threshold degree of rotation" or "orienting the visual display shown on the display screen of the single display component towards an operator for operation of the portable computer in each of the plurality of display modes, wherein the plurality of display modes includes a laptop mode with the integrated keyboard and display oriented towards the operation and an easel mode with the display oriented towards the operator and the keyboard oriented away from the operator" in combination with all remaining limitations of Claim 19 are not anticipated or made obvious by the prior art of record in the examiner's opinion. The specific limitations of "triggering a display inversion from one of the first and second content display orientations to the other of the first and second content display orientations responsive to the orientation sensor detecting the change between the easel mode and the frame mode" in combination with all remaining limitations of Claim 21 are not anticipated or made obvious by the prior art of record in the examiner's opinion. The specific limitations of "wherein the plurality of modes includes at least the laptop mode wherein the single display component and the keyboard are oriented towards an operator and the easel mode wherein the single display component is oriented towards an operator and the keyboard is oriented away from the operator" and "configuring a content orientation, relative to the longitudinal axis, of a visual display on the display screen of the single display component responsive to the display mode, wherein configuring the content orientation includes: displaying the visual display in a

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first content orientation of the content for the laptop mode, and displaying the visual display in a second content orientation for the easel mode, the second content orientation being at 180 degrees relative to the first orientation” in combination with all remaining limitations of Claim 32 are not anticipated or made obvious by the prior art of record in the examiner's opinion.

7. For example, Schweizer et al. (US Patent 7,061,472) discloses a portable computer configurable between a plurality of display modes including a closed mode, a laptop mode and an easel mode, the portable computer comprising: a display component 2 including a display screen; a base 4; a hinge assembly 3 at least partially housed within the base 4 and the display component 2 and configured to pivotally couple the display 2 to the base 4, wherein the hinge assembly 3 defines a single axis of rotation along an interface between the display 2 and the base 4, and wherein the display 2 and the base 4 are rotatable about a single longitudinal axis; wherein, in the closed mode, the display 2 is disposed substantially against the base 4 (as shown in Figure 3); wherein rotating the display or base about the axis up to approximately 180 degrees from the closed mode configures the portable computer into the laptop mode (as shown in Figure 1); and wherein rotating the display 2 or base 4 about the axis beyond 180 degrees from the closed mode configures the portable computer into the easel mode (See Figure 4). However, relating to **Claim 1**, Schweizer does not disclose “a single display component including a display screen” or “wherein rotating either the single display component or the base by the operator about the single longitudinal axis beyond approximately 180 degrees from the closed mode configures the portable

computer into the easel mode; and wherein in the easel mode the single display component is oriented facing the operator with the keyboard oriented away from the operator." Also, in addition to above and relating to **Claim 12**, Schweizer does not disclose a hinge assembly with a shaft, springs, member and bracket like that disclosed in applicant's specification paragraphs 0067-0068 and Figures 7a-10. Also, in addition to the above and relating to **Claim 13**, Schweizer also does not disclose "an integrated navigation hardware control configured to control features and manipulate content displayed on the portable computer, wherein the ...control is accessible in each of the plurality of modes including when the keyboard is inaccessible or oriented away from the user." Also, in addition to above and relating to **Claim 19**, Schweizer does not disclose "determining a display mode based, at least in part, on the act of comparing the degree of rotation with respect to the threshold degree of rotation" or "orienting the visual display shown on the display screen of the single display component towards an operator for operation of the portable computer in each of the plurality of display modes, wherein the plurality of display modes includes a laptop mode with the integrated keyboard and display oriented towards the operation and an easel mode with the display oriented towards the operator and the keyboard oriented away from the operator." Also, in addition to the above and relating to **Claim 21**, Schweizer does not disclose "triggering a display inversion from one of the first and second content display orientations to the other of the first and second content display orientations responsive to the orientation sensor detecting the change between the easel mode and the frame mode." Also, in addition to the above and relating to **Claim 32**, Schweizer does not



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disclose “wherein the plurality of modes includes at least the laptop mode wherein the single display component and the keyboard are oriented towards an operator and the easel mode wherein the single display component is oriented towards an operator and the keyboard is oriented away from the operator” and “configuring a content orientation, relative to the longitudinal axis, of a visual display on the display screen of the single display component responsive to the display mode, wherein configuring the content orientation includes: displaying the visual display in a first content orientation of the content for the laptop mode, and displaying the visual display in a second content orientation for the easel mode, the second content orientation being at 180 degrees relative to the first orientation.”

8. Aarras (US Publication 2006/0264243) discloses a portable computer (See id. at para 0033) comprising: a base 14; a display component 12 rotatably coupled to the base 14; and a hinge assembly 16 rotating the component 12 in a single direction relative to the base 14 to configure the computer between a laptop mode (Figure 2) and an easel mode (Figure 3). See also, id. at para 0039 (disclosing a simpler hinge type that has a single axis of rotation). Aarras also discloses a display orientation module (i.e. controller 24) configured to automatically orient content displayed on the display component 12 responsive to at least a transition (i.e. movement between modes as shown in Figures 1-3) between a laptop mode (Figure 2) and an easel mode (Figure 1 or Figure 3), wherein the module 24 is configured to orient the content displayed between a first display orientation and a second display orientation, the first and second display orientations being 180 degrees relative to each other (See Aarras, paras 0038,

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0048, 0049); and a means for detecting (i.e. sensor 46) an orientation of the base 14 relative the display component 12, wherein the sensor 46 is further configured to identify the transition between the laptop mode and the easel mode base on a stored threshold orientation (i.e. it is inherent that there is a threshold point where the sensor will detect rotation and switch between one image signal and another image signal). "The sensor 46 is coupled to the controller 24. The controller 24 is adapted to change an image displayed on at least one of the displays 30, 32 based, at least partially, upon a signal from the sensor 46 [within the hinge 16] that the [display component and base] 12, 14 have been moved relative to each other, such as moved from a first folded configuration to second folded configuration, and vice versa. ... [T]he sensor 46 can also signal if that movement is a forward flipping movement ... or a reverse flipping movement." Id. at para 0038. Aarras also discloses that there can be displays on both sides of a component/base. Id. at paras 0048-0049. And further discloses that an image can be configured based on the position of the display (i.e. what mode the device is in) to be viewed from a first orientation or from a second orientation 180 degrees relative the first orientation. Id. at para 0049 ("A physical embodiment can comprise sections able to turn completely around; reminiscent to a paper note book ... ."). However, relating to **Claim 1**, Aarras does not disclose wherein the single display and base rotate about a single axis running along an interface between the display and the base, or wherein in the easel mode the single display component is oriented facing the operator with the keyboard oriented away from the operator. However, in relation to **Claim 12**, Aarras does not disclose a hinge assembly with a shaft, springs, member and bracket like that

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disclosed in applicant's specification paragraphs 0067-0068 and Figures 7a-10. Also, in addition to above and relating to **Claim 13**, Aarras does not disclose an integrated navigation hardware control configured to control features and manipulate content displayed on the portable computer, wherein the ...control is accessible in each of the plurality of modes including when the keyboard is inaccessible or oriented away from the user. Also in addition to above and relating to **Claim 19**, Aarras does not disclose "determining a display mode based, at least in part, on the act of comparing the degree of rotation with respect to the threshold degree of rotation" or "orienting the visual display shown on the display screen of the single display component towards an operator for operation of the portable computer in each of the plurality of display modes, wherein the plurality of display modes includes a laptop mode with the integrated keyboard and display oriented towards the operation and an easel mode with the display oriented towards the operator and the keyboard oriented away from the operator." Also, in addition to the above and relating to **Claim 21**, Aarras does not disclose "triggering a display inversion from one of the first and second content display orientations to the other of the first and second content display orientations responsive to the orientation sensor detecting the change between the easel mode and the frame mode." Also, in addition to the above and relating to **Claim 32**, Aarras does not disclose "wherein the plurality of modes includes at least the laptop mode wherein the single display component and the keyboard are oriented towards an operator and the easel mode wherein the single display component is oriented towards an operator and the keyboard is oriented away from the operator" and "configuring a content orientation,

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relative to the longitudinal axis, of a visual display on the display screen of the single display component responsive to the display mode, wherein configuring the content orientation includes: displaying the visual display in a first content orientation of the content for the laptop mode, and displaying the visual display in a second content orientation for the easel mode, the second content orientation being at 180 degrees relative to the first orientation.”

9. Furthermore, the examiner has performed the assignee and inventor name searches in order to identify documents with possible double patenting issues. No documents with conflicting claims have been found.

#### ***Response to Arguments***

10. Applicant's arguments, see pp. 12-16, filed 03/07/2012, with respect to Claims 1, 12, 13, 19, 21 and 32 have been fully considered and are persuasive. The previous rejections of Claims 1, 13, 19 and 21 have been withdrawn. Please see the reasons for allowance above.

#### ***Conclusion***

11. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

12. The additional prior art made of record is considered pertinent to applicant's disclosure. None of the cited references taken alone or in combination render the present invention unpatentable as claimed.

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADRIAN S. WILSON whose telephone number is (571)270-3907. The examiner can normally be reached on Mon.-Thu. 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jinhee Lee can be reached on (571) 272-1977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ADRIAN S WILSON/  
Examiner, Art Unit 2835

asw

<b>Notice of References Cited</b>	Application/Control No. 12/170,939	Applicant(s)/Patent Under Reexamination BEHAR ET AL.	
	Examiner ADRIAN S. WILSON	Art Unit 2835	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A US-2007/0242421 A1	10-2007	Goschin et al.	361/681
*	B US-2008/0024388 A1	01-2008	Bruce, Oscar	345/1.1
*	C US-2008/0158795 A1	07-2008	Aoki et al.	361/681
*	D US-2009/0190295 A1	07-2009	Chin et al.	361/679.27
	E US-			
	F US-			
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	H US-			
	I US-			
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	K US-			
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**FOREIGN PATENT DOCUMENTS**

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	Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)				
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Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Doc code: IDS

Doc description: Information Disclosure Statement (IDS) Filed

12170939 - GAIL-2835

Approved for use through 07/31/2012. OMB 0651-0031

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939
	Filing Date		2008-07-10
	First Named Inventor	Yves Behar	
	Art Unit	2835	
	Examiner Name	A. S. Wilson	
	Attorney Docket Number	L2039-700110	

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Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	
	1	6295038		2001-09-25	Rebeske		
	2	7698407		2010-04-13	Mattox, Jr. et al.		
	3	5436954		1995-07-25	Nishiyama et al.		
	4	7035665		2006-04-25	Kido et al.		
	5	7869834		2011-01-11	Seol et al.		
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	1	20050221865		2005-10-06	Nishiyama et al.		

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	Filing Date		2008-07-10	
	First Named Inventor	Yves Behar		
	Art Unit		2835	
	Examiner Name	A. S. Wilson		
	Attorney Docket Number		L2039-700110	

	2	20080024465		2008-01-31	Hawkins et al.	
	3	20060238439		2006-10-26	Fuller et al.	
	4	20030107603		2003-06-12	Clapper	
	5	20050083642		2005-04-21	Senpuku et al.	

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	1	Miller, M., "Creating a Digital Home Entertainment System with Windows Media Center", Apr 2006, Que.	<input type="checkbox"/>

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**EXAMINER SIGNATURE**

Examiner Signature	/Adrian Wilson/	Date Considered	04/06/2012
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number	12170939	12170939 - GAU: 2835
	Filing Date	2008-07-10	
	First Named Inventor	Yves Behar	
	Art Unit	2835	
	Examiner Name	A. S. Wilson	
	Attorney Docket Number	L2039-700110	

<sup>1</sup> See Kind Codes of USPTO Patent Documents at [www.USPTO.GOV](http://www.USPTO.GOV) or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number	12170939	12170939 - GAU: 2835
	Filing Date	2008-07-10	
	First Named Inventor	Yves Behar	
	Art Unit	2835	
	Examiner Name	A. S. Wilson	
	Attorney Docket Number	L2039-700110	

**CERTIFICATION STATEMENT**

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

**OR**

That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

**SIGNATURE**

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Matthew H. Grady/	Date (YYYY-MM-DD)	2012-03-07
Name/Print	Matthew H. Grady	Registration Number	52957

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**



**EAST Search History**

**EAST Search History (Prior Art)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
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L4	0	l2 not l3	US-PGPUB; USPAT; EPO; JPO	OR	ON	2012/04/06 18:48
L6	1	12/170939.app.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2012/04/06 18:54
L7	31	("20050052835"   "20050248501"   "20050264536"   "20060089182"   "20060146488"   "20060183505"   "20060187142"   "20060249717"   "20070182663"   "20070242421"   "20080024388"   "20080062625"   "20080158795"   "20090190295"   "20100157518"   "5847698"   "6295038"   "6421235"   "6512497"   "6798649"   "6822635"   "6842338"   "6961239"   "7221330"   "7433179"   "7457108"   "7489286"   "7489503"   "7515406"   "7542273"   "7570483").PN. OR ("7864517").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/06 18:56
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L9	2942	361/679.21,679.26,679.27.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	ON	2012/04/06 20:02

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			EPO; JPO; IBM_TDB			
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S8	2236885	sensor or detector	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:31
S9	234059	laptop or "notebook computer" or "portable computer"	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:31
S10	4561	S7 same S8	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:31
S11	692	S10 and S9	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:31
S12	474291	hinge	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:32
S13	88	S12 and S11	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:32
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S16	23	("20010054988"   "20020005818"   "20020021258"   "20060176557"   "5128662"   "5132839"   "5459825"   "5465315"   "5467102"   "5629833"   "5682529"   "5768096"   "5790371"   "5900848"   "5923307"   "5949643"   "6222507"   "6295038"   "6302612"   "6327482"   "6819304"   "6859219"   "7138962").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:45
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S18	70	(US-20090300511-\$ or US-20080042987-\$ or US-20070182663-\$ or US-20070138806-\$ or US-20050257400-\$ or US-20050210399-\$ or US-20090303676-\$ or US-20090244832-\$ or US-20100085382-\$ or US-20100085274-\$ or US-20100079355-\$ or US-20100066643-\$ or US-20100064536-\$ or US-20100064244-\$ or US-20100060664-\$ or US-20090315867-\$ or US-20090295975-\$ or US-20090275366-\$ or US-20020021258-\$ or US-20020005818-\$ or US-20090115802-\$ or US-20090016003-\$ or US-20080284738-\$ or US-20060268500-\$ or US-20060264243-\$).did. or (US-7250207-\$ or US-7239508-\$ or US-7072179-\$ or US-7061472-\$ or US-6963485-\$ or US-6944012-\$ or US-6829140-\$ or US-6788527-\$ or US-6771494-\$ or US-6697055-\$ or US-6661426-\$ or US-6659516-\$ or US-6628267-\$ or US-6510049-\$ or US-6377444-\$ or US-6343006-\$ or US-6323846-\$ or US-6275376-\$ or US-6266236-\$ or US-6262885-\$ or US-6223393-\$ or US-6005767-\$ or US-5987704-\$ or US-D416003-\$ or US-5949643-\$ or US-5841631-\$).did. or (US-5825352-\$ or US-5796575-\$ or US-5268817-\$ or US-5200913-\$ or US-	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/10 16:42

		4939514-\$ or US-3468576-\$ or US-7138962-\$ or US-6859219-\$ or US-6819304-\$ or US-6327482-\$ or US-6302612-\$ or US-6295038-\$ or US-6222507-\$ or US-5923307-\$ or US-5900848-\$ or US-5790371-\$ or US-5128662-\$ or US-7428142-\$).did. or (US-3468576-\$).did.				
S19	57	("20030048595"   "20030109232"   "20040203535"   "20040228076"   "20050018396"   "20050041378"   "20050063145"   "20050128695"   "20050210399"   "20050257400"   "20050282596"   "20070182663"   "20090244012"   "20090322790"   "20100174993"   "5515345"   "5547698"   "5712760"   "5793355"   "6067224"   "6464195"   "6642909"   "6661426"   "6665175"   "7522946"   "D333636"   "D391927"   "D392944"   "D395868"   "D399526"   "D452238"   "D462069"   "D463797"   "D476326"   "D479708"   "D491177"   "D491936"   "D494162"   "D495674"   "D495694"   "D504128"   "D512997"   "D513509"   "D516552"   "D517541"   "D518042"   "D523429"   "D528541"   "D528993"   "D534531"   "D535292"   "D544846"   "D581371"   "D593085"   "D593086"   "D593091"   "D605635").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:51
S20	6434	flip with image	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:55
S21	0	S19 and S20	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:56
S22	75	(US-20090300511-\$ or US-20080042987-\$ or US-20070182663-\$ or US-20070138806-\$ or US-20050257400-\$ or US-20050210399-\$ or US-20090303676-\$ or US-20090244832-\$ or US-20100085382-\$ or US-20100085274-\$ or US-20100079355-\$ or US-20100066643-\$ or US-20100064536-\$ or US-20100064244-\$ or US-20100060664-\$ or US-20090315867-\$ or US-20090295975-\$ or US-20090275366-\$ or US-20020021258-\$ or US-20020005818-\$ or US-20090115802-\$ or US-20090016003-\$ or US-20080284738-\$ or US-20060268500-\$ or US-20060264243-\$ or US-	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/19 18:56



		20090322790-\$).did. or (US-20090244012-\$ or US-20050282596-\$ or US-20050128695-\$ or US-20050063145-\$).did. or (US-7250207-\$ or US-7239508-\$ or US-7072179-\$ or US-7061472-\$ or US-6963485-\$ or US-6944012-\$ or US-6829140-\$ or US-6788527-\$ or US-6771494-\$ or US-6697055-\$ or US-6661426-\$ or US-6659516-\$ or US-6628267-\$ or US-6510049-\$ or US-6377444-\$ or US-6343006-\$ or US-6323846-\$ or US-6275376-\$ or US-6266236-\$ or US-6262885-\$ or US-6223393-\$ or US-6005767-\$ or US-5987704-\$ or US-D416003-\$ or US-5949643-\$ or US-5841631-\$).did. or (US-5825352-\$ or US-5796575-\$ or US-5268817-\$ or US-5200913-\$ or US-4939514-\$ or US-3468576-\$ or US-7138962-\$ or US-6859219-\$ or US-6819304-\$ or US-6327482-\$ or US-6302612-\$ or US-6295038-\$ or US-6222507-\$ or US-5923307-\$ or US-5900848-\$ or US-5790371-\$ or US-5128662-\$ or US-7428142-\$).did. or (US-3468576-\$).did.				
S23	1	S20 and S22	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:56
S24	444282	(first same second same display) or (multiple with display)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:58
S25	335773	laptop or "portable electronic device" or "notebook computer" or cellphone or "mobile phone"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:59
S26	62373	S25 and S24	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:59
S27	394	S26 and S20	US-PGPUB; USPAT; USOCR;	OR	ON	2011/01/19 18:59

			FPRS; EPO; JPO; IBM_TDB			
S28	2865631	rotate or rotatable or rotating	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:59
S29	216	S28 and S27	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:59
S30	176611	"361".clas.	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:59
S31	5	S30 and S29	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:59
S32	1	12/170939.app.	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 20:40
S33	2562	361/679.21,679.26,679.27.ccls.	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/20 17:56
S34	4952	455/575.1-575.4.ccls.	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/20 17:56
S35	3145	345/168.ccls.	US-	OR	ON	2011/01/20

			PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB			17:57
S36	78	(US-20090300511-\$ or US-20080042987-\$ or US-20070182663-\$ or US-20070138806-\$ or US-20050257400-\$ or US-20050210399-\$ or US-20090303676-\$ or US-20090244832-\$ or US-20100085382-\$ or US-20100085274-\$ or US-20100079355-\$ or US-20100066643-\$ or US-20100064536-\$ or US-20100064244-\$ or US-20100060664-\$ or US-20090315867-\$ or US-20090295975-\$ or US-20090275366-\$ or US-20020021258-\$ or US-20020005818-\$ or US-20090115802-\$ or US-20090016003-\$ or US-20080284738-\$ or US-20060268500-\$ or US-20060264243-\$ or US-20090322790-\$).did. or (US-20090244012-\$ or US-20050282596-\$ or US-20050128695-\$ or US-20050063145-\$ or US-20080062625-\$ or US-20060126284-\$ or US-20050146845-\$).did. or (US-7250207-\$ or US-7239508-\$ or US-7072179-\$ or US-7061472-\$ or US-6963485-\$ or US-6944012-\$ or US-6829140-\$ or US-6788527-\$ or US-6771494-\$ or US-6697055-\$ or US-6661426-\$ or US-6659516-\$ or US-6628267-\$ or US-6510049-\$ or US-6377444-\$ or US-6343006-\$ or US-6323846-\$ or US-6275376-\$ or US-6266236-\$ or US-6262885-\$ or US-6223393-\$ or US-6005767-\$ or US-5987704-\$ or US-D416003-\$ or US-5949643-\$ or US-5841631-\$).did. or (US-5825352-\$ or US-5796575-\$ or US-5268817-\$ or US-5200913-\$ or US-4939514-\$ or US-3468576-\$ or US-7138962-\$ or US-6859219-\$ or US-6819304-\$ or US-6327482-\$ or US-6302612-\$ or US-6295038-\$ or US-6222507-\$ or US-5923307-\$ or US-5900848-\$ or US-5790371-\$ or US-5128662-\$ or US-7428142-\$).did. or (US-3468576-\$).did.	US- PGPUB; USPAT; USOCR	OR	ON	2011/07/25 13:40
S37	15	"easel mode"	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 15:23
S38	1	12/192232.app.	US- PGPUB; USPAT;	OR	ON	2011/08/29 15:24

			USOCR; FPRS; EPO; JPO; IBM_TDB			
S39	28	("5262926"   "5414444"   "5508720"   "5644338"   "5739810"   "5926364"   "5949643"   "5966284"   "6006243"   "6144358"   "6295038"   "6297752"   "6304431"   "6327482"   "6341061"   "6492974"   "6700773"   "6836404").PN. OR ("7061472").URPN.	US- PGPUB; USPAT; USOCR	OR	ON	2011/08/29 15:42
S40	26	("20020024611"   "20020085342"   "20050110961"   "20080136973"   "20090257176"   "20090322967"   "20100039763"   "5483250"   "5510806"   "5719799"   "5748441"   "5847748"   "5880928"   "5898600"   "6262884"   "6437974"   "6504706"   "6525750"   "6650532"   "6806850"   "6930669"   "7059732"   "7061472"   "7083289"   "7110052"   "7641348").PN. OR ("7911783").URPN.	US- PGPUB; USPAT; USOCR	OR	ON	2011/08/29 15:43
S41	1	"7467356".did.	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 17:18
S42	1	12/170951.app.	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 17:19
S43	3	"20070247446".did. "20040001049".did. "20020010707".did.	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 17:21
S44	78	("4965559"   "5049862"   "5467102"   "5584054"   "5646649"   "5847698"   "5856819"   "5914706"   "5949643"   "5995085").PN. OR ("6144358").URPN.	US- PGPUB; USPAT; USOCR	OR	ON	2011/08/29 20:06
S45	58350	accelerometer	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:52
S46	92	(US-20090300511-\$ or US- 20080042987-\$ or US-20070182663-\$	US- PGPUB;	OR	ON	2011/08/29 20:52

		or US-20070138806-\$ or US-20050257400-\$ or US-20050210399-\$ or US-20090303676-\$ or US-20090244832-\$ or US-20100085382-\$ or US-20100085274-\$ or US-20100079355-\$ or US-20100066643-\$ or US-20100064536-\$ or US-20100064244-\$ or US-20100060664-\$ or US-20090315867-\$ or US-20090295975-\$ or US-20090275366-\$ or US-20020021258-\$ or US-20020005818-\$ or US-20090115802-\$ or US-20090016003-\$ or US-20080284738-\$ or US-20060268500-\$ or US-20060264243-\$ or US-20090322790-\$.did. or (US-20090244012-\$ or US-20050282596-\$ or US-20050128695-\$ or US-20050063145-\$ or US-20080062625-\$ or US-20060126284-\$ or US-20050146845-\$ or US-20100039064-\$ or US-20100039764-\$ or US-20110061277-\$ or US-20040001049-\$ or US-20020010707-\$ or US-20070247446-\$.did. or (US-7250207-\$ or US-7239508-\$ or US-7072179-\$ or US-7061472-\$ or US-6963485-\$ or US-6944012-\$ or US-6829140-\$ or US-6788527-\$ or US-6771494-\$ or US-6697055-\$ or US-6661426-\$ or US-6659516-\$ or US-6628267-\$ or US-6510049-\$ or US-6377444-\$ or US-6343006-\$ or US-6323846-\$ or US-6275376-\$ or US-6266236-\$ or US-6262885-\$ or US-6223393-\$ or US-6005767-\$ or US-5987704-\$ or US-D416003-\$ or US-5949643-\$ or US-5841631-\$.did. or (US-5825352-\$ or US-5796575-\$ or US-5268817-\$ or US-5200913-\$ or US-4939514-\$ or US-3468576-\$ or US-7138962-\$ or US-6859219-\$ or US-6819304-\$ or US-6327482-\$ or US-6302612-\$ or US-6295038-\$ or US-6222507-\$ or US-5923307-\$ or US-5900848-\$ or US-5790371-\$ or US-5128662-\$ or US-7428142-\$ or US-7911783-\$ or US-6437974-\$ or US-6492974-\$ or US-6341061-\$ or US-6144358-\$ or US-5926364-\$ or US-7467356-\$ or US-7932894-\$.did. or (US-3468576-\$.did.	USPAT; USOCR			
S47	12	S46 and S45	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:52
S48	1726223	sensor	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2011/08/29 20:53

			EPO; JPO; IBM_TDB			
S49	47192	S45 and S48	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:53
S50	32980	S45 with S48	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:53
S51	1060400	computer and display	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:53
S52	12976	S51 and S50	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:53
S53	202509	laptop	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:53
S54	3494	S52 and S53	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:53
S55	484	361/679.26.ccls.	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:54
S56	7	S55 and S54	US- PGPUB;	OR	ON	2011/08/29 20:54

			USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB			
S57	181346	"361".clas.	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:54
S58	33	S54 and S57	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:54
S59	2770	361/679.21,679.26,679.27.ccls.	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 21:14
S60	5334	455/575.1-575.4.ccls.	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 21:14
S61	1	12/170939.app.	US- PGPUB; USPAT; EPO; JPO	OR	ON	2012/03/06 11:10

**EAST Search History (Interference)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L11	1183	361/679.27,679.3.ccls. 455/575.3.ccls.	US- PGPUB	OR	ON	2012/04/06 20:04
L12	4869	(configuration with display).clm.	US- PGPUB	OR	ON	2012/04/06 20:05
L13	7720	accelerometer.clm.	US- PGPUB	OR	ON	2012/04/06 20:05
L14	6188	laptop.clm.	US- PGPUB	OR	ON	2012/04/06 20:05
L15	22295	(laptop or "portable electronic device" or "notebook computer" or cellphone or "mobile phone").clm.	US- PGPUB	OR	ON	2012/04/06 20:05
L16	216422	sensor.clm.	US-	OR	ON	2012/04/06


EAST Search History

			PGPUB			20:05
L17	218864	I13 or I16	US- PGPUB	OR	ON	2012/04/06 20:06
L18	2614	I15 and I17	US- PGPUB	OR	ON	2012/04/06 20:06

**4/ 6/ 2012 8:07:57 PM**

**C:\Users\awilson3\Documents\Workspaces\12-170939.wsp**



<b>Search Notes</b>  	<b>Application/Control No.</b>  12170939	<b>Applicant(s)/Patent Under Reexamination</b>  BEHAR ET AL.
	<b>Examiner</b>  ADRIAN S WILSON	<b>Art Unit</b>  2835

SEARCHED			
Class	Subclass	Date	Examiner
361/679	679.21, 679.26, 679.27	07/01/2010	asw
455	575.1-575.4	07/01/2010	asw
345	168	07/01/2010	asw
361	679.21, 679.26, 679.27	1/20/2011	asw
455	575.1-575.4	1/20/2011	asw
345	168	1/20/2011	asw
361	679.21, 679.26, 679.27	08/29/2011	asw
455	575.1-575.4	08/29/2011	asw
345	168	08/29/2011	asw
361	679.21, 679.26, 679.27	04/06/2012	asw
455	575.1-575.4	04/06/2012	asw

SEARCH NOTES		
Search Notes	Date	Examiner
inventor and assignee search	07/01/2010	asw
East Search	07/01/2010	asw
Updated East Search	1/20/2011	asw
Updated East Search	08/29/2011	asw
Updated East Search	04/06/2012	asw

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner
361 (pg pub)	679.27,679.3	04/06/2012	asw
455 (pg pub)	575.3	04/06/2012	asw
pg pub	text search within claim language	04/06/2012	asw

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Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
12/170,939 07/10/2008 Yves Behar L2039-700110 1986

37462 7590 03/09/2012
LANDO & ANASTASI, LLP
ONE MAIN STREET, SUITE 1100
CAMBRIDGE, MA 02142

EXAMINER

WILSON, ADRIAN S

ART UNIT PAPER NUMBER

2835

NOTIFICATION DATE DELIVERY MODE

03/09/2012

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@LALaw.com
gengelso@LALaw.com

<b>Applicant-Initiated Interview Summary</b>	<b>Application No.</b> 12/170,939	<b>Applicant(s)</b> BEHAR ET AL.	
	<b>Examiner</b> ADRIAN S. WILSON	<b>Art Unit</b> 2835	

All participants (applicant, applicant's representative, PTO personnel):

(1) ADRIAN S. WILSON. (3)\_\_\_\_\_.

(2) Matthew Grady (52,957). (4)\_\_\_\_\_.

Date of Interview: 06 March 2012.

Type:  Telephonic  Video Conference  
 Personal [copy given to:  applicant  applicant's representative]

Exhibit shown or demonstration conducted:  Yes  No.  
If Yes, brief description: \_\_\_\_\_.

Issues Discussed 101 112 102 103 Others  
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 1.

Identification of prior art discussed: Schweizer (of record).

Substance of Interview  
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

Applicant proposed amendments to Claim 1. An agreement was not reached as to the patentability of Claim 1, however the examiner will consider future arguments. Amended claims will require a new search..

**Applicant recordation instructions:** The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview

**Examiner recordation instructions:** Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

Attachment

/ADRIAN S WILSON/  
Examiner, Art Unit 2835

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4).

Dated: March 7, 2012  
Electronic Signature for Matthew H. Grady: /Matthew H. Grady/

Docket No.: L2039-700110  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Yves Behar et al.

Application No.: 12/170,939

Confirmation No.: 1986

Filed: July 10, 2008

Art Unit: 2835

For: PORTABLE COMPUTER WITH MULTIPLE  
DISPLAY CONFIGURATIONS

Examiner: A. S. Wilson

**AMENDMENT AFTER NON-FINAL ACTION UNDER 37 C.F.R. 1.111**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In response to the Office Action mailed September 8, 2011, please amend the above-identified application as follows. Changes to the Claims are shown by strike through (for deleted matter) and underlining (for added matter).

**Amendments to the Claims** are reflected in the listing of claims which begins on page 2 of this paper.

**Remarks** begin on page 12 of this paper.

### Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

#### Listing of Claims:

1. (Currently Amended) A portable computer configurable between a plurality of display modes including a closed mode, a laptop mode and an easel mode, the portable computer comprising:

a single display component including a display screen;

a base including a keyboard;

a hinge assembly at least partially housed within the base and the display component ~~and~~ configured to pivotably couple the display component to the base, wherein the hinge assembly defines a single longitudinal axis running along an interface between the display component and the base, and wherein the display component and the base are rotatable about the single longitudinal axis;

wherein, in the closed mode, the display screen is disposed substantially against the base;

wherein rotating either the single display component or the base by an operator about the single longitudinal axis up to approximately 180 degrees from the closed mode configures the portable computer into the laptop mode, wherein in the laptop mode the single display component is oriented towards the operator and the keyboard is oriented to receive input from the operator; ~~and~~

wherein rotating either the single display component or the base by the operator about the single longitudinal axis beyond approximately 180 degrees from the closed mode configures the portable computer into the easel mode; ~~and~~

wherein in the easel mode the single display component is oriented facing the operator with the keyboard oriented away from the operator.

2. (Currently Amended) The portable computer of claim 1, wherein the single display component is rotatable about the single longitudinal axis up to approximately 320 degrees from the closed mode.
  
3. (Previously Presented) The portable computer of claim 1, further comprising a display orientation module that displays content on the display screen in one of a plurality of content orientations relative to the single longitudinal axis.
  
4. (Previously Presented) The portable computer of claim 3, further comprising a mode sensor which detects a current display mode of the portable computer; and  
wherein the display orientation module displays content on the display screen in the one of the plurality of content orientations dependent on the current display mode detected by the mode sensor.
  
5. (Previously Presented) The portable computer of claim 3, wherein the display orientation module is configured to display the content in a first content orientation relative to the single longitudinal axis when the portable computer is configured into the laptop mode and in a second content orientation relative to the single longitudinal axis when the portable computer is configured into the easel mode.
  
6. (Previously Presented) The portable computer of claim 5, wherein the second content orientation is 180 degrees relative to the first orientation.
  
7. (Currently Amended) The portable computer of claim 3, wherein the plurality of display modes further comprises a flat mode in which the single display component is disposed at an angle of approximately 180 degrees, measured about the single longitudinal axis, relative to the base.
  
8. (Previously Presented) The portable computer of claim 7, wherein the plurality of content orientations comprises a first content orientation relative to the single longitudinal axis, a second

content orientation relative to the single longitudinal axis, and a third content orientation relative to the single longitudinal axis; and

wherein, in the flat mode, the content displayed on the display screen is configurable among the first, second and third content orientations responsive to a user input.

9. (Previously Presented) The portable computer of claim 8, wherein the second content orientation is 90 degrees relative to the first content orientation; and

wherein the third content orientation is 180 degrees relative to the first content orientation.

10. (Cancelled)

11. (Original) The portable computer of claim 1, further comprising:

a foot disposed along at least a portion of the base and configured to support the portable computer when in the easel mode.

12. (Previously Presented) A portable computer comprising:

a base;

a display component rotatably coupled to the base;

means for rotating the display component in a single direction relative to the base to configure the portable computer between a laptop mode and an easel mode;

a display orientation module configured to automatically orient content displayed on the display component responsive to at least a transition between the laptop mode and the easel mode, wherein the display orientation module is further configured to orient the content displayed between a first display orientation and a second display orientation, the first and second display orientations being 180 degrees relative to each other; and

means for detecting an orientation of the base relative to the display component, wherein the means for detecting is further configured to identify the transition between the laptop mode and the easel mode based on a stored threshold orientation.



13. (Currently Amended) A portable computer configurable between a plurality of modes including a laptop mode and an easel mode, the portable computer comprising:

- a single display component;
- a base including an integrated keyboard; ~~and~~
- a hinge assembly configured to rotatably couple the single display component to the base, wherein the hinge assembly is at least partially housed within the base and the single display component, and defines a ~~single~~ longitudinal axis running along an interface between the single display component and the base;
- wherein the hinge assembly is configured to permit rotation of the single display component and the base about the single longitudinal axis to configure the portable computer between the laptop mode and the easel mode;
- wherein in the easel mode the single display component is oriented facing the operator with the keyboard oriented away from the operator; and
- at least one integrated navigation hardware control configured to control features and manipulate content displayed on the portable computer, wherein at least one of the least one integrated navigation hardware control is accessible in each of the plurality of modes including when the keyboard is inaccessible or oriented away from the user.

14. (Cancelled)

15. (Currently Amended) The portable computer of claim 13, wherein the single display component comprises a display screen configured to display content and a display orientation module configured to control an orientation of the content displayed on the display screen;

- wherein the orientation of the content displayed on the display screen is configurable among a plurality of orientations relative to the longitudinal axis.

16. (Original) The portable computer of claim 15, wherein the plurality of orientations comprises a first orientation relative to the longitudinal axis and a second orientation relative to the longitudinal axis; and

wherein when display orientation module is configured to automatically display the content in the first orientation when the portable computer is configured into the laptop mode and in the second orientation when the portable computer is configured into the easel mode.

17. (Previously Presented) The portable computer of claim 16, wherein the second orientation is 180 degrees relative to the first orientation; and

wherein the plurality of orientations further comprises a third orientation relative to the longitudinal axis, the third orientation, wherein the third orientation is 90 degrees relative to the first orientation.

18. (Currently Amended) The portable computer of claim 15, further comprising a mode sensor configured to provide information representative of a degree of rotation of the single display component relative to the base; and

wherein the display orientation module is configured to automatically adjust the orientation of the content displayed on the display screen responsive to the information from the mode sensor.

19. (Currently Amended) A method of automatically orienting content in a plurality of display modes displayed on a portable computer comprising a body, the body having a single display component including a single display screen and a base including an integrated keyboard, the method comprising:

rotating the single display component of the portable computer about a longitudinal axis running along an interface between the single display component and the base of the portable computer;

detecting a degree of rotation of the single display component relative to the base;

providing a signal representative of the degree of rotation of the single display component;

comparing the degree of rotation with respect to a threshold degree of rotation;

determining a display mode based, at least in part, on the act of comparing the degree of rotation with respect to the threshold degree of rotation;

generating a visual display of the content for the single display screen;

orienting the visual display shown on the display screen of the single display component towards an operator for operation of the portable computer in each of the plurality of display modes, wherein the plurality of display modes includes a laptop mode with the integrated keyboard and display oriented towards the operation and an easel mode with the display oriented towards the operator and the keyboard oriented away from the operator; and

automatically configuring a content orientation, relative to the longitudinal axis, of the visual display on the ~~single~~ display screen of the portable computer responsive to the signal and the determined display mode, wherein the act of automatically configuring includes acts of:

displaying the visual display in a first content orientation of the content for the degree of rotation that is less than the threshold degree of rotation and the portable computer is determined to be configured in the laptop mode, and

displaying the visual display in a second content orientation of the content for the degree of rotation that is greater than the threshold degree of rotation and the portable computer is determined to be configured in the easel mode, the second content orientation being at 180 degrees relative to the first orientation.

20. (Currently Amended) The method of claim 19, wherein automatically configuring the orientation of the content includes:

displaying the visual display of the content in the first content orientation relative to the longitudinal axis responsive to the signal indicating that the degree of rotation of the single display component is less than the threshold degree of rotation of approximately 180 degrees relative to the base; and

displaying the visual display of the content in the second content orientation relative to the longitudinal axis responsive to the signal indicating that the degree of rotation of the single display component is greater than the threshold degree of rotation of approximately 180 degrees relative to the base.

21. (Currently Amended) A portable computer comprising:

a base unit comprising an integrated keyboard;

a single display unit including a single display screen configured to display content;

an orientation sensor which detects a physical orientation of the single display unit relative to the base unit; and

a display orientation module which orients the content displayed on the single display screen responsive to the physical orientation detected by the orientation sensor between at least a first content display orientation and a second content display orientation, the second content display orientation being 180 degrees relative to the first content display orientation;

wherein the display orientation module is further configured to detect a change between a laptop mode, ~~and~~ an easel mode, and a frame mode based on the detected physical orientation of the single display unit relative to the base unit, and wherein the display orientation module is further configured to:

trigger a display inversion from one of the first and second content display orientations to the other of the first and second content display orientations responsive to the orientation sensor detecting the change between the laptop mode and the easel mode,

trigger a display inversion from one of the first and second content display orientations to the other of the first and second content display orientations responsive to the orientation sensor detecting the change between the easel mode and the frame mode.

22. (Cancelled)

23. (Previously Presented) The portable computer of claim 16, wherein the second orientation is 180 degrees relative to the first orientation.

24. (Previously Presented) The portable computer of claim 21, wherein the orientation sensor includes an accelerometer.

25. (Previously Presented) The portable computer of claim 24, the orientation sensor is configured to detect an angle of the base relative to the display unit.

26. (New) The portable computer of claim 1, further comprising at least one integrated navigation hardware control, wherein at least one of the at least one integrated navigation hardware control is accessible in at least the laptop and easel modes, and wherein the integrated

navigation hardware can be operated by a user to control features and manipulate content displayed on the portable computer, including any mode wherein the keyboard is inaccessible or oriented away from the user.

27. (New) The portable computer of claim 13, wherein the plurality of modes includes a frame mode in which the single display component is oriented towards the operator, the base contacts a substantially horizontal surface, and the keyboard is directed towards the substantially horizontal surface.

28. (New) The portable computer of claim 15, wherein the plurality of modes includes a frame mode in which the single display component is oriented towards the operator, the base contacts a substantially horizontal surface, and the keyboard is directed towards the substantially horizontal surface, and wherein the plurality of orientations comprises a first orientation relative to the longitudinal axis and a second orientation relative to the longitudinal axis; and

wherein when display orientation module is configured to display the content in the first orientation when the portable computer is configured into the laptop mode and frame mode and in the second orientation when the portable computer is configured into the easel mode.

29. (New) The portable computer of claim 27, further comprising a protection module configured to prevent keyboard operation when the portable computer is configured in the frame mode.

30. (New) The method of claim 19, wherein the plurality of display modes includes a frame mode wherein in the frame mode the display component is oriented towards the operator, the base contacts a substantially horizontal surface, and the integrated keyboard is directed towards the substantially horizontal surface and the act of automatically configuring includes an act of:

displaying the visual display in the first content orientation of the content for the degree of rotation that is greater than the threshold degree of rotation and the portable computer is determined to be configured in the frame mode.

31. (New) The method of claim 19, further comprising an act of deactivating keyboard operation when the portable computer is configured in the frame mode.

32. (New) A method of managing user interaction with content displayed on a portable computer having a plurality of display modes, the portable computer comprising a body, the body having: a single display component including a display screen, a base including a keyboard, and a hinge assembly, the method comprising:

manipulating a physical configuration of the single display component relative to the base to transition the portable computer between a plurality of display modes, wherein the act of manipulating includes an act of rotating the single display component of the portable computer about a longitudinal axis running along an interface between the single display component and the base of the body of the portable computer to transition the portable computer between the plurality of display modes, including a laptop mode and an easel mode;

wherein the plurality of modes includes at least the laptop mode wherein the single display component and the keyboard are oriented towards an operator and the easel mode wherein the single display component is oriented towards an operator and the keyboard is oriented away from the operator;

determining a display mode responsive to the physical configuration of the single display component relative to the base;

configuring a content orientation, relative to the longitudinal axis, of a visual display on the display screen of the single display component responsive to the display mode, wherein configuring the content orientation includes:

displaying the visual display in a first content orientation of the content for the laptop mode, and

displaying the visual display in a second content orientation for the easel mode, the second content orientation being at 180 degrees relative to the first orientation.

33. (New) The method of claim 32, wherein the plurality of display modes includes a frame mode and the act of manipulating the physical configuration of the single display component to transition the portable computer between a plurality of display modes includes an act of

orienting the single display component towards the operator, placing the base against a substantially horizontal surface, and orienting the keyboard towards the substantially horizontal surface to transition the portable computer into the frame mode.

34. (New) The method according to claim 33, wherein the act of configuring the content orientation includes an act of displaying the visual display in the first content orientation of the content for the frame mode.

35. (New) The method according to claim 33, further comprising an act of deactivating keyboard operation when the portable computer is configured in the frame mode.

### **REMARKS**

Claims 1-9, 11-13, 15-21, and 23-25 were previously pending in this application. Claims 1, 2, 7, 13, 15, 18-19, 20, and 21 have been amended herein. Claims 26-35 have been added. As a result claims 1-9, 11-13, 15- 21, and 23-35 are pending for examination with claims 1, 12, 13, 19, 21, and 32 being independent claims. No new matter has been added.

### **Examiner Interview**

Applicant wishes to thank Examiner Wilson for the courtesies extended to Applicant's Representative during the course of the Interview conducted on March 6, 2012. Applicant's Representative and Examiner Wilson discussed the Application, the references of record, and proposed amendments to the claims. Although agreement was not reached Examiner Wilson suggested submission of the amendments and argument for further consideration. Accordingly, Applicant respectfully submits the enclosed Amendments and Remarks and requests reconsideration.

### **Rejections Under 35 U.S.C. §102**

Claims 1, 3-8-13, 15-16, 18-21, and 23 stand rejected under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 7,061,472 to Schweizer et al (hereinafter Schweizer). In response, Applicant has amended the claims to further describe Applicant's contribution to the art, and respectfully submits the following remarks in support of the patentability of the claims.

Schweizer discloses "a presentation device primarily designed for advising customers while conducting visits outside of the office." (Abstract). According to Schweizer the device has "a primary display screen (2) can be pivoted ... so that during a presentation, two people located opposite one another can each view a display screen." (Abstract). As described, "the presentation device is a conventional laptop computer with a removable keyboard and a main display screen that can be rotated out." (Col. 1, lines 54-57). The presentation device includes "another display screen ... arranged under the keyboard in the base unit of the laptop computer." (Col. 1, lines 59-61). "The keyboard can be removed as desired." (Col. 1, lines 66-67). During a presentation, the main display screen is rotated out "so the second person can view the main display screen," and "the image of the main display screen is rotated 180 degrees by a control device." (Col. 2, lines 1-5). The main display can be rotated out and the second display turned



on manually or “by a device that recognizes the turning angle coupled to the hinge.” (Col. 2, lines 23-31).

In summary, Schweizer discloses a dual display laptop configured for presenting the main display to a second viewer (e.g., a customer) while the operator interacts with the laptop using a secondary display and the detachable keyboard.

Schweizer does not anticipate claim 1, as amended. In particular, Schweizer does not teach or suggest a laptop computer having “a single display component including a display screen,” as recited in claim 1, as amended. Schweizer teaches and relies on a main display oriented towards a viewing user and an additional display oriented towards the operator of the device to permit the operator to control the presentation device. (Please see Col. 2, lines 1 – 31). Further, Schweizer does not teach or suggest “rotating either the single display component or the base by the operator about the single longitudinal axis beyond approximately 180 degrees from the closed mode configures the portable computer into the easel mode,” and also does not teach “wherein in the easel mode the single display component is oriented facing the operator with the keyboard oriented away from the operator,” as recited in claim 1, as amended. As discussed above, Schweizer is directed to a dual display laptop computer, wherein a main display is rotated and a display orientation on the main display can be adjusted for viewing by a second user opposite the computer operator. (Please see e.g., Col. 1, line 54 – Col. 2, line 31; and Abstract). The operator controls the laptop using a second display oriented towards the operator, which can be viewed by removing the detachable keyboard or by moving the second display screen out of a slot in which it is positioned. (Please see e.g., Col. 1, line 54 – Col. 2, line 31; and Abstract). As described in Schweizer, Schweizer relies on a second display for controlling the presentation device. Thus, Schweizer does not teach or suggest a laptop computer having “a single display component including a display screen,” as recited in claim 1, as amended, nor “wherein in the easel mode the single display component is oriented facing the operator and the keyboard is oriented away from the operator,” as recited in claim 1, as amended.

Accordingly withdrawal of the rejection of claim 1 is respectfully requested. Claims 2-9 and 11 depend from claim 1 and are allowable for at least the same reasons.

### Independent Claim 13

Schweizer does not anticipate claim 13, as amended. In particular, Schweizer does not teach or suggest an easel mode wherein a “single display component is oriented facing the operator with the keyboard oriented away from the operator,” nor “at least one integrated navigation hardware control configured to control features and manipulate content displayed on the portable computer accessible in each of the plurality of modes including when the keyboard is inaccessible or oriented away from the user,” as recited in claim 13 as amended.

As discussed above, Schweizer discloses and relies on dual display screens to operate the presentation device. (Please see e.g., Col. 1, line 54 – Col. 2, line 31; and Abstract). Schweizer is not concerned with managing an operator’s interaction with a single display device, rather Schweizer is directed to improving a laptop having two displays, a main display presented to a viewing user and a second display presented to an operator to control the presentation device. (Please see e.g., Col. 1, line 54 – Col. 2, line 31; and Abstract). Thus, Schweizer does not teach or suggest an easel mode with a “single display component” “oriented facing the operator with the keyboard oriented away from the operator,” as recited in claim 13, as amended. Further, Schweizer teaches a detachable keyboard that can be used to operate the presentation device in any configuration. Schweizer is not concerned with “navigation hardware control” “accessible when the keyboard is inaccessible or oriented away from the user.” Thus, Schweizer does not teach or suggest “at least one integrated navigation hardware control configured to control features and manipulate content displayed on the portable computer accessible in each of the plurality of modes including when the keyboard is inaccessible or oriented away from the user,” as recited in claim 13, as amended.

Accordingly, withdrawal of the rejection of claim 13 is respectfully requested. Claims 15-18, 23, and 27-28 depend from claim 13 and are allowable for at least the same reasons.

### Independent Claim 19

Schweizer does not anticipate claim 19, as amended. In particular Schweizer does not teach or suggest “orienting the visual display shown on the display screen of the single display component towards an operator for operation of the portable computer in each of the plurality of display modes, wherein the plurality of display modes includes a laptop mode with the integrated keyboard and display oriented towards the operation and an easel mode with the

display oriented towards the operator and the keyboard oriented away from the operator,” as recited in claim 19, as amended. As discussed Schweizer teaches a dual display presentation device. The operator in Schweizer switches between the dual display screens in order to operate the presentation device. (Please see e.g., Col. 1, line 54 – Col. 2, line 31; and Abstract). Thus, Schweizer does not teach or suggest “orienting the visual display shown on the display screen of the single display component towards an operator for operation of the portable computer in each of the plurality of display modes, wherein the plurality of display modes includes a laptop mode and an easel mode,” as recited in claim 19, as amended.

Accordingly withdrawal of the rejection of claim 19 is respectfully requested. Claims 20 and 30-31 depend from claim 19 and are allowable for at least the same reasons.

#### Independent Claim 21

Schweizer does not anticipate claim 21, as amended. In particular Schweizer does not teach or suggest a portable computer having a display orientation module “wherein the display orientation module is further configured to detect a change between a laptop mode, an easel mode, and a frame mode based on the detected physical orientation of the single display unit relative to the base,” as recited in claim 21, as amended. Schweizer does not disclose a frame mode for the presentation device. Thus, Schweizer does not teach or suggest “a portable computer having a display orientation module “wherein the display orientation module is further configured to detect a change between a laptop mode, an easel mode, and a frame mode,” as recited in claim 21, as amended.

Accordingly withdrawal of the rejection of claim 21 is respectfully requested. Claims 24-25 depend from claim 21 and are allowable for at least the same reasons.

#### New Independent Claim 32

As discussed above with respect to the independent claims, Schweizer does not teach or suggest “rotating the single display component of the portable computer about a longitudinal axis running along an interface between the single display component and the base of the body of the portable computer to transition the portable computer to transition the portable computer between the plurality of display modes, including a laptop mode and an easel mode,” as recited in claim 32. Schweizer teaches and relies on dual displays to operate the disclosed presentation

device. Further Schweizer does not teach the recited easel mode, as amended. Rather, Schweizer teaches rotating a main display about an axis for viewing by a second user, while a first user continues to operate the device using a second display and the keyboard.

Accordingly, claim 32 is believed to be allowable. Claims 33-35 depend from claim 32 and are allowable for at least the same reasons.

#### Rejections Under 35 U.S.C. §103

Claims 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Schweizer taken alone. Applicant respectfully traverses the rejection.

Claim 2 depends from claim 1. As discussed above, Schweizer does not teach or suggest “a laptop computer having “a single display component including a display screen,” as recited in claim 1, as amended. Schweizer teaches and relies a main display oriented towards a viewing user and an additional display oriented towards the operator of the device to permit the operator to control the presentation device. (Please see Col. 2, lines 1 – 31). Thus, Schweizer taken alone does not teach or suggest claim 2.

Further, it would be improper to modify Schweizer to eliminate the dual display screens disclosed. It would not be obvious to a person of ordinary skill to modify Schweizer to eliminate one of the dual display screens, because such a modification would render Schweizer unsatisfactory for its intended purpose of providing dual displays to opposed users during a presentation. (Please see Col. 1, line 49 – Col 2, line 31). A modification that renders a reference unsatisfactory for its intended purpose cannot render a claim *prima facie* obvious as a matter of law. (Please see M.P.E.P. §2143.01 Sec. V).

In addition, Schweizer’s principle of operation includes the use of dual display screens to present computer content and operate the disclose device. (Please see Col. 1, line 49 – Col 2, line 31). A modification to Schweizer to eliminate the use of the dual display screens would also change the principle of operation disclosed, which is improper. A modification that changes the principle of operation of a reference cannot render a claim *prima facie* obvious as a matter of law. (Please see M.P.E.P. §2143.01 Sec. VI).

As Schweizer does not teach or suggest all the elements of independent claim 1 from which claim 2 depends, claim 2 is allowable for at least the same reasons. Further, it would be

improper to modify Schweizer to teach or suggest claim 1, as amended. Accordingly, withdrawal of the rejection is respectfully requested.

Claims 9 and 17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Schweizer in view of U.S. Patent Application No. 2006/0264243 to Aarras et al. Applicant respectfully traverses the rejection.

Claims 9 and 17 depend from independent claims 1 and 13 respectively. As discussed above, Schweizer does not teach or suggest all the elements of claims 1 and 13, and Aarras does not cure this deficiency.

Aarras describes a device having two sections that are connected by a dual axis hinge, section 16, in Fig. 1-3. The dual axis hinge enables the device to present displays on the first and second sections according to a book metaphor. (Paras. 0010, 0038, and 0047-49). According to Aarras using the dual axis hinge permits “[t]he first and second sections ... to be repeatedly flipped forwards or backwards relative to each other similar to a top wirebound steno book or memo book.” (Para. 0037). Pursuant to the disclosed book metaphor, the orientation of the content displayed on the Aarras device *does not* change, rather a first image is display on the first section, and in response to a user flipping the first section completely around, the second section is revealed which displays another image. (Please see 0038, 0043, 0047-0049).

Neither Schweizer nor Aarras taken alone or together teach or suggest an “easel mode” wherein “the single display component is oriented facing the operator with the keyboard oriented away from the operator,” and “rotating either the single display component or the base by the operator about the single longitudinal axis beyond approximately 180 degrees from the closed mode configures the portable computer into the easel mode,” as recited in claim 1, as amended. Claim 13, as amended, also recites an “easel mode” and “rotation of the display component and the base about a longitudinal axis to configure the portable computer between the laptop mode and the easel mode.”

Schweizer and Aarras considered alone or together do not teach or suggest the claimed “easel mode” nor the transition between a laptop mode and easel mode base on rotation about a longitudinal axis. Schweizer teaches and relies on dual displays to accomplish its disclosed objects. (Please see Col. 1, line 49 – Col 2, line 31). Aarras only teaches a display orientation

change in response to operation of a simple hinge, wherein two sections of one side of the Aarras device are rotated perpendicular to the claimed rotation. (Please see Aarras, para. 0039).

Additionally, any modification of Schweizer to teach or suggest claims 1 or 13 as amended, would render Schweizer unsatisfactory for its intended purpose or change the principle of operation disclosed in Schweizer which would be improper. (Please see M.P.E.P. §2143.01 Sec. V-VI).

Accordingly, withdrawal of the rejection of claims 9 and 17 is respectfully requested.

Claim 11 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Schweizer in view of U.S. Patent No. 6,295,038 to Rebeske (hereinafter Rebeske). Applicant respectfully traverses the rejection.

Claim 11 depends from independent claim 1. As discussed above, Schweizer does not disclose or suggest several limitations recited in claim 1, as amended. Applicant does not concede that the combination of Schweizer and Rebeske proposed in the Office Action is proper, and reserves the right to traverse the combination in the future. However, even considered in combination as proposed in the Office Action, Rebeske fails to cure the deficiencies of Schweizer.

Accordingly, withdrawal of the rejection of claim 11 is respectfully requested

Claims 24 and 25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Schweizer in view of U.S. Patent No. 6,882,335 to Saarinen et al (hereinafter Saarinen). Applicant respectfully traverses the rejection.

Claims 24 and 25 depend from independent claim 21. As discussed above, Schweizer does not disclose or suggest several limitations recited in claim 21, as amended. Applicant does not concede that the combination of Schweizer and Saarinen proposed in the Office Action is proper, and reserves the right to traverse the combination in the future. However, even considered in combination as proposed in the Office Action, Saarinen fails to cure the deficiencies of Schweizer.

Accordingly, withdrawal of the rejection of claims 24 and 25 is respectfully requested

Allowed Subject Matter

Claim 12 stands allowed.

**CONCLUSION**

In view of the foregoing amendments and remarks, reconsideration is respectfully requested. This application should now be in condition for allowance; a notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an accompanying payment, please charge any deficiency to Deposit Account No. 50/2762.

Dated: March 7, 2012

Respectfully submitted,

Electronic signature: /Matthew H. Grady/  
Matthew H. Grady

Registration No.: 52,957

Edward J. Russavage

Registration No.: 43,069

LANDO & ANASTASI LLP

Riverfront Office Park

One Main Street

Suite 1100

Cambridge, Massachusetts 02142

(617) 395-7000

Attorneys for Applicant

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939
	Filing Date		2008-07-10
	First Named Inventor	Yves Behar	
	Art Unit	2835	
	Examiner Name	A. S. Wilson	
	Attorney Docket Number	L2039-700110	

U.S.PATENTS							Remove
Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	
	1	6295038		2001-09-25	Rebeske		
	2	7698407		2010-04-13	Mattox, Jr. et al.		
	3	5436954		1995-07-25	Nishiyama et al.		
	4	7035665		2006-04-25	Kido et al.		
	5	7869834		2011-01-11	Seol et al.		
If you wish to add additional U.S. Patent citation information please click the Add button.							Add
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Examiner Initial*	Cite No	Publication Number	Kind Code <sup>1</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	
	1	20050221865		2005-10-06	Nishiyama et al.		



<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939	
	Filing Date		2008-07-10	
	First Named Inventor	Yves Behar		
	Art Unit		2835	
	Examiner Name	A. S. Wilson		
	Attorney Docket Number		L2039-700110	

	2	20080024465		2008-01-31	Hawkins et al.	
	3	20060238439		2006-10-26	Fuller et al.	
	4	20030107603		2003-06-12	Clapper	
	5	20050083642		2005-04-21	Senpuku et al.	

If you wish to add additional U.S. Published Application citation information please click the Add button. **Add**

**FOREIGN PATENT DOCUMENTS** Remove

Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup> ;	Kind Code <sup>4</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
	1							<input type="checkbox"/>

If you wish to add additional Foreign Patent Document citation information please click the Add button **Add**

**NON-PATENT LITERATURE DOCUMENTS** Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>5</sup>
	1	Miller, M., "Creating a Digital Home Entertainment System with Windows Media Center" , Apr 2006, Que.	<input type="checkbox"/>

If you wish to add additional non-patent literature document citation information please click the Add button **Add**

**EXAMINER SIGNATURE**

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number	12170939
	Filing Date	2008-07-10
	First Named Inventor	Yves Behar
	Art Unit	2835
	Examiner Name	A. S. Wilson
	Attorney Docket Number	L2039-700110

<sup>1</sup> See Kind Codes of USPTO Patent Documents at [www.USPTO.GOV](http://www.USPTO.GOV) or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939
	Filing Date		2008-07-10
	First Named Inventor	Yves Behar	
	Art Unit		2835
	Examiner Name	A. S. Wilson	
	Attorney Docket Number		L2039-700110

**CERTIFICATION STATEMENT**

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

**OR**

That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

**SIGNATURE**

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Matthew H. Grady/	Date (YYYY-MM-DD)	2012-03-07
Name/Print	Matthew H. Grady	Registration Number	52957

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	12170939			
<b>Filing Date:</b>	10-Jul-2008			
<b>Title of Invention:</b>	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS			
<b>First Named Inventor/Applicant Name:</b>	Yves Behar			
<b>Filer:</b>	Matthew H. Grady/Matthew Grady			
<b>Attorney Docket Number:</b>	L2039-700110			
Filed as Large Entity				
<b>Utility under 35 USC 111(a) Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
Claims in excess of 20	1202	9	60	540
Independent claims in excess of 3	1201	1	250	250
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Extension-of-Time:</b>				
Extension - 3 months with \$0 paid	1253	1	1270	1270
<b>Miscellaneous:</b>				
Submission- Information Disclosure Stmt	1806	1	180	180
<b>Total in USD (\$)</b>				<b>2240</b>

<b>Electronic Acknowledgement Receipt</b>	
<b>EFS ID:</b>	12248285
<b>Application Number:</b>	12170939
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	1986
<b>Title of Invention:</b>	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS
<b>First Named Inventor/Applicant Name:</b>	Yves Behar
<b>Customer Number:</b>	37462
<b>Filer:</b>	Matthew H. Grady
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	L2039-700110
<b>Receipt Date:</b>	07-MAR-2012
<b>Filing Date:</b>	10-JUL-2008
<b>Time Stamp:</b>	16:37:28
<b>Application Type:</b>	Utility under 35 USC 111(a)

**Payment information:**

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$2240
RAM confirmation Number	3562
Deposit Account	502762
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

- Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)
- Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)  
 Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)  
 Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

**File Listing:**

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		L2039-700110_- _Amendment_1.PDF	107961 11cd473fec039bb7700356882687acd7a9d f7ebf	yes	19
<b>Multipart Description/PDF files in .zip description</b>					
	<b>Document Description</b>		<b>Start</b>		<b>End</b>
	Amendment/Req. Reconsideration-After Non-Final Reject		1		1
	Claims		2		11
	Applicant Arguments/Remarks Made in an Amendment		12		19
<b>Warnings:</b>					
<b>Information:</b>					
2	Information Disclosure Statement (IDS) Form (SB08)	L2039-700110_- _Information_Disclosure_State ment_Fillable_PDF_2.pdf	605611 dcef870accd6b1c364d274214f97652441b b4b2a	no	4
<b>Warnings:</b>					
<b>Information:</b>					
3	Non Patent Literature	L2039-700431_- _Creating_a_Digital_Home_En tainment_System_3.pdf	2168268 3ac14bc9affa4d88bef2e75025ea914c9c718 d9d	no	28
<b>Warnings:</b>					
<b>Information:</b>					
4	Fee Worksheet (SB06)	fee-info.pdf	35674 91144c08b44c54466e53ca187a5b8504fd3 5ab3d	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			2917514		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875					Application or Docket Number <b>12/170,939</b>		Filing Date <b>07/10/2008</b>		<input type="checkbox"/> To be Mailed		
<b>APPLICATION AS FILED – PART I</b>					SMALL ENTITY <input type="checkbox"/>		OR		OTHER THAN SMALL ENTITY		
(Column 1)		(Column 2)									
FOR	NUMBER FILED	NUMBER EXTRA			RATE (\$)	FEE (\$)	OR		RATE (\$)	FEE (\$)	
<input type="checkbox"/> BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>	N/A	N/A			N/A				N/A		
<input type="checkbox"/> SEARCH FEE <small>(37 CFR 1.16(k), (l), or (m))</small>	N/A	N/A			N/A				N/A		
<input type="checkbox"/> EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>	N/A	N/A			N/A				N/A		
TOTAL CLAIMS <small>(37 CFR 1.16(i))</small>	minus 20 =	*			X \$ =				X \$ =		
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>	minus 3 =	*			X \$ =				X \$ =		
<input type="checkbox"/> APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).										
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>											
* If the difference in column 1 is less than zero, enter "0" in column 2.					TOTAL				TOTAL		
<b>APPLICATION AS AMENDED – PART II</b>					SMALL ENTITY		OR		OTHER THAN SMALL ENTITY		
(Column 1)		(Column 2)		(Column 3)							
<b>AMENDMENT</b>	<b>03/07/2012</b>	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	* 32	Minus	** 24	= 8	X \$ =				X \$60=	480
	Independent (37 CFR 1.16(h))	* 6	Minus	***5	= 1	X \$ =				X \$250=	250
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))										
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
						TOTAL ADD'L FEE				TOTAL ADD'L FEE	<b>730</b>
(Column 1)		(Column 2)		(Column 3)							
<b>AMENDMENT</b>		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$ =				X \$ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =				X \$ =	
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))										
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
						TOTAL ADD'L FEE				TOTAL ADD'L 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.											
					Legal Instrument Examiner: /BRENDA WEBB/						

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/170,939	07/10/2008	Yves Behar	L2039-700110	1986

37462 7590 09/08/2011  
LANDO & ANASTASI, LLP  
ONE MAIN STREET, SUITE 1100  
CAMBRIDGE, MA 02142

EXAMINER

WILSON, ADRIAN S

ART UNIT	PAPER NUMBER
2835	

NOTIFICATION DATE	DELIVERY MODE
09/08/2011	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@LALaw.com  
gengelson@LALaw.com

<b>Office Action Summary</b>	<b>Application No.</b> 12/170,939	<b>Applicant(s)</b> BEHAR ET AL.	
	<b>Examiner</b> ADRIAN S. WILSON	<b>Art Unit</b> 2835	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 29 April 2011.
- 2a)  This action is **FINAL**.
- 2b)  This action is non-final.
- 3)  An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 5)  Claim(s) 1-9, 11-13, 15-21 and 23-25 is/are pending in the application.
  - 5a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 6)  Claim(s) 12 is/are allowed.
- 7)  Claim(s) 1-9, 11, 13, 15-21 and 23-25 is/are rejected.
- 8)  Claim(s) \_\_\_\_\_ is/are objected to.
- 9)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 10)  The specification is objected to by the Examiner.
- 11)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 13)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some \*    c)  None of:
    - 1.  Certified copies of the priority documents have been received.
    - 2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    - 3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 4)  Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 5)  Notice of Informal Patent Application
- 6)  Other: \_\_\_\_\_.

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application on 04/29/2011 after final rejection on 01/31/2011. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/29/2011 has been entered.
2. Claims 1-9, 11-13, 15-21 and 23-25 are now pending in this application. Claims 1-9, 13, 15 and 19-21, as currently amended, are presented for examination. Claims 11-12, 16-18 and 23-25, as previously presented, are presented for examination. Claims 10, 14 and 22 are canceled.

***Claim Interpretation, 35 USC § 112, 6<sup>th</sup> Paragraph***

3. The following is a quotation of the sixth paragraph of 35 U.S.C. 112:  

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.
4. Per MPEP 2181, a claim limitation will be presumed to invoke 35 U.S.C. 112, sixth paragraph, if it meets the following 3-prong analysis:
  - (A) the claim limitations must use the phrase "means for " or "step for; "
  - (B) the "means for " or "step for " must be modified by functional language;and

(C) the phrase “means for ” or “step for ” must not be modified by sufficient structure, material, or acts for achieving the specified function.

5. Applicant has stated in Applicant’s Arguments, pp. 9-10, submitted 11/03/2010, that applicant intends to invoke §112, 6<sup>th</sup> paragraph for Claim 12. In re Claim 12, the limitation “means for rotating the display component in a single direction relative to the base to configure the portable computer between a laptop mode and an easel mode” meets the three-prong test per MPEP 2181 and thereby invokes 35 USC § 112, 6<sup>th</sup> Paragraph. For the “means for rotating” limitation, the incorporated limitations from applicant's specification are applicant's hinge assembly 138 and all associated parts (housing 142, shaft 154, springs 156, member 158, bracket 140), as disclosed in paragraphs 0067-0068 and Figures 7a-10.

6. In re Claim 12, the limitation “means for detecting an orientation of the base relative to the display component” meets the three-prong test per MPEP 2181 and thereby invokes 35 USC § 112, 6<sup>th</sup> Paragraph. For the “means for detecting” limitation, the incorporated limitations from applicant's specification are applicant's sensor which is not shown in the drawings but is described in paragraphs 0011, 0015, 0059-0061 and 0063.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 3-8, 13, 15-16, 18-21 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Schweizer et al. (US Patent 7,061,472).

9. In re Claim 1, Schweizer discloses a portable computer configurable between a plurality of display modes including a closed mode, a laptop mode and an easel mode, the portable computer comprising: a display component 2 including a display screen; a base 4; a hinge assembly 3 at least partially housed within the base 4 and the display component 2 and configured to pivotally couple the display 2 to the base 4, wherein the hinge assembly 3 defines a single axis of rotation along an interface between the display 2 and the base 4, and wherein the display 2 and the base 4 are rotatable about a single longitudinal axis; wherein, in the closed mode, the display 2 is disposed substantially against the base 4 (as shown in Figure 3); wherein rotating the display or base about the axis up to approximately 180 degrees from the closed mode configures the portable computer into the laptop mode (as shown in Figure 1); and wherein rotating the display 2 or base 4 about the axis beyond 180 degrees from the closed mode configures the portable computer into the easel mode (See Figure 4).

10. In re Claim 13, Schweizer discloses a portable computer configurable between a laptop mode and an easel mode, the portable computer comprising: a display component 2; a base 4; and a hinge assembly 3 configured to rotatably couple the base 4 and the display 2, wherein the hinge assembly 3 is at least partially housed within the base 4 and the display component 2, and defines a single longitudinal axis running along an interface between the display component 2 and the base 4; wherein the hinge assembly 3 is configured to permit the rotation of the display component 2 and the base

4 about the axis to configure the portable computer between a laptop mode (See Figure 1) and an easel mode (See Figure 4).

11. In re Claim 19, Schweizer discloses a method of automatically orienting content displayed on a portable computer comprising a display component 2 including a display screen and a base 4 including an integrated keyboard 1, the method comprising: rotating a display component 2 of the portable computer about a longitudinal axis running along an interface between the display component 2 and a base 4 of the portable computer; detecting a degree of rotation of the display 2 relative the base 4 (i.e. via a sensor); providing a signal representative of the degree of rotation of the display component 2 (i.e. either a first image when the computer is in the laptop mode as shown in Figure 1, or an inverted image when the computer is in the easel mode as shown in Figure 4); comparing the degree of rotation with respect to a threshold degree of rotation (i.e. 180 degrees); generating a visual display of the content for the display screen; and automatically configuring a content orientation, relative to the axis, of the display on the display screen of the portable computer responsive to the signal (Id. at col. 2 ll. 23-31, disclosing that a sensor may be located in the hinge 3 for detecting a rotation of the display relative the base of equal or greater than 180 degrees and at that point altering the image of the display screen); wherein the act of automatically configuring includes the acts of: displaying the visual display in a first content orientation based on the display 2 being rotated less than the threshold degree of rotation (i.e. less than 180 degrees the image is orientated so that a user in front of the screen can see it right-side-up); and displaying the visual display in a second orientation

(i.e. inverted from the first orientation so that a person sitting on the opposite side from the keyboard as shown in Figure 2 can see the image right-side-up), the second content orientation being 180 degrees relative the first orientation. Id.

12. In re Claim 21, Schweizer discloses a portable computer comprising: a base unit 4 comprising an integrated keyboard 1; a display unit 2 including a single display screen configured to display content; an orientation sensor (Schweizer, col. 2 ll. 23-31) which detects a physical orientation of the display unit 2 relative to the base unit 4; and a display orientation module (Id. at col. 2 ll. 1-5, "a control device") which orients the content displayed on the single display screen 2 responsive to the physical orientation detected by the orientation sensor between at least a first content display orientation and a second content display orientation (i.e. a first image and the inversion of that image); wherein the display orientation module is further configured to detect a change between a laptop mode (as shown in Figure 1) and an easel mode (as shown in Figure 4) based on the physical orientation of the display unit 2 relative the base unit 4, and wherein the display orientation module is further configured to trigger a display inversion (Id. at col. 2 ll. 23-31) responsive to the orientation sensor detecting a change between the laptop mode and the easel mode (i.e. when the display rotates beyond 180 degrees from a closed position).

13. In re Claim 3, Schweizer discloses a display orientation module (Schweizer, col. 2 ll. 1-5, "a control device") that displays content on the display screen 2 in one of a plurality of content orientations relative to the axis (i.e. in a first orientation when in the laptop mode and a second orientation in the easel mode).



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14. In re Claim 4, Schweizer discloses a mode sensor (Schweizer, col. 2 ll. 23-31) which detects a current display mode of the computer; and wherein the display orientation module displays content on the display screen 2 based upon the current display mode detected by the sensor (i.e. laptop mode or easel mode).

15. In re Claim 5, Schweizer discloses wherein the display orientation module is configured to display a first content orientation when the portable computer is in the laptop mode and a second content orientation when the computer is in the easel mode. Schweizer, col. 2 ll. 23-31.

16. In re Claim 6, Schweizer discloses wherein the second content orientation is 180 degrees (i.e. inverted) relative the first content orientation. Id.

17. In re Claim 7, Schweizer discloses wherein the portable computer is further capable of a "flat mode" wherein the display 2 and base 4 are rotated 180 degrees relative to each other.

18. In re Claim 8, Schweizer discloses wherein a plurality of content orientations may be displayed on the display screen 2 and these orientations may be controlled by a user. Schweizer, col. 2 ll. 6-13 (i.e. the user is constantly changing the display orientation via inputs from the keyboard). Schweizer also clearly discloses a first orientation and a third orientation that a user may control, the first and third orientations being 180 degrees relative to each other so that a user may view the third orientation right-side-up when the portable computer is in the easel mode. Schweizer, col. 2 ll. 23-31.

19. In re Claim 15, Schweizer discloses wherein the display component 2 comprises a display screen configured to display content and a display orientation module (Schweizer, col. 2 ll. 1-5, "a control device") configured to control an orientation of the content displayed; wherein the orientation of the content displayed is configurable among a plurality of orientations relative to the longitudinal axis. Schweizer, col. 2 ll. 6-13 (i.e. the user is constantly changing the display orientation via inputs from the keyboard).

20. In re Claim 16, Schweizer discloses a first orientation (Figure 1) and a second orientation (Figure 2), wherein the module is configured to automatically (Id. at col. 2 ll. 23-31) display the content in the first orientation when the computer is in the laptop mode and the second orientation when the computer is in the easel mode.

21. In re Claim 18, Schweizer discloses a mode sensor (id.) that automatically configures the content on the display based upon the location of the display 2 relative the base 4.

22. In re Claim 20, Schweizer discloses wherein the sensor (id.) detects whether the display 2 has been rotated beyond 180 degrees relative the base 4, and displays the first content when the display 2 is less than 180 degrees of rotation and displays the second content when the display 2 is beyond 180 degrees of rotation.

23. In re Claim 23, Schweizer discloses wherein the second orientation is 180 degrees relative the first orientation.

***Claim Rejections - 35 USC § 103***

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

25. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schweizer et al. (US Patent 7,061,472) taken alone.

26. In re Claim 2, Schweizer discloses wherein the display component 2 is rotatable about the axis to "at least" 220 degrees (See Figure 2, col. 1 ll. 59-64) but does not explicitly disclose having the display rotate up to approximately 320 degrees. However, it would have been obvious to one having ordinary skill in the art of portable electronics at the time the invention was made to make the angle of rotation up to 320 degrees, since it has been held that discovering an optimum value (i.e. 320 degrees) of a result effective variable (i.e. any angle greater than 220 degrees as disclosed in Schweizer) involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

27. Claims 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schweizer et al. (US Patent 7,061,472) in view of Aarras (US Publication 2006/0264243).

28. In re Claims 9 and 17, Schweizer discloses wherein a plurality of content orientations may be displayed on the display screen 2 and these orientations may be controlled by a user. Schweizer, col. 2 ll. 6-13 (i.e. the user is constantly changing the

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display orientation via inputs from the keyboard). Schweizer also clearly discloses a first orientation and a third orientation that a user may control, the first and third orientations being 180 degrees relative to each other so that a user may view the third orientation right-side-up when the portable computer is in the easel mode. Schweizer, col. 2 ll. 23-31. Schweizer does not explicitly disclose a second orientation that is 90 degrees relative a first orientation (i.e. a second orientation that allows a user to view an image right-side-up from either the left or right of the portable computer as shown in Schweizer Figure 1. However, Aarras discloses a portable computer (See Aarras, para 0033) that is configurable between a plurality of display modes including a closed mode (Id. at Figure 1 or 3), a laptop mode (Id. at Figure 2) and an easel mode (Id. at Figure 1 or 3), the portable computer comprising: a display component 12 including a display screen 30; a base 14; a hinge assembly 16 at least partially housed within the base 14 and configured to pivotally couple the display component 12 to the base 14; wherein a second content orientation (See Figure 33) may be obtained that is 90 degrees relative to a first content orientation (as shown in Figures 7-10). It would have been obvious to a person having ordinary skill in the art of portable electronics at the time of the invention to have incorporated a second content orientation as disclosed in Aarras with the portable computer as disclosed by Schweizer, since Aarras also teaches and suggests, like Schweizer, that the content of a display can be automatically altered based upon the relative positions of a display component relative to a base (i.e. via orientation sensor 46). As noted in Aarras, the benefits of having a second content orientation that is 90 degrees relative a first content orientation are that a user can more

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easily view the content of multiple displays (another feature common in Schweizer) side-by-side to compare the images. It is also advantageous if a user should be standing to the left or right of the portable computer as shown in Figure 1 of Schweizer so as to be able to view the image right-side-up.

29. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schweizer et al. (US Patent 7,061,472) in view of Rebeske (US Patent 6,295,038).

30. In re Claim 11, Schweizer discloses all the limitations of Claim 1 above, but does not explicitly disclose a foot to stabilize the computer when in the easel mode.

However, Rebeske discloses a computer with a display component 34 and a base 35 that is configurable in an easel mode (Rebeske, Figure 1) and is stabilized with a foot 42 that is disposed along a portion of the base 35. It would have been obvious to one having ordinary skill in the art of portable electronics at the time the invention was made to provide a stabilizing foot as taught by Rebeske, since Schweizer does suggest that the computer can be placed on a flat surface (See Figure 4). Providing a stabilizing foot as disclosed in Rebeske would ensure that the portable computer did not tip over when in the easel mode.

31. Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schweizer et al. (US Patent 7,061,472) in view of Saarinen (US Patent 6,882,335).

32. In re Claim 24, Schweizer discloses an orientation sensor for the portable computer to detect the level of rotation between a display 2 and a base 4, but does not explicitly disclose the use of an accelerometer. However, Saarinen discloses the use of an accelerometer 54 as an orientation sensor for detecting the orientation of a display

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relative a base. It would have been obvious to one having ordinary skill in the art of portable electronics at the time the invention was made to have combined the use of an accelerometer as disclosed in Saarinen with the portable computer and sensor as disclosed by Schweizer. All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. See *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_\_, 82 USPQ2d 1385 (2007). The use of an accelerometer will ensure that the correct signal is sent to the display screen so a user can see the image on the screen in the right direction.

33. In re Claim 25, Schweizer discloses a sensor that detects an angle of the base 4relative to the display 2. Schweizer, col. 2 ll. 23-31.

#### ***Response to Arguments***

34. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection above.

#### ***Allowable Subject Matter***

35. Claim 12 is allowed.

36. The following is a statement of reasons for the indication of allowable subject matter. The specific limitations of "means for rotating the display component in a single direction relative to the base to configure the portable computer between a laptop mode and an easel mode" in Claim 12 is not anticipated or made obvious by the prior art of

record in the examiner's opinion. Note that this "means for" clause invokes §112, sixth paragraph. See, supra, pp. 1-2.

37. For example, Schweizer et al. (US Patent 7,061,472) discloses a portable computer configurable between a plurality of display modes including a closed mode, a laptop mode and an easel mode, the portable computer comprising: a display component 2 including a display screen; a base 4; a hinge assembly 3 at least partially housed within the base 4 and the display component 2 and configured to pivotally couple the display 2 to the base 4, wherein the hinge assembly 3 defines a single axis of rotation along an interface between the display 2 and the base 4, and wherein the display 2 and the base 4 are rotatable about a single longitudinal axis; wherein, in the closed mode, the display 2 is disposed substantially against the base 4 (as shown in Figure 3); wherein rotating the display or base about the axis up to approximately 180 degrees from the closed mode configures the portable computer into the laptop mode (as shown in Figure 1); and wherein rotating the display 2 or base 4 about the axis beyond 180 degrees from the closed mode configures the portable computer into the easel mode (See Figure 4). However, Schweizer does not disclose a hinge assembly with a shaft, springs, member and bracket like that disclosed in applicant's specification paragraphs 0067-0068 and Figures 7a-10.

38. Aarras (US Publication 2006/0264243) discloses a portable computer (See id. at para 0033) comprising: a base 14; a display component 12 rotatably coupled to the base 14; and a hinge assembly 16 rotating the component 12 in a single direction relative to the base 14 to configure the computer between a laptop mode (Figure 2) and

an easel mode (Figure 3). See also, *id.* at para 0039 (disclosing a simpler hinge type that has a single axis of rotation). Aarras also discloses a display orientation module (i.e. controller 24) configured to automatically orient content displayed on the display component 12 responsive to at least a transition (i.e. movement between modes as shown in Figures 1-3) between a laptop mode (Figure 2) and an easel mode (Figure 1 or Figure 3), wherein the module 24 is configured to orient the content displayed between a first display orientation and a second display orientation, the first and second display orientations being 180 degrees relative to each other (See Aarras, paras 0038, 0048, 0049); and a means for detecting (i.e. sensor 46) an orientation of the base 14 relative the display component 12, wherein the sensor 46 is further configured to identify the transition between the laptop mode and the easel mode base on a stored threshold orientation (i.e. it is inherent that there is a threshold point where the sensor will detect rotation and switch between one image signal and another image signal). "The sensor 46 is coupled to the controller 24. The controller 24 is adapted to change an image displayed on at least one of the displays 30, 32 based, at least partially, upon a signal from the sensor 46 [within the hinge 16] that the [display component and base] 12, 14 have been moved relative to each other, such as moved from a first folded configuration to second folded configuration, and vice versa. ... [T]he sensor 46 can also signal if that movement is a forward flipping movement ... or a reverse flipping movement." *Id.* at para 0038. Aarras also discloses that there can be displays on both sides of a component/base. *Id.* at paras 0048-0049. And further discloses that an image can be configured based on the position of the display (i.e. what mode the device is in) to be



viewed from a first orientation or from a second orientation 180 degrees relative the first orientation. Id. at para 0049 ("A physical embodiment can comprise sections able to turn completely around; reminiscent to a paper note book ... ."). **However**, Aarras does not disclose a hinge assembly with a shaft, springs, member and bracket like that disclosed in applicant's specification paragraphs 0067-0068 and Figures 7a-10.

### ***Conclusion***

39. The Applicant should note that the Examiner has discovered prior art since the mailing of Examiner's first Office Action that is considered pertinent to applicant's disclosure. The references cited on the PTO 892 Form attached disclose a device that is similar to applicant's claimed invention.

40. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADRIAN S. WILSON whose telephone number is (571)270-3907. The examiner can normally be reached on Mon.-Thu. 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jinhee Lee can be reached on (571) 272-1977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ADRIAN S WILSON/  
Examiner, Art Unit 2835

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<b>Notice of References Cited</b>	Application/Control No. 12/170,939	Applicant(s)/Patent Under Reexamination BEHAR ET AL.	
	Examiner ADRIAN S. WILSON	Art Unit 2835	Page 1 of 1

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*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A US-5,926,364 A	07-1999	Karidis, John P.	361/679.27
*	B US-6,144,358 A	11-2000	Narayanaswamy et al.	345/102
*	C US-6,341,061 B1	01-2002	Eisbach et al.	361/679.46
*	D US-6,437,974 B1	08-2002	Liu, Fusheng	361/679.27
*	E US-6,492,974 B1	12-2002	Nobuchi et al.	345/156
*	F US-6,882,335 B2	04-2005	Saarinen, Pertti	345/156
	G US-			
	H US-			
	I US-			
	J US-			
	K US-			
	L US-			
	M US-			

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*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N				
	O				
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	S				
	T				

**NON-PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)				
	U				
	V				
	W				
	X				

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

## EAST Search History

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	78	("4965559"   "5049862"   "5467102"   "5584054"   "5646649"   "5847698"   "5856819"   "5914706"   "5949643"   "5995085").PN. OR ("6144358").URFN.	US-PGPUB; USPAT; USOCR	OR	ON	2011/08/29 20:06
L2	58350	accelerometer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:52
L3	92	(US-20090300511-\$ or US-20080042987-\$ or US-20070182663-\$ or US-20070138806-\$ or US-20050257400-\$ or US-20050210399-\$ or US-20090303676-\$ or US-20090244832-\$ or US-20100085382-\$ or US-20100085274-\$ or US-20100079355-\$ or US-20100066643-\$ or US-20100064536-\$ or US-20100064244-\$ or US-20100060664-\$ or US-20090315867-\$ or US-20090295975-\$ or US-20090275366-\$ or US-20020021258-\$ or US-20020005818-\$ or US-20090115802-\$ or US-20090016003-\$ or US-20080284738-\$ or US-20060268500-\$ or US-20060264243-\$ or US-20090322790-\$).did. or (US-20090244012-\$ or US-20050282596-\$ or US-20050128695-\$ or US-20050063145-\$ or US-20080062625-\$ or US-20060126284-\$ or US-20050146845-\$ or US-20100039064-\$ or US-20100039764-\$ or US-20110061277-\$ or US-20040001049-\$ or US-20020010707-\$ or US-20070247446-\$).did. or (US-7250207-\$ or US-7239508-\$ or US-7072179-\$ or US-7061472-\$ or US-6963485-\$ or US-6944012-\$ or US-6829140-\$ or US-6788527-\$ or US-6771494-\$ or US-6697055-\$ or US-6661426-\$ or US-6659516-\$ or US-6628267-\$ or US-6510049-\$ or US-6377444-\$ or US-6343006-\$ or US-6323846-\$ or US-6275376-\$ or US-6266236-\$ or US-6262885-\$ or US-6223393-\$ or US-6005767-\$ or US-5987704-\$ or US-D416003-\$ or US-5949643-\$ or US-5841631-\$).did. or (US-5825352-\$ or US-5796575-\$ or US-5268817-\$ or US-5200913-\$ or US-4939514-\$ or US-	US-PGPUB; USPAT; USOCR	OR	ON	2011/08/29 20:52

		3468576-\$ or US-7138962-\$ or US-6859219-\$ or US-6819304-\$ or US-6327482-\$ or US-6302612-\$ or US-6295038-\$ or US-6222507-\$ or US-5923307-\$ or US-5900848-\$ or US-5790371-\$ or US-5128662-\$ or US-7428142-\$ or US-7911783-\$ or US-6437974-\$ or US-6492974-\$ or US-6341061-\$ or US-6144358-\$ or US-5926364-\$ or US-7467356-\$ or US-7932894-\$).did. or (US-3468576-\$).did.				
L4	12	I3 and I2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:52
L5	1726223	sensor	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:53
L6	47192	I2 and I5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:53
L7	32980	I2 with I5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:53
L8	1060400	computer and display	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:53
L9	12976	I8 and I7	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:53
L10	202509	laptop	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:53

L11	3494	I9 and I10	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:53
L12	484	361/679.26.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:54
L13	7	I12 and I11	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:54
L14	181346	"361".clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:54
L15	33	I11 and I14	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 20:54
L16	2770	361/679.21,679.26,679.27.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 21:14
L17	5334	455/575.1-575.4.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 21:14
S1	2412	361/679.21,679.26,679.27.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 13:13
S2	4589	455/575.1-575.4.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 13:13

S3	40	("20050210399"   "20050257400"   "20070138806"   "20070182663"   "20080042987"   "20090300511"   "20090303676"   "3468576"   "4939514"   "5200913"   "5268817"   "5796575"   "5825352"   "5841631"   "5949643"   "5987704"   "6005767"   "6223393"   "6262885"   "6266236"   "6275376"   "6323846"   "6343006"   "6377444"   "6510049"   "6628267"   "6659516"   "6661426"   "6697055"   "6771494"   "6788527"   "6829140"   "6944012"   "6963485"   "7061472"   "7072179"   "7239508"   "7250207"   "D416003").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 13:14
S4	71	behar-yves.in. morenstein-joshua.in. hibmacronan-christopher.in. edahiro-naoya.in. day-matthew.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 13:55
S5	1	12/170939.app.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 13:55
S6	45	"wells fargo".as.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 13:55
S7	96461	configuration with display	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:30
S8	2236885	sensor or detector	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:31
S9	234059	laptop or "notebook computer" or "portable computer"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:31
S10	4561	S7 same S8	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:31

S11	692	S10 and S9	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:31
S12	474291	hinge	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:32
S13	88	S12 and S11	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:32
S14	522	kilpatrick.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:36
S15	0	kilpatrick,ii-thomas.in. or kilpatrick,ii-thomas-e.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:37
S16	23	("20010054988"   "20020005818"   "20020021258"   "20060176557"   "5128662"   "5132839"   "5459825"   "5465315"   "5467102"   "5629833"   "5682529"   "5768096"   "5790371"   "5900848"   "5923307"   "5949643"   "6222507"   "6295038"   "6302612"   "6327482"   "6819304"   "6859219"   "7138962").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:45
S17	2969	345/168.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 18:24
S18	70	(US-20090300511-\$ or US-20080042987-\$ or US-20070182663-\$ or US-20070138806-\$ or US-20050257400-\$ or US-20050210399-\$ or US-20090303676-\$ or US-20090244832-\$ or US-20100085382-\$ or US-20100085274-\$ or US-20100079355-\$ or US-20100066643-\$ or US-20100064536-\$ or US-20100064244-\$ or US-20100060664-\$ or US-20090315867-\$ or US-20090295975-\$ or US-20090275366-\$ or US-20020021258-\$ or US-20020005818-\$ or US-20090115802-\$	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/10 16:42



		or US-20090016003-\$ or US-20080284738-\$ or US-20060268500-\$ or US-20060264243-\$).did. or (US-7250207-\$ or US-7239508-\$ or US-7072179-\$ or US-7061472-\$ or US-6963485-\$ or US-6944012-\$ or US-6829140-\$ or US-6788527-\$ or US-6771494-\$ or US-6697055-\$ or US-6661426-\$ or US-6659516-\$ or US-6628267-\$ or US-6510049-\$ or US-6377444-\$ or US-6343006-\$ or US-6323846-\$ or US-6275376-\$ or US-6266236-\$ or US-6262885-\$ or US-6223393-\$ or US-6005767-\$ or US-5987704-\$ or US-D416003-\$ or US-5949643-\$ or US-5841631-\$).did. or (US-5825352-\$ or US-5796575-\$ or US-5268817-\$ or US-5200913-\$ or US-4939514-\$ or US-3468576-\$ or US-7138962-\$ or US-6859219-\$ or US-6819304-\$ or US-6327482-\$ or US-6302612-\$ or US-6295038-\$ or US-6222507-\$ or US-5923307-\$ or US-5900848-\$ or US-5790371-\$ or US-5128662-\$ or US-7428142-\$).did. or (US-3468576-\$).did.				
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S21	0	S19 and S20	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:56

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S23	1	S20 and S22	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:56
S24	444282	(first same second same display) or (multiple with display)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:58


S25	335773	laptop or "portable electronic device" or "notebook computer" or cellphone or "mobile phone"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:59
S26	62373	S25 and S24	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:59
S27	394	S26 and S20	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:59
S28	2865631	rotate or rotatable or rotating	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:59
S29	216	S28 and S27	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:59
S30	176611	"361".clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:59
S31	5	S30 and S29	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:59
S32	1	12/170939.app.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 20:40
S33	2562	361/679.21,679.26,679.27.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/20 17:56

S34	4952	455/575.1-575.4.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/20 17:56
S35	3145	345/168.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/20 17:57
S36	78	(US-20090300511-\$ or US-20080042987-\$ or US-20070182663-\$ or US-20070138806-\$ or US-20050257400-\$ or US-20050210399-\$ or US-20090303676-\$ or US-20090244832-\$ or US-20100085382-\$ or US-20100085274-\$ or US-20100079355-\$ or US-20100066643-\$ or US-20100064536-\$ or US-20100064244-\$ or US-20100060664-\$ or US-20090315867-\$ or US-20090295975-\$ or US-20090275366-\$ or US-20020021258-\$ or US-20020005818-\$ or US-20090115802-\$ or US-20090016003-\$ or US-20080284738-\$ or US-20060268500-\$ or US-20060264243-\$ or US-20090322790-\$).did. or (US-20090244012-\$ or US-20050282596-\$ or US-20050128695-\$ or US-20050063145-\$ or US-20080062625-\$ or US-20060126284-\$ or US-20050146845-\$).did. or (US-7250207-\$ or US-7239508-\$ or US-7072179-\$ or US-7061472-\$ or US-6963485-\$ or US-6944012-\$ or US-6829140-\$ or US-6788527-\$ or US-6771494-\$ or US-6697055-\$ or US-6661426-\$ or US-6659516-\$ or US-6628267-\$ or US-6510049-\$ or US-6377444-\$ or US-6343006-\$ or US-6323846-\$ or US-6275376-\$ or US-6266236-\$ or US-6262885-\$ or US-6223393-\$ or US-6005767-\$ or US-5987704-\$ or US-D416003-\$ or US-5949643-\$ or US-5841631-\$).did. or (US-5825352-\$ or US-5796575-\$ or US-5268817-\$ or US-5200913-\$ or US-4939514-\$ or US-3468576-\$ or US-7138962-\$ or US-6859219-\$ or US-6819304-\$ or US-6327482-\$ or US-6302612-\$ or US-6295038-\$ or US-6222507-\$ or US-5923307-\$ or US-5900848-\$ or US-5790371-\$ or US-5128662-\$ or US-7428142-\$).did. or (US-3468576-\$).did.	US-PGPUB; USPAT; USOCR	OR	ON	2011/07/25 13:40

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S38	1	12/192232.app.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 15:24
S39	28	("5262926"   "5414444"   "5508720"   "5644338"   "5739810"   "5926364"   "5949643"   "5966284"   "6006243"   "6144358"   "6295038"   "6297752"   "6304431"   "6327482"   "6341061"   "6492974"   "6700773"   "6836404"). PN. OR ("7061472").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2011/08/29 15:42
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S41	1	"7467356".did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 17:18
S42	1	12/170951.app.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 17:19
S43	3	"20070247446".did. "20040001049". did. "20020010707".did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/08/29 17:21

8/ 29/ 2011 9:15:05 PM

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<b>Index of Claims</b> 	<b>Application/Control No.</b> 12170939	<b>Applicant(s)/Patent Under Reexamination</b> BEHAR ET AL.
	<b>Examiner</b> ADRIAN S WILSON	<b>Art Unit</b> 2835

✓	<b>Rejected</b>
=	<b>Allowed</b>

-	<b>Cancelled</b>
÷	<b>Restricted</b>

N	<b>Non-Elected</b>
I	<b>Interference</b>

A	<b>Appeal</b>
O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE							
Final	Original	07/01/2010	01/20/2011	08/29/2011					
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	11	✓	✓	✓					
	12	✓	=	✓					
	13	✓	✓	✓					
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	18	✓	✓	✓					
	19	✓	✓	✓					
	20	✓	✓	✓					
	21	✓	✓	✓					
	22		✓	-					
	23		✓	✓					
	24		✓	✓					
	25		✓	✓					

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939	
	Filing Date		2008-07-10	
	First Named Inventor	Yves Behar		
	Art Unit	2835		
	Examiner Name	A. S. Wilson		
	Attorney Docket Number	L2039-700110		

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Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	
	1	7467356		2008-12-16	Gettman et al.		

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	1	20070247446		2007-10-25	Orsley et al.		
	2	20040001049	A1	2004-01-04	Oakley		
	3	20020010707	A1	2002-01-24	Chang		

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	1							<input type="checkbox"/>

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939
	Filing Date		2008-07-10
	First Named Inventor	Yves Behar	
	Art Unit		2835
	Examiner Name	A. S. Wilson	
	Attorney Docket Number		L2039-700110

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	1	Office Action L2039-700111 dated April 4, 2011, Serial No. 12/170,951	<input type="checkbox"/>

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Examiner Signature	/Adrian Wilson/	Date Considered	08/29/2011
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> See Kind Codes of USPTO Patent Documents at [www.USPTO.GOV](http://www.USPTO.GOV) or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.



<b>Search Notes</b>  	<b>Application/Control No.</b>  12170939	<b>Applicant(s)/Patent Under Reexamination</b>  BEHAR ET AL.
	<b>Examiner</b>  ADRIAN S WILSON	<b>Art Unit</b>  2835

SEARCHED			
Class	Subclass	Date	Examiner
361/679	679.21, 679.26, 679.27	07/01/2010	asw
455	575.1-575.4	07/01/2010	asw
345	168	07/01/2010	asw
361	679.21, 679.26, 679.27	1/20/2011	asw
455	575.1-575.4	1/20/2011	asw
345	168	1/20/2011	asw
361	679.21, 679.26, 679.27	08/29/2011	asw
455	575.1-575.4	08/29/2011	asw
345	168	08/29/2011	asw

SEARCH NOTES		
Search Notes	Date	Examiner
inventor and assignee search	07/01/2010	asw
East Search	07/01/2010	asw
Updated East Search	1/20/2011	asw
Updated East Search	08/29/2011	asw

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939	
	Filing Date		2008-07-10	
	First Named Inventor	Yves Behar		
	Art Unit	2835		
	Examiner Name	A. S. Wilson		
	Attorney Docket Number	L2039-700110		

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	1	7467356		2008-12-16	Gettman et al.		

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Examiner Initial*	Cite No	Publication Number	Kind Code <sup>1</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	
	1	20070247446		2007-10-25	Orsley et al.		
	2	20040001049	A1	2004-01-04	Oakley		
	3	20020010707	A1	2002-01-24	Chang		

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Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup> j	Kind Code <sup>4</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
	1							<input type="checkbox"/>

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	Examiner Name	A. S. Wilson	
	Attorney Docket Number		L2039-700110

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	1	Office Action L2039-700111 dated April 4, 2011, Serial No. 12/170,951	<input type="checkbox"/>

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939
	Filing Date		2008-07-10
	First Named Inventor	Yves Behar	
	Art Unit		2835
	Examiner Name	A. S. Wilson	
	Attorney Docket Number		L2039-700110

**CERTIFICATION STATEMENT**

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

**OR**

That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

**SIGNATURE**

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Matthew H. Grady/	Date (YYYY-MM-DD)	2011-04-29
Name/Print	Matthew H. Grady	Registration Number	52957

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

## Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4).

Dated: April 29, 2011  
Electronic Signature for Matthew H. Grady: /Matthew H. Grady/

Docket No.: L2039-700110  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Yves Behar et al.

Application No.: 12/170,939

Confirmation No.: 1986

Filed: July 10, 2008

Art Unit: 2835

For: PORTABLE COMPUTER WITH MULTIPLE  
DISPLAY CONFIGURATIONS

Examiner: A. S. Wilson

**INFORMATION DISCLOSURE STATEMENT (IDS)**

MS AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement, pursuant to 37 CFR 1.114(c), accompanies the Request for Continued Examination (37 CFR 1.114) submitted herewith.

In accordance with 37 CFR 1.98(a)(2)(ii), Applicant has not submitted copies of U.S. patents and U.S. patent applications. Applicant submits herewith copies of foreign patents and non-patent literature in accordance with 37 CFR 1.98(a)(2).

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that any

patent, publication or other information referred to therein is “prior art” for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 50/2762, under Order No. L2039-700110.

Dated: April 29, 2011

Respectfully submitted,

Electronic signature: /Matthew H. Grady/  
Matthew H. Grady

Registration No.: 52,957

Sarah M. Gates

Registration No.: 60,661

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(617) 395-7000

Attorneys for Applicant

<b>Electronic Patent Application Fee Transmittal</b>				
<b>Application Number:</b>	12170939			
<b>Filing Date:</b>	10-Jul-2008			
<b>Title of Invention:</b>	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS			
<b>First Named Inventor/Applicant Name:</b>	Yves Behar			
<b>Filer:</b>	Matthew H. Grady/Lori Biancuzzo			
<b>Attorney Docket Number:</b>	L2039-700110			
Filed as Large Entity				
<b>Utility under 35 USC 111(a) Filing Fees</b>				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
<b>Extension-of-Time:</b>				



Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
Request for continued examination	1801	1	810	810
<b>Total in USD (\$)</b>				<b>810</b>

<b>Electronic Acknowledgement Receipt</b>	
<b>EFS ID:</b>	9983842
<b>Application Number:</b>	12170939
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	1986
<b>Title of Invention:</b>	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS
<b>First Named Inventor/Applicant Name:</b>	Yves Behar
<b>Customer Number:</b>	37462
<b>Filer:</b>	Matthew H. Grady/Lori Biancuzzo
<b>Filer Authorized By:</b>	Matthew H. Grady
<b>Attorney Docket Number:</b>	L2039-700110
<b>Receipt Date:</b>	29-APR-2011
<b>Filing Date:</b>	10-JUL-2008
<b>Time Stamp:</b>	10:32:02
<b>Application Type:</b>	Utility under 35 USC 111(a)

**Payment information:**

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$810
RAM confirmation Number	11695
Deposit Account	502762
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

- Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)
- Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)  
 Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)  
 Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

**File Listing:**

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Continued Examination (RCE)	L2039-700110_-_Request_for_Continued_Examination_Fillable_PDF.pdf	790966 e2b2fb161d8f29c09ac6f5def1f44ecb7d7409a1	no	3

**Warnings:**

**Information:**

2		L2039-700110_-_Amendment.PDF	102174 f4b82c574ed8145487e12df3dd497336a690d4fb	yes	16
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**Multipart Description/PDF files in .zip description**

Document Description	Start	End
Amendment After Final	1	1
Claims	2	7
Applicant Arguments/Remarks Made in an Amendment	8	16

**Warnings:**

**Information:**

3	Information Disclosure Statement (IDS) Filed (SB/08)	L2039-700110_-_Information_Disclosure_Statement_Fillable_PDF.pdf	612476 b956145d0c9a18ee80caa2dbe4a69e7e519d6157	no	4
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**Warnings:**

**Information:**

4	Transmittal Letter	L2039-700110_-_Information_Disclosure_Statement_IDS.PDF	26013 22da53d0376705db33f5327a2b33772aad28b1f3	no	2
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**Warnings:**

**Information:**

5	NPL Documents	L2039-700111_-_Office_Action_L2039_700111_dated_April_4_2011_12170951.pdf	333917 087160dfc575db7026d48d717413bad9785f94c6	no	11
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**Warnings:**

**Information:**

6	Fee Worksheet (PTO-875)	fee-info.pdf	30629 3544c588c6dfcb11df58c2cd1fe01f43b873a9c	no	2
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**Warnings:**

<b>Information:</b>	
<b>Total Files Size (in bytes):</b>	1896175
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  <b>If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  <b>If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  <b>If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</b></p>	

<b>REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL (Submitted Only via EFS-Web)</b>							
Application Number	12170939	Filing Date	2008-07-10	Docket Number (if applicable)	L2039-700110	Art Unit	2835
First Named Inventor	Yves Behar			Examiner Name	A. S. Wilson		
<p><b>This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.</b>            Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV</p>							
<b>SUBMISSION REQUIRED UNDER 37 CFR 1.114</b>							
<p>Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).</p>							
<p><input type="checkbox"/> Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.</p> <p style="margin-left: 40px;"><input type="checkbox"/> Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____</p> <p style="margin-left: 40px;"><input type="checkbox"/> Other _____</p> <p><input checked="" type="checkbox"/> Enclosed</p> <p style="margin-left: 40px;"><input checked="" type="checkbox"/> Amendment/Reply</p> <p style="margin-left: 40px;"><input checked="" type="checkbox"/> Information Disclosure Statement (IDS)</p> <p style="margin-left: 40px;"><input type="checkbox"/> Affidavit(s)/ Declaration(s)</p> <p style="margin-left: 40px;"><input type="checkbox"/> Other _____</p>							
<b>MISCELLANEOUS</b>							
<p><input type="checkbox"/> Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____            (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)</p> <p><input type="checkbox"/> Other _____</p>							
<b>FEES</b>							
<p><input checked="" type="checkbox"/> <b>The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.</b>            The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to            Deposit Account No <u>50/2762</u></p>							
<b>SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED</b>							
<p><input checked="" type="checkbox"/> Patent Practitioner Signature</p> <p><input type="checkbox"/> Applicant Signature</p>							

Doc code: RCEX

Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (07-09)

Approved for use through 07/31/2012. OMB 0851-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Signature of Registered U.S. Patent Practitioner			
Signature	/Matthew H. Grady/	Date (YYYY-MM-DD)	2011-04-29
Name	Matthew H. Grady	Registration Number	52957

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

## Privacy Act Statement

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1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
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I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4).

Dated: April 29, 2011  
Electronic Signature for Matthew H. Grady: /Matthew H. Grady/

Docket No.: L2039-700110  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Yves Behar et al.

Application No.: 12/170,939

Confirmation No.: 1986

Filed: July 10, 2008

Art Unit: 2835

For: PORTABLE COMPUTER WITH MULTIPLE  
DISPLAY CONFIGURATIONS

Examiner: A. S. Wilson

**AMENDMENT AFTER FINAL ACTION UNDER 37 C.F.R. 1.116**

MS AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In response to the Final Office Action mailed January 31, 2011, please amend the above-identified application as follows. Changes to the Claims are shown by strike through (for deleted matter) and underlining (for added matter).

**Amendments to the Claims** are reflected in the listing of claims which begins on page 2 of this paper.

**Remarks** begin on page 8 of this paper.



### Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

#### Listing of Claims:

1. (Currently Amended) A portable computer configurable between a plurality of display modes including a closed mode, a laptop mode and an easel mode, the portable computer comprising:
  - a display component including a display screen;
  - a base;
  - a hinge assembly at least partially housed within the base and the display component and configured to pivotably couple the display component to the base; wherein the hinge assembly defines a single longitudinal axis running along an interface between the display component and the base, and wherein the display component and the base are rotatable about a the single longitudinal axis running along an interface between the display component and the base;
    - wherein, in the closed mode, the display screen is disposed substantially against the base;
    - wherein rotating either the display component or the base about the single longitudinal axis up to approximately 180 degrees from the closed mode configures the portable computer into the laptop mode; and
    - wherein rotating either the display component or the base about the single longitudinal axis beyond approximately 180 degrees from the closed mode configures the portable computer into the easel mode.
  
2. (Currently Amended) The portable computer of claim 1, wherein the display component is rotatable about the single longitudinal axis up to approximately 320 degrees from the closed mode.

3. (Currently Amended) The portable computer of claim 1, further comprising a display orientation module that displays content on the display screen in one of a plurality of content orientations relative to the single longitudinal axis.
  
4. (Currently Amended) The portable computer of claim 3, further comprising a mode sensor which detects a current display mode of the portable computer; and  
wherein the display orientation module displays content on the display screen in the one of the plurality of content orientations ~~an orientation~~ dependent on the current display mode detected by the mode sensor.
  
5. (Currently Amended) The portable computer of claim 3, wherein the display orientation module is configured to display the content in a first content orientation relative to the single longitudinal axis when the portable computer is configured into the laptop mode and in a second content orientation relative to the single longitudinal axis when the portable computer is configured into the easel mode.
  
6. (Currently Amended) The portable computer of claim 5, wherein the second content orientation is 180 degrees relative to the first orientation.
  
7. (Currently Amended) The portable computer of claim 3, wherein the plurality of display modes further comprises a flat mode in which the display component is disposed at an angle of approximately 180 degrees, measured about the single longitudinal axis, relative to the base.
  
8. (Currently Amended) The portable computer of claim 7, wherein the plurality of content orientations comprises a first content orientation relative to the single longitudinal axis, a second content orientation relative to the single longitudinal axis, and a third content orientation relative to the single longitudinal axis; and  
wherein, in the flat mode, the ~~orientation of the~~ content displayed on the display screen is configurable among the first, second and third content orientations responsive to a user input.

9. (Currently Amended) The portable computer of claim 8, wherein the second content orientation is 90 degrees relative to the first content orientation; and  
wherein the third content orientation is 180 degrees relative to the first content orientation.
10. (Cancelled)
11. (Original) The portable computer of claim 1, further comprising:  
a foot disposed along at least a portion of the base and configured to support the portable computer when in the easel mode.
12. (Previously Presented) A portable computer comprising:  
a base;  
a display component rotatably coupled to the base;  
means for rotating the display component in a single direction relative to the base to configure the portable computer between a laptop mode and an easel mode;  
a display orientation module configured to automatically orient content displayed on the display component responsive to at least a transition between the laptop mode and the easel mode, wherein the display orientation module is further configured to orient the content displayed between a first display orientation and a second display orientation, the first and second display orientations being 180 degrees relative to each other; and  
means for detecting an orientation of the base relative to the display component, wherein the means for detecting is further configured to identify the transition between the laptop mode and the easel mode based on a stored threshold orientation.
13. (Currently Amended) A portable computer configurable between a laptop mode and an easel mode, the portable computer comprising:  
a display component;  
a base; and  
a hinge assembly configured to rotatably couple the display component to the base,  
wherein the hinge assembly is at least partially housed within the base and the display

component, and defines a single longitudinal axis running along an interface between the display component and the base;

wherein the hinge assembly is configured to permit rotation of the display component and the base about a the single axis to configure the portable computer between the laptop mode and the easel mode.

14. (Cancelled)

15. (Currently Amended) The portable computer of claim ~~13~~ 14, wherein the display component comprises a display screen configured to display content and a display orientation module configured to control an orientation of the content displayed on the display screen;

wherein the orientation of the content displayed on the display screen is configurable among a plurality of orientations relative to the longitudinal axis.

16. (Original) The portable computer of claim 15, wherein the plurality of orientations comprises a first orientation relative to the longitudinal axis and a second orientation relative to the longitudinal axis; and

wherein when display orientation module is configured to automatically display the content in the first orientation when the portable computer is configured into the laptop mode and in the second orientation when the portable computer is configured into the easel mode.

17. (Previously Presented) The portable computer of claim 16, wherein the second orientation is 180 degrees relative to the first orientation; and

wherein the plurality of orientations further comprises a third orientation relative to the longitudinal axis, the third orientation, wherein the third orientation is 90 degrees relative to the first orientation.

18. (Original) The portable computer of claim 15, further comprising a mode sensor configured to provide information representative of a degree of rotation of the display component relative to the base; and

wherein the display orientation module is configured to automatically adjust the orientation of the content displayed on the display screen responsive to the information from the mode sensor.

19. (Currently Amended) A method of automatically orienting content displayed on a portable computer comprising a display component including a single display screen and a base including an integrated keyboard, the method comprising:

rotating ~~a~~ the display component of the portable computer about a longitudinal axis running along an interface between the display component and ~~a~~ the base of the portable computer;

detecting a degree of rotation of the display component relative to the base;

providing a signal representative of the degree of rotation of the display component;

comparing the degree of rotation with respect to a threshold degree of rotation;

generating a visual display of the content for the single display screen; and

automatically configuring ~~an~~ a content orientation, relative to the longitudinal axis, of the visual display content displayed on the single display screen of the portable computer responsive to the signal, wherein the act of automatically configuring includes acts of:

displaying the visual display in a first content orientation of the content for the degree of rotation that is less than the threshold degree of rotation, and

displaying the visual display in a second content orientation of the content for the degree of rotation that is greater than the threshold degree of rotation, the second content orientation being at 180 degrees relative to the first orientation.

20. (Currently Amended) The method of claim 19, wherein automatically configuring the orientation of the content includes:

displaying the visual display of the content in a the first content orientation relative to the longitudinal axis responsive to the signal indicating that the degree of rotation of the display component is less than the threshold degree of rotation of approximately 180 degrees relative to the base; and

displaying the visual display of the content in a the second content orientation relative to the longitudinal axis responsive to the signal indicating that the degree of rotation of the display

component is greater than the threshold degree of rotation of approximately 180 degrees relative to the base.

21. (Currently Amended) A portable computer comprising:
  - a base unit comprising an integrated keyboard;
  - a display unit including a single display screen configured to display content;
  - an orientation sensor which detects ~~an~~ a physical orientation of the display unit relative to the base unit; and
  - a display orientation module which orients the content displayed on the single display screen responsive to the physical orientation detected by the orientation sensor between at least a first content display orientation and a second content display orientation, the second content display orientation being 180 degrees relative to the first content display orientation;
  - wherein the display orientation module is further configured to detect a change between a laptop mode and an easel mode based on the detected physical orientation of the display unit relative to the base unit, and wherein the display orientation module is further configured to trigger a display inversion from one of the first and second content display orientations to the other of the first and second content display orientations responsive to the orientation sensor detecting the change between the laptop mode and the easel mode.
22. (Cancelled)
23. (Previously Presented) The portable computer of claim 16, wherein the second orientation is 180 degrees relative to the first orientation.
24. (Previously Presented) The portable computer of claim 21, wherein the orientation sensor includes an accelerometer.
25. (Previously Presented) The portable computer of claim 24, the orientation sensor is configured to detect an angle of the base relative to the display unit.

### **REMARKS**

Claims 1-9 and 11-25 were previously pending in this application. Claims 1-9, 13, 15, and 19-21 have been amended herein. Claims 14 and 22 have been cancelled without prejudice or disclaimer. As a result claims 1-9, 11-13, 15- 21, and 23-25 are pending for examination with claims 1, 12, 13, 19, and 21 being independent claims. No new matter has been added. The Application as presented is believed to be in condition for allowance.

### **Examiner Interview**

Applicant wishes to thank Examiner Wilson for the courtesies extended to Applicant's Representative during the Interview of March 31, 2011. Applicant acknowledges that the Summary provided on April 8, 2011 accurately reflects the substance of the Interview.

### **Claim Objections**

The Office Action objected to claim 19 as being unclear with respect to the meaning of the "first orientation" and "second orientation." Without acceding to the correctness of the objection, Applicant has amended the claims to further clarify the meaning of "orientation" and to overcome the objection.

### **Rejections Under 35 U.S.C. §102**

Claims 1-10 and 12-21 stand rejected under 35 U.S.C. §102(b) as being anticipated by United States Patent Application Publication No. 2006/0264243 to Aarras (hereinafter Aarras). In response, Applicant has amended the claims to further distinguish over Aarras, and submits the following remarks in support of the patentability of the claims.

Aarras discloses "a portable electronic device ... including a first section having a first display on a first side of the first section; and a second section pivotably connected to the first section." (Para. 0007). The two sections are connected by a dual axis hinge, section 16, in Fig. 1-3. The dual axis hinge enables the device to present displays on the first and second sections according to a book metaphor. (Paras. 0010, 0038, and 0047-49). According to Aarras using the dual axis hinge permits "[t]he first and second sections ... to be repeatedly flipped forwards or backwards relative to each other similar to a top wirebound steno book or memo book." (Para. 0037).

Aarras discloses that the dual axis “connection section 16 preferably comprises a sensor 46 to sense when the first and second sections are moved relative to each other.” (Para. 0038). A “controller 24 is adapted to change an image displayed ... based ... upon ... the first and second sections ... hav[ing] been moved relative to each other ... such as from the first folded configuration [Fig. 1] to the second folded configuration [Fig. 3].” (Para. 0038). Pursuant to the disclosed book metaphor, the orientation of the content displayed on the Aarras device *does not* change, rather a first image is display on the first section, and in response to a user flipping the first section completely around, the second section is revealed which displays another image. (Please see 0038, 0043, 0047-0049). As Aarras describes, “[i]t basically presents a book metaphor for an electronic device user interface (UI).” (Para. 0047). According to the book metaphor the device can be configured so that a display is always visible, even when the device is folded “there is always a display showing.” (Para. 0048).

In summary, Aarras is directed to a portable electronic device that permits the sections of the device to be flipped like pages of a book via a bi-axial hinge section 16. (Please see para. 0007, 0010, 0044, 0047, and Figs. 1-3). The device can also include a rotatable section to allow the two sections to be rotated 180° perpendicular to the path of rotation of sections 12 and 14. (See para. 0039).

Aarras does not anticipate claim 1, as amended. In particular, Aarras does not teach or suggest a “hinge assembly” that “defines a single longitudinal axis running along an interface between the display component and the base, and wherein the display component and the base are rotatable about the single longitudinal axis,” as recited in claim 1, as amended. Rather, Aarras teaches and requires a dual axis hinge about which the two sections of the portable electronic device rotate in order to operate according to the disclosed “book” metaphor. (Please see Figs. 1-3, section 16, and related description – e.g. Para. 0007, 0010, 0044, and 0047). Without the dual axis hinge, the two sections of the Aarras device would not be capable of flipping completely around and would be unable to operate according to the book metaphor described. Thus, Aarras does not disclose a “hinge assembly” that “defines a single longitudinal axis running along an interface between the display component and the base, and wherein the display component and the base are rotatable about the single longitudinal axis,” as recited in claim 1, as amended.



The Office Action also states that Aarras teaches a “simpler” hinge type that has a single axis of rotation (see Office Action, p. 2, para. 4); however, the single axis pivot permits rotation of two portions of a single section in a direction perpendicular to the flipping of the two sections of the portable device. (Para. 0039). Thus, the disclosed single axis hinge cannot read on the “hinge assembly” that “defines a single longitudinal axis running along an interface between the display component and the base, and wherein the display component and the base are rotatable about the single longitudinal axis,” as recited in claim 1, as amended, because the single hinge permits rotation of two portions of a single section of the Aarras device in a direction perpendicular to the claimed rotation and does not permit rotation of the sections about each other. (Please see 0039, 0010, 0038, and 0047-49).

Accordingly withdrawal of the rejection of claim 1 is respectfully requested. As claims 2-9 depend from claim 1, they are allowable for at least the same reasons as is claim 1, and withdrawal of the rejection of claims 2-9 is respectfully requested.

#### Independent Claim 13

Aarras does not anticipate claim 13, as amended. In particular, Aarras does not teach or suggest a “hinge assembly” that “defines a single longitudinal axis running along an interface between the display component and the base” “wherein the hinge assembly is configured to permit rotation of the display component and the base about the single axis to configure the portable computer between the laptop mode and the easel mode,” as recited in claim 13, as amended.

As discussed above with respect to claim 1, Aarras is directed to a portable electronic device that permits the device sections to be flipped like pages of a book via a dual axis hinge 16. (Please see paras. 0007, 0010, 0044, 0047, and Figs. 1-3). The hinge 16 in Aarras employs a dual axis hinge, and therefore cannot teach or suggest the claimed rotation about the “single axis to configure the portable computer between the laptop mode and the easel mode.” Further, the “simple hinge” identified in the Office Action does not anticipate rotation about the “single axis to configure the portable computer between the laptop mode and the easel mode,” as recited. Rather, the two portions of one section can be “rotated 180° relative to each other orthogonal to the path of rotation illustrated in FIGS. 1-3.” (See Para. 0039). As Aarras discloses a dual axis hinge and a simple hinge that rotates “orthogonal to the path of rotation

illustrated in FIGS. 1-3,” neither structure anticipates the “hinge assembly” that “defines a single longitudinal axis running along an interface between the display component and the base” “wherein the hinge assembly is configured to permit rotation of the display component and the base about the single axis to configure the portable computer between the laptop mode and the easel mode,” as recited in claim 13, as amended, because the dual axis hinge does not disclose rotation about “a single axis,” and the simple hinge disclosed provides for rotation of the sections perpendicular to the claimed rotation.

Accordingly, withdrawal of the rejection of claim 13 is respectfully requested. As claims 14-18 depend from claim 13, they are allowable for at least the same reasons and withdrawal of the rejection of claims 14-18 is respectfully requested.

#### Independent Claim 19

Aarras does not anticipate claim 19, as amended. In particular, Aarras does not teach or suggest “automatically configuring the content orientation, relative to the longitudinal axis, of the content displayed on the single display screen of the portable computer responsive to the signal,” including “displaying the visual display in a first content orientation of the content for the degree of rotation that is less than the threshold degree of rotation, and displaying the visual display in a second content orientation of the content for the degree of rotation that is greater than the threshold degree of rotation, the second content orientation being at 180 degrees relative to the first orientation,” as recited in claim 19, as amended. As discussed in Aarras, the device “basically presents a book metaphor for an electronic device user interface (UI).” (Para. 0047). Pursuant to the disclosed book metaphor, the orientation of the content displayed on the Aarras device *does not* change, rather a first image is displayed on the first section, and in response to a user flipping the first section completely around, the second section is revealed which displays another image having the same content display orientation. (Please see e.g. 0038, 0043, 0047-0049).

In addition, there is no basis taught in the Aarras reference to support the allegations of inherency as alleged in the Office Action. As discussed above, Aarras does not teach or disclose a change in the orientation of displayed content responsive of the flipping of the sections of the device. Rather Aarras discloses “a book metaphor for an electronic device user interface (UI)” where a user accesses a second display having content oriented in the same direction as the

viewed display by rotating the viewed display section completely around and behind the second display. (Please see 0007, 0010, 0044, 0047, and Figs. 1-3). Paragraph 0048 of Aarras does not disclose a change in content orientation, but rather discusses the physical properties of the device during transition from a “folded” configuration (Fig. 1 and 3) and an “unfolded” configuration (Fig. 2 and 4-6), where even when “folded” a display is always visible. Paragraph 0048 does not indicate that a change in the orientation of content occurs. Further, it would be unreasonable for the content orientation to change during the described transition. Both displays are oriented for viewing from the same position when the sections of the device are rotated. Changing the orientation during the transition would require a second change in orientation so as to not display the content upside down having transitioned from Fig. 1 to Fig. 3. Particularly, there is nothing in Aarras to suggest that the claimed change in the content orientation is *necessarily* present, as is required to meet the standard for inherency. (Please see M.P.E.P. § 2112 sec. IV).

The only change in a content orientation disclosed in Aarras includes changing a display orientation from a first portrait type orientation to a second landscape type orientation in response to a second portion 94 of section 90 changing from a first position to a second position relative to the first portion 92 of the same section 90. (See para. 0059, and Figs. 31-33). Thus, any positional/orientation change of the displayed content disclosed in Aarras is 90 degrees and not 180 degrees as claimed. Further the transition occurs as a result of rotation of two portions of *one section* of the Aarras device, not as part of a transition from a laptop mode to an easel mode.

Accordingly, withdrawal of the rejection of claim 19 is respectfully requested. As claim 20 depends from claim 19, it is allowable for at least the same reasons and withdrawal of the rejection of claim 20 is respectfully requested.

#### Independent Claim 21

Aarras does not anticipate claim 21, as amended. In particular, Aarras does not teach or suggest “a display orientation module which orients the content displayed on the single display screen responsive to the physical orientation detected by the orientation sensor between at least a first content display orientation and a second content display orientation, the second content display orientation being 180 degrees relative to the first content display orientation,” as recited in claim 21, as amended. As discussed above, Aarras does not disclose changing a content

display orientation in response to the turning of the sections of the Aarras device like pages of a book. (Please see e.g. 0038, 0043, 0047-0049). Additionally, the only disclosure in Aarras including a change in content display orientation occurs in response to rotating two portions of a single section of the Aarras device, with the disclosed rotation occurring perpendicular to the claimed rotation. (See Figs. 31-33, and paras. 0058-59). Further, Aarras teaches changing a display orientation from a first portrait type orientation to a second landscape type orientation in response to a second portion 94 of section 90 changing orientation from a first position to a second position relative to the first portion 92 of the same section 90. (See para. 0059). Thus, the positional/orientation change is 90 degrees (portrait to landscape) and not 180 degrees as claimed.

Therefore, Aarras does not disclose the claimed display orientation module. In view of the foregoing, withdrawal of the rejection of claim 21 is respectfully requested.

#### Rejections Under 35 U.S.C. §103

Claims 24 and 25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Aarras taken alone.

Claims 24-25 depend from claim 21. As discussed above with respect to claim 21, Aarras does not teach or suggest all the elements of claim 21. Accordingly, the Official Notice does not cure the deficiencies discussed above. Therefore, Aarras when taken alone does not teach or suggest dependent claims 24-25.

The Office Action attempts to take Official Notice that accelerometers were well known, and “it would have been obvious to a person having ordinary skill ... to use an accelerometer as a rotation sensor.” (Please see Office Action, page 10, para. 0031). Applicant respectfully traverses the Officially Noticed facts. It is unclear from the record that the alleged facts were known at the time of the filing of the present application. In addition, the mere fact that accelerometers were known does not establish that accelerometers were known to detect a “physical orientation of the display unit relative to the base unit, as recited in claim 21. The Office Action has not set forth any evidence for accelerometers that are configured to detect a “physical orientation of the display unit relative to the base unit,” as recited in claim 21.

Accordingly, withdrawal of the rejection of claim 24 and 25 are respectfully requested.

Claim 11 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Aarras in view of U.S. Patent No. 6,295,038 to Rebeske (hereinafter Rebeske).

Claim 11 depends from independent claim 1. As discussed above, Aarras does not disclose or suggest several limitations recited in claim 1. Applicant does not concede that the combination of Aarras and Rebeske proposed in the Office Action is proper, and reserves the right to traverse the combination in the future. However, even considered in combination as proposed in the Office Action, Rebeske fails to cure the deficiencies of Aarras.

Rebeske is directed to a laptop computer that includes a second display screen hingedly secured to a first display screen that is also connected to the computer components with the computer case. (See Abstract). The second display screen permits an operator and an observer to observe the same information viewable on the first and second display screens, respectively. (Abstract).

The Office Action alleges that “Rebeske discloses a computer with a display component [sic] 30 and a base 35 is configurable in an easel mode disposed along a portion of the base 35.” (Office Action, p. 6, para. 23). Contrary to the allegations in the Office Action, Rebeske discloses a first display screen 30 and a second display screen 35 that is hinged to the first display. (Col. 2, lns 37-45). The Office Action alleges these display screens are a display and a base that are “stabilized with a foot 42.” Rebeske teaches that 42 is “a protective top 42” “hinged to the case that can then be pivoted.” (Col. 3, lns 41-45). Thus, Rebeske does not disclose “a foot disposed along at least a portion of the base and configured to support the portable computer when in the easel mode,” as recited in claim 11, and the combination does not teach or suggest each and every limitation recited in claim 11.

Further, Rebeske does not cure the deficiencies discussed above with respect to claim 1, from which claim 11 depends. Aarras teaches a dual axis hinge between two rotatable sections, and Rebeske teaches a laptop computer having a computer case 60 coupled to a first display screen 30, wherein the first display is coupled to a second display screen 35. Thus, neither Rebeske nor Aarras whether considered alone or in combination, teaches “rotating either the display component or the base about the single longitudinal axis up to approximately 180 degrees from the closed mode configures the portable computer into the laptop mode,” and “rotating either the display component or the base about the single longitudinal axis beyond approximately 180 degrees from the closed mode configures the portable computer into the easel

mode,” as recited in claim 1, as amended, as neither reference teaches claimed rotation about the longitudinal axis. Accordingly, withdrawal of the rejection of claim 11 is respectfully requested.

Claims 19 and 21 stand rejected in the alternative under 35 U.S.C. §103(a) as being unpatentable over Aarras in view of U.S. Patent No. 6,343,006 to Moscovitch et al. (hereinafter Moscovitch). As discussed above Aarras does not teach or suggest several limitations recited in claims 19 and 21. Further there is no support in the Aarras reference that the claimed limitations are inherent to the “book metaphor” operations disclosed. (Please see paras. e.g. 0038, 0043, 0047-0049; and Figs. 1-3).

The Office Action alleges that it would be obvious to provide an inversion of the image as taught by Moscovitch during the flipping of the sections of the Aarras device. (Please see Office Action, p. 12). The Office Action also alleges that Aarras discloses that “the image on the display can be altered so as allow viewing on both sides of the device and to allow images to be ‘turn[ed] completely around.’” (Office Action, p. 12, citing para. 0049). Applicant respectfully disagrees. In para. 0049 Aarras describes that the “physical embodiment can comprise *sections* able to *turn completely around.*” (Para. 0049). Aarras does not describe the image displayed on the physical section of the device, but rather refers to the sections of the device and flipping operation on *the sections* of the device – akin to the turning of pages of a spiral notebook.

It would be improper to modify Aarras to invert the image displayed on a section during the flipping of the sections disclosed. If one were to modify Aarras to invert the image as alleged, when the flipping operation was completed, a user of the Aarras device would be viewing an image upside down when the user next flipped a page. Such a change would not be reasonable, additionally such a change would render Aarras unsuited to its intended purpose which would be improper. (Please see M.P.E.P. § 2143.01 Sec. V). Aarras’ intended purpose includes providing for “[t]he first and second sections ... to be repeatedly flipped forwards or backwards relative to each other similar to a top wirebound steno book or memo book.” (Para. 0037). By inverting the images during transitions as alleged, the disclosed “book metaphor” would be broken. Last, modifying Aarras to invert the image during the flipping would change the nature of operation disclosed, which pursuant to the disclosed book metaphor, *does not* change the orientation of the content displayed. (Please see 0038, 0043, 0047-0049). A

modification which changes the nature of operation of the reference is improper. (Please see M.P.E.P. § 2143.01 Sec. VI).

Accordingly withdrawal of the alternative rejection of claims 19 and 21 is respectfully requested.

### **CONCLUSION**

In view of the foregoing amendments and remarks, reconsideration is respectfully requested. This application should now be in condition for allowance; a notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an accompanying payment, please charge any deficiency to Deposit Account No. 50/2762.

Dated: April 29, 2011

Respectfully submitted,

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<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875					Application or Docket Number <b>12/170,939</b>		Filing Date <b>07/10/2008</b>		<input type="checkbox"/> To be Mailed		
<b>APPLICATION AS FILED – PART I</b>					SMALL ENTITY <input type="checkbox"/>		OR		OTHER THAN SMALL ENTITY		
(Column 1)		(Column 2)									
FOR	NUMBER FILED	NUMBER EXTRA			RATE (\$)	FEE (\$)	OR		RATE (\$)	FEE (\$)	
<input type="checkbox"/> BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>	N/A	N/A			N/A				N/A		
<input type="checkbox"/> SEARCH FEE <small>(37 CFR 1.16(k), (l), or (m))</small>	N/A	N/A			N/A				N/A		
<input type="checkbox"/> EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>	N/A	N/A			N/A				N/A		
TOTAL CLAIMS <small>(37 CFR 1.16(i))</small>	minus 20 =		*			X \$ =		OR		X \$ =	
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>	minus 3 =		*			X \$ =		OR		X \$ =	
<input type="checkbox"/> APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).										
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>											
* If the difference in column 1 is less than zero, enter "0" in column 2.					TOTAL		OR		TOTAL		
<b>APPLICATION AS AMENDED – PART II</b>											
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OR		OTHER THAN SMALL ENTITY	
AMENDMENT	<b>04/29/2011</b>	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)
	Total <small>(37 CFR 1.16(i))</small>	* 22	Minus	** 24	= 0	X \$ =		OR		X \$52=	0
	Independent <small>(37 CFR 1.16(h))</small>	* 5	Minus	***5	= 0	X \$ =		OR		X \$220=	0
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>										
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>										
						TOTAL ADD'L FEE		OR		TOTAL ADD'L FEE	
										<b>0</b>	
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)
	Total <small>(37 CFR 1.16(i))</small>	*	Minus	**	=	X \$ =		OR		X \$ =	
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus	***	=	X \$ =		OR		X \$ =	
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>										
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>										
						TOTAL ADD'L FEE		OR		TOTAL ADD'L 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.											
Legal Instrument Examiner: /DORIS ISAAC/											

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
12/170,939 07/10/2008 Yves Behar L2039-700110 1986

37462 7590 04/08/2011
LANDO & ANASTASI, LLP
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EXAMINER

WILSON, ADRIAN S

ART UNIT PAPER NUMBER

2835

NOTIFICATION DATE DELIVERY MODE

04/08/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@LALaw.com
gengelso@LALaw.com

<b>Interview Summary</b>	<b>Application No.</b> 12/170,939	<b>Applicant(s)</b> BEHAR ET AL.	
	<b>Examiner</b> ADRIAN S. WILSON	<b>Art Unit</b> 2835	

All participants (applicant, applicant's representative, PTO personnel):

- (1) ADRIAN S. WILSON. (3) Sarah Gates (60,661).  
(2) Matthew Grady (52,957). (4) \_\_\_\_\_.

Date of Interview: 31 March 2011.

Type: a)  Telephonic b)  Video Conference  
c)  Personal [copy given to: 1)  applicant 2)  applicant's representative]

Exhibit shown or demonstration conducted: d)  Yes e)  No.  
If Yes, brief description: \_\_\_\_\_.

Claim(s) discussed: 1, 12, 13, 19 and 21.

Identification of prior art discussed: Aarras (of record).

Agreement with respect to the claims f)  was reached. g)  was not reached. h)  N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Applicant's representatives and the examiner discussed the general nature of applicant's invention and some of the differences between applicant's invention and the prior art of record. Specifically, applicants discussed independent Claims 1, 12, 13, 19 and 21 and how some of the limitations in these claims differed from the Aarras reference. We discussed some possible amendments to the claims to overcome the rejections in light of the Aarras reference. The examiner agrees that more specifically claiming the longitudinal axis of rotation in Claims 1 and 13 would help to distinguish those claims from the Aarras reference. Some possible clarifications to the claim language in Claims 19 and 21 were also discussed. The examiner will consider all future arguments and amendments. Amended claims will require a new search.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

/ADRIAN S WILSON/  
Examiner, Art Unit 2835

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/170,939	07/10/2008	Yves Behar	L2039-700110	1986
37462                      7590                      01/31/2011 LANDO & ANASTASI, LLP ONE MAIN STREET, SUITE 1100 CAMBRIDGE, MA 02142			EXAMINER WILSON, ADRIAN S	
			ART UNIT	PAPER NUMBER
			2835	
			NOTIFICATION DATE	DELIVERY MODE
			01/31/2011	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@LALaw.com  
gengelson@LALaw.com

<b>Office Action Summary</b>	<b>Application No.</b> 12/170,939	<b>Applicant(s)</b> BEHAR ET AL.	
	<b>Examiner</b> ADRIAN S. WILSON	<b>Art Unit</b> 2835	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 03 November 2010.
- 2a)  This action is **FINAL**.                      2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 1-9 and 11-25 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) 12 is/are allowed.
- 6)  Claim(s) 1-9, 11 and 13-25 is/are rejected.
- 7)  Claim(s) 19 is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.
  - Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  - Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a)  All    b)  Some \*    c)  None of:
      - 1.  Certified copies of the priority documents have been received.
      - 2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      - 3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 11/03/2010.
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5)  Notice of Informal Patent Application
- 6)  Other: \_\_\_\_\_.

**DETAILED ACTION**

***Reply Under 37 CFR 1.111***

1. The Amendments and Applicant Arguments submitted on 11/03/2010 have been received and its contents have been carefully considered. The examiner wishes to thank the Applicant for the response to the Examiner's action.

2. Claims 1-25 are pending in this application. Claims 1, 12-13, 17 and 19-21, as currently amended, are presented for examination. Claims 2-9, 11, 14-16 and 18, as originally submitted, are presented for examination. Claim 10 has been cancelled.

***Claim Objections***

3. Claim 19 is objected to because of the following informalities. "A first orientation" and "a second orientation" is ambiguous in relation to applicant's invention. Applicant claims "displaying a first orientation of the content" and "displaying a second orientation of the content" which is consistent with the claim language up to this point in the claim. However, applicant goes on to claim "the second orientation being at 180 degrees relative to the first orientation". It is unclear what applicant intends with this language. It appears from applicant's disclosure that this language is intended to claim that the first orientation switches to the second orientation when the display component rotates to 180 degrees relative the base (i.e. the "threshold degree" is 180 degrees). However, it could also mean that the first orientation (i.e. the image on the display) is inverted as compared to the second orientation. Though relating two images as being the inversion of each other by saying that one is 180 degrees relative to the other is unusual and possibly improper. For purposes of expediting prosecution it will be deemed that the

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applicant is essentially claiming that the threshold degree is 180 degrees. Appropriate correction is required.

***Claim Interpretation, 35 USC § 112, 6<sup>th</sup> Paragraph***

4. The following is a quotation of the sixth paragraph of 35 U.S.C. 112:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

5. Per MPEP 2181, a claim limitation will be presumed to invoke 35 U.S.C. 112, sixth paragraph, if it meets the following 3-prong analysis:

(A) the claim limitations must use the phrase “means for ” or “step for; ”

(B) the “means for ” or “step for ” must be modified by functional language;  
and

(C) the phrase “means for ” or “step for ” must not be modified by sufficient structure, material, or acts for achieving the specified function.

6. Applicant has stated in Applicant’s Arguments, pp. 9-10, that applicant intends to invoke §112, 6<sup>th</sup> paragraph for Claim 12. In re Claim 12, the limitation “means for rotating the display component in a single direction relative to the base to configure the portable computer between a laptop mode and an easel mode” meets the three-prong test per MPEP 2181 and thereby invokes 35 USC § 112, 6<sup>th</sup> Paragraph. For the “means for rotating” limitation, the incorporated limitations from applicant's specification are applicant's hinge assembly 138 and all associated parts (housing 142, shaft 154, springs 156, member 158, bracket 140), as disclosed in paragraphs 0067-0068 and Figures 7a-10.

7. In re Claim 12, the limitation “means for detecting an orientation of the base relative to the display component” meets the three-prong test per MPEP 2181 and thereby invokes 35 USC § 112, 6<sup>th</sup> Paragraph. For the “means for detecting” limitation, the incorporated limitations from applicant's specification are applicant's sensor which is not shown in the drawings but is described in paragraphs 0011, 0015, 0059-0061 and 0063.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-9 and 13-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Aarras (US Publication 2006/0264243).

10. In re Claim 1, Aarras discloses a portable computer (See Aarras, para 0033) configurable between a plurality of display modes including a closed mode (Id. at Figure 1 or 3), a laptop mode (Id. at Figure 2) and an easel mode (Id. at Figure 1 or 3), the portable computer comprising: a display component 12 including a display screen 30; a base 14; a hinge assembly 16 at least partially housed within the base 14 and configured to pivotally couple the display component 12 to the base 14; wherein the display component 12 is rotatable about a longitudinal axis running along an interface between the component 12 and the base 14; wherein, in the closed mode (Figure 1), the display 30 is against the base 14; wherein rotating the component 12 about the axis



up to 180 degrees from the closed mode configures the computer into the laptop mode (Figure 2); and wherein rotating the component 12 about the axis beyond 180 degrees from the closed mode configures the computer into the easel mode (Figure 3). See also, *id.* at para 0039 (disclosing a simpler hinge type that has a single axis of rotation). Aarras also discloses wherein the display component 12 and the base 14 are rotatable about a longitudinal axis running along an interface between the display component and the base (i.e. either the axis of rotation where hinge 16 connects to the display component 12 or the axis where the hinge 16 connects to the base 14).

11. In re Claim 13, Aarras discloses a portable computer (See *id.* at para 0033) configurable between a laptop mode (See Figure 2) and an easel mode (See Figure 3), the computer comprising: a display component 12; a base 14; and a hinge assembly 16 configured to rotatably couple the component 12 to the base 14; wherein the hinge 16 is configured to permit rotation of the component 12 about a single axis to configure the computer between the laptop mode and easel mode. See also, *id.* at para 0039 (disclosing a simpler hinge type that has a single axis of rotation). Aarras also discloses wherein the hinge assembly 16 is at least partially housed within the base 14. See, *id.* at Figures 1-3.

12. In re Claim 19, Aarras discloses a method of automatically orienting content displayed on a portable computer, the method comprising: rotating a display component 12 of the computer about a longitudinal axis (i.e. either of the axes of hinge 16) running along an interface between the component 12 and the base 14; detecting a degree of rotation (i.e. via sensor 46) of the component 12 relative the base 14;

providing a signal representative of the degree of rotation (Aarras, para 0038); comparing the degree of rotation with respect to a threshold degree of rotation (id., it is inherent that there is a threshold point where the sensor will detect rotation and switch between one image signal and another image signal); and automatically configuring an orientation (i.e. which image signal to display), relative to the longitudinal axis, of the content displayed on the computer responsive to the signal wherein the act of automatically configuring includes steps of: display a first orientation of the content (i.e. a first image) when the degree of rotation is less than the threshold degree of rotation (i.e. the display component is in a first mode, see Aarras, para 0038), and displaying a second orientation of the content for the degree of rotation that is greater than the threshold degree of rotation (i.e. changing the display image when the display component is rotated past the threshold point, such as when it is rotated to a second mode, see id.). Aarras also discloses that the threshold degree could be at 180 degrees because Aarras discloses 2 configurations (Figures 1-3) that are each 180 degrees rotation of the component 12 relative the base 14 and that the image of the display (i.e. 32) can remain operational and viewable as it is being rotated from one mode (i.e. Figure 1) 180 degrees to another mode (i.e. Figure 2), wherein for the image to be viewable as shown in Figure 2 the image would have to be inverted from what was shown on the display in Figure 1. See Aarras, paras 0038, 0048-0049.

13. In re Claim 21, Aarras discloses a portable computer comprising: a base unit 14; a display unit 12 including a display screen 30 configured to display an image; an orientation sensor 46 which detects an orientation of the display unit 12 relative the

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base 14; and a display orientation module 24 which orients the content (i.e. send an image signal) displayed on the display screen 30 responsive to the orientation detected by the sensor 46 between at least a first display orientation and a second display orientation (i.e. Figures 1 and 2), the second orientation being 180 degrees relative the first orientation; wherein the module 24 is further configured to detect the change between a laptop mode (i.e. Figure 2) and an easel mode (Figure 1 or Figure 2) based on the detected orientation, and wherein the display module 24 inverts the image when the computer changes from the laptop mode to the easel mode. Aarras, paras 0038, 0048, 0049.

14. In re Claim 2, Aarras discloses a display component 12 that is rotatable about an axis up to 320 degrees from a closed mode (Figure 1 to Figure 3).

15. In re Claim 3, Aarras discloses a display orientation module 24 that displays content on the display screen 30 in one of the plurality of orientations relative to the axis.

16. In re Claim 4, Aarras discloses a mode sensor 46 which detects a current display mode (Figures 1-3) of the computer; and wherein the display orientation module 24 displays content on the display screen 30 in an orientation dependent on the current display mode detected by the sensor 46.

17. In re Claim 5, Aarras discloses wherein the display orientation module 24 is configured to display the content in a first orientation (Figure 2) relative to the axis when the computer is in the laptop mode and in a second configuration (Figure 3) when the computer is in the easel mode. *Id.* at para 0038.

18. In re Claim 6, Aarras discloses a first orientation (Figure 2) that is 180 degrees relative a second orientation (Figure 3).

19. In re Claim 7, Aarras discloses a flat mode wherein the display component 12 is disposed at an angle of 180 degrees measured about the axis relative the base 14.

20. In re Claims 8 and 9, Aarras discloses a display component 12 with a first orientation (Figure 10), second orientation (Figure 9) and third orientation (Figure 7, 8), wherein the first orientation is 90 degrees relative to the second orientation. Aarras also discloses wherein the image displayed (i.e. 54) can be controlled (whether in a flat mode or a plurality of other modes) by a user input. *Id.* at para 0040-0044.

21. In re Claim 14, Aarras discloses an axis (about 44) that runs along an interface between the display component 12 and base 14. See also, *id.* at para 0039 (disclosing a simpler hinge type that has a single axis of rotation).

22. In re Claim 15, Aarras discloses a display component 12 that also comprises a display screen 30 configured to display content and a display orientation module 24 configured to control the content that is displayed on the screen 30; wherein the content displayed is configurable among a plurality of orientations relative to the rotation of the display component 12 about the axis.

23. In re Claims 16 and 18, Aarras discloses a plurality of orientations (See Figures 7-18); and a module 24 that automatically adjusts the content on the display 30 (via sensor 46) based on the orientation the computer is in (i.e. laptop mode, easel mode, etc).

24. In re Claim 17, Aarras discloses a second orientation (Figure 2) that is 180 degrees relative a first orientation (Figures 1 or 3); and wherein the plurality of orientations further comprises a third orientation relative to the longitudinal axis that is 90 degrees relative to the first orientation (i.e. the third orientation is somewhere between the first and second orientations and Aarras discloses that the display component 12 and/or base 14 can rotate from 0 degrees to 360 degrees from the first orientation, therefore it can also rotate to a third orientation 90 degrees from the first orientation).

25. In re Claim 20, Aarras discloses that an image on a display 30 or 32 is shown when a display component 12 or 14 is below a threshold rotation of 180 degrees (i.e. Figure 1); and displays another image in a second orientation when the display component is rotated beyond a threshold rotation of 180 degrees (i.e. Figure 2). Aarras, paras 0038, 0048, 0049.

26. In re Claim 22, Aarras discloses a hinge assembly 16 that is configured to permit rotation of the base 14 about a single axis (i.e. either of the two axes of the hinge assembly).

27. In re Claim 23, Aarras discloses wherein the second orientation is 180 degrees relative the first orientation (i.e. between Figures 1 or 3 and Figure 2).

28.

***Claim Rejections - 35 USC § 103***

29. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

30. Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aarras (US Publication 2006/0264243) taken alone.

31. In re Claim 24, Aarras discloses a sensor 46 that detects the changing of the angle between a display component 12 and a base 14. Aarras also discloses that the sensor 46 can detect whether the display component 12 is being flipped forward or backwards. Aarras, para 0038. Aarras does not explicitly disclose that the sensor is an accelerometer. The examiner takes official notice of facts outside the record, that accelerometers were well known in the art of portable electronics at the time of the invention. Therefore, it would have been obvious to a person having ordinary skill in the art of portable electronics at the time of the invention to use an accelerometer as the rotation sensor for the portable computer as disclosed by Aarras, in order to provide a small and inexpensive type of rotation sensor.

32. In re Claim 25, Aarras discloses an orientation sensor 46 that detects an angle of the base 14 relative to the display unit 12.

33. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aarras (US Publication 2006/0264243) in view of Rebeske (US Patent 6,295,038).

34. In re Claim 11, Aarras discloses all the limitations of Claim 1 above, but does not explicitly disclose a foot to stabilize the computer when in the easel mode. However, Rebeske discloses a computer with a display component 34 and a base 35 that is configurable in an easel mode (Rebeske, Figure 1) and is stabilized with a foot 42 that

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is disposed along a portion of the base 35. It would have been obvious to one having ordinary skill in the art of portable electronics at the time the invention was made to provide a stabilizing foot as taught by Rebeske, since Aarras does suggest that the computer 10 can be placed on a flat surface (See Figure 19) and could use additional stabilizing features (such as a lock in the hinge assembly 16) when in an easel mode. *Id.* at para 0050.

35. Claims 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aarras (US Publication 2006/0264243) in view of Moscovitch et al. (US Patent 6,343,006).

36. In re Claim 19, *in the alternative to the §102 rejection to Claim 19 above*, Aarras discloses a method of automatically orienting content displayed on a portable computer, the method comprising: rotating a display component 12 of the computer about a longitudinal axis (i.e. either of the axes of hinge 16) running along an interface between the component 12 and the base 14; detecting a degree of rotation (i.e. via sensor 46) of the component 12 relative the base 14; providing a signal representative of the degree of rotation (Aarras, para 0038); comparing the degree of rotation with respect to a threshold degree of rotation (*id.*, it is inherent that there is a threshold point where the sensor will detect rotation and switch between one image signal and another image signal); and automatically configuring an orientation (i.e. which image signal to display), relative to the longitudinal axis, of the content displayed on the computer responsive to the signal wherein the act of automatically configuring includes steps of: display a first orientation of the content (i.e. a first image) when the degree of rotation is less than the

threshold degree of rotation (i.e. the display component is in a first mode, see Aarras, para 0038), and displaying a second orientation of the content for the degree of rotation that is greater than the threshold degree of rotation (i.e. changing the display image when the display component is rotated past the threshold point, such as when it is rotated to a second mode, see id.). *In the alternative, if it is deemed that Aarras does not disclose a threshold degree of 180 degrees and does not disclose inverting an image after rotation about the threshold degree, it would have been obvious to incorporate such a function with a portable computer.* For example, with reference to Figures 26 and 27, Moscovitch discloses a portable computer comprising a display component 12B and a base C, wherein when the display component 12B rotates beyond the threshold of 180 degrees relative the base C the image on the component 12B is inverted. Moscovitch, col. 10 ll. 19-33. It would have been obvious to one having ordinary skill in the art of portable electronics at the time the invention was made to provide an inversion of an image as taught by Moscovitch, since Aarras suggests that a sensor 46 may be used to vary an image on a display 30, 32 based on the level of rotation of a display component 12 in relation to a base 14. Aarras also suggests that the image on the display can be altered so as allow viewing on both sides of the device and to allow images to be "turn[ed] completely around". Aarras, paras 0038, 0048, 0049. Inverting the image allows a user to view the same image as previously viewed before the display component was rotated. It also allows for two users to view the same image from opposite sides of the computer.



37. In re Claim 21, *in the alternative to the §102 rejection to Claim 21 above*, Aarras discloses a portable computer comprising: a base unit 14; a display unit 12 including a display screen 30 configured to display an image; an orientation sensor 46 which detects an orientation of the display unit 12 relative the base 14; and a display orientation module 24 which orients the content (i.e. send an image signal) displayed on the display screen 30 responsive to the orientation detected by the sensor 46 between at least a first display orientation and a second display orientation (i.e. Figures 1 and 2), the second orientation being 180 degrees relative the first orientation; wherein the module 24 is further configured to detect the change between a laptop mode (i.e. Figure 2) and an easel mode (Figure 1 or Figure 2) based on the detected orientation. *If it is deemed that Aarras does not disclose an inversion of the image on a display upon switching from a laptop mode to a easel mode, , it would have been obvious to incorporate such a function with a portable computer.* For example, with reference to Figures 26 and 27, Moscovitch discloses a portable computer comprising a display component 12B and a base C, wherein when the display component 12B rotates beyond the threshold of 180 degrees relative the base C the image on the component 12B is inverted. Moscovitch, col. 10 ll. 19-33. It would have been obvious to one having ordinary skill in the art of portable electronics at the time the invention was made to provide an invertible image as taught by Moscovitch, since Aarras suggests that a sensor 46 may be used to vary an image on a display 30, 32 based on the level of rotation of a display component 12 in relation to a base 14. Aarras also suggests that the image on the display can be altered so as allow viewing on both sides of the device

and to allow images to be "turn[ed] completely around". Aarras, paras 0038, 0048, 0049. Inverting the image allows a user to view the same image as previously viewed before the display component was rotated. It also allows for two users to view the same image from opposite sides of the computer.

***Response to Arguments***

38. Applicant's arguments filed on 11/03/2010 have been fully considered but they are not persuasive. Specifically, applicant argues that Claim 1 should be allowable because Aarras fails to disclose "wherein the display component and the base are rotatable about a longitudinal axis running along an interface between the display component and the base." Applicant's Arguments, pp. 8-9. The examiner respectfully disagrees. The applicant is reminded that the claims must be given their "broadest reasonable interpretation." See MPEP §2111. As noted above in the rejection to Claim 1, Aarras discloses wherein the display component 12 and the base 14 are rotatable about a longitudinal axis running along an interface between the display component and the base (i.e. either the axis of rotation where hinge 16 connects to the display component 12 or the axis where the hinge 16 connects to the base 14). The fact that the hinge 16 in Aarras has two axes of rotation is immaterial in this instance because either axis can be "the longitudinal axis" as claimed in applicant's Claim 1. Also, since an "axis" is an arbitrary point or line in space about which something rotates, it is not necessary associated with any of the physical parts of the portable computer. All that the claim requires is for the display component and base to rotate "about a longitudinal axis running along an interface between the display component and the base." Either of

the axes of rotation disclosed in Aarras satisfies this limitation. Therefore, the rejection to Claim 1 is still maintained even in light of applicant's current amendments.

39. Applicant also argues that Aarras fails to disclose "wherein the hinge assembly is configured to permit rotation of the display component about a single axis to configure the portable computer between the laptop mode and the easel mode" in Claim 13. The examiner respectfully disagrees. Similar to the rationale expressed above with respect to applicant's arguments regarding Claim 1, Aarras discloses wherein the display component 12 and the base 14 are rotatable about a longitudinal axis running along an interface between the display component and the base (i.e. either the axis of rotation where hinge 16 connects to the display component 12 or the axis where the hinge 16 connects to the base 14). The fact that the hinge 16 in Aarras has two axes of rotation is immaterial in this instance because either axis can be "the longitudinal axis" as claimed in applicant's Claim 1. Also, since an "axis" is an arbitrary point or line in space about which something rotates, it is not necessary associated with any of the physical parts of the portable computer. All that the claim requires is for a hinge assembly to be "configured to permit rotation of the display component about a single axis to configure the portable computer between the laptop mode and the easel mode." Either of the axes of rotation disclosed in Aarras satisfies this limitation. Therefore, the rejection to Claim 13 is still maintained even in light of applicant's current amendments.

40. Applicant further argues that Aarras fails to disclose the additional limitations of currently amended Claim 19. Applicant's Arguments, p. 11. The examiner again respectfully disagrees. Applicant should note that Claim 19 has been objected to above

because of ambiguity. Applicant should also note that Claim 19 is rejected as being anticipated by Aarras under §102, but that Claim 19 has also been alternatively rejected under §103 above as being obvious in light of Aarras and Moscovitch. In regards to the §102 rejection, it is the examiner's opinion that the Aarras reference teaches, to a person having ordinary skill in the art of portable electronics, a portable computer that has the ability, through the use of a sensor 46, to vary the image displayed on a display 30 or 32 based on the rotation of a display component 12 in relation to a base 14. It is also inherent that there must be some threshold rotation limit that triggered the sensor 46 to initiate the computer controller 24 to change the image on the display 30, 32. Also, Aarras clearly discloses that, for instance, display 32 is shown in a first configuration in Figure 1 and rotated 180 degrees to a second configuration in Figure 2, wherein in order for the image on the display 32 to be readable by a user the image must be inverted. Aarras, paras 0038, 0048 and 0049. For this reason, it is opined that the Aarras reference alone teaches all of the claimed limitations of currently amended Claim 19.

41. Applicant further argues that Aarras fails to disclose the additional limitations of currently amended Claim 21. Applicant's Arguments, p. 12. The examiner again respectfully disagrees. Similar to the arguments relating to Claim 19 above, applicant should note that Claim 21 is rejected as being anticipated by Aarras under §102, but that Claim 21 has also been alternatively rejected under §103 above as being obvious in light of Aarras and Moscovitch. In regards to the §102 rejection, it is the examiner's opinion that the Aarras reference teaches, to a person having ordinary skill in the art of

portable electronics, a portable computer that has the ability, through the use of a sensor 46, to vary the image displayed on a display 30 or 32 based on the rotation of a display component 12 in relation to a base 14. It is also inherent that there must be some threshold rotation limit that triggered the sensor 46 to initiate the computer controller 24 to change the image on the display 30, 32. Also, Aarras clearly discloses that, for instance, display 32 is shown in a first configuration in Figure 1 and rotated 180 degrees to a second configuration in Figure 2, wherein in order for the image on the display 32 to be readable by a user the image must be inverted. Aarras, paras 0038, 0048 and 0049. For this reason, it is opined that the Aarras reference alone teaches all of the claimed limitations of currently amended Claim 21.

42. Applicant further argues that Rebeske discloses "a foot" as claimed in Claim 11. Applicant's Arguments, pp. 12-13. The again respectfully disagrees. The applicant is reminded that the claims must be given their "broadest reasonable interpretation." See MPEP §2111. Rebeske clearly discloses a computer with a display component 34 and a base 35 that is configurable in an easel mode (Rebeske, Figure 1) and is stabilized with a foot 42 that is disposed along a portion of the base 35. Applicant argues that the foot 42 is not a foot but is only "a protective top". It is true that the foot 42 in Rebeske is referred to as a protective top and provides added protection to the display component 34 and base 35, but that does not mean that it is not also a foot. The foot 42 is clearly utilized in Rebeske as a device for keeping the portable computer stable while the computer is in the easel configuration as shown in Figure 1. Therefore, because the foot 42 functions as a stabilizer for the computer while it is in the easel mode, it is a

"foot" as perceived by a person having ordinary skill in the art of portable electronics.

For these reasons the rejection to Claim 11 is maintained.

***Allowable Subject Matter***

43. Claim 12 is allowed.

44. The following is a statement of reasons for the indication of allowable subject matter. The specific limitations of "means for rotating the display component in a single direction relative to the base to configure the portable computer between a laptop mode and an easel mode" in Claim 12 is not anticipated or made obvious by the prior art of record in the examiner's opinion. Note that this "means for" clause invokes §112, sixth paragraph. See, supra, pp. 1-2.

45. For example, Aarras (US Publication 2006/0264243) discloses a portable computer (See id. at para 0033) comprising: a base 14; a display component 12 rotatably coupled to the base 14; and a hinge assembly 16 rotating the component 12 in a single direction relative to the base 14 to configure the computer between a laptop mode (Figure 2) and an easel mode (Figure 3). See also, id. at para 0039 (disclosing a simpler hinge type that has a single axis of rotation). Aarras also discloses a display orientation module (i.e. controller 24) configured to automatically orient content displayed on the display component 12 responsive to at least a transition (i.e. movement between modes as shown in Figures 1-3) between a laptop mode (Figure 2) and an easel mode (Figure 1 or Figure 3), wherein the module 24 is configured to orient the content displayed between a first display orientation and a second display orientation, the first and second display orientations being 180 degrees relative to each

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other (See Aarras, paras 0038, 0048, 0049); and a means for detecting (i.e. sensor 46) an orientation of the base 14 relative the display component 12, wherein the sensor 46 is further configured to identify the transition between the laptop mode and the easel mode base on a stored threshold orientation (i.e. it is inherent that there is a threshold point where the sensor will detect rotation and switch between one image signal and another image signal). "The sensor 46 is coupled to the controller 24. The controller 24 is adapted to change an image displayed on at least one of the displays 30, 32 based, at least partially, upon a signal from the sensor 46 [within the hinge 16] that the [display component and base] 12, 14 have been moved relative to each other, such as moved from a first folded configuration to second folded configuration, and vice versa. ... [T]he sensor 46 can also signal if that movement is a forward flipping movement ... or a reverse flipping movement." Id. at para 0038. Aarras also discloses that there can be displays on both sides of a component/base. Id. at paras 0048-0049. And further discloses that an image can be configured based on the position of the display (i.e. what mode the device is in) to be viewed from a first orientation or from a second orientation 180 degrees relative the first orientation. Id. at para 0049 ("A physical embodiment can comprise sections able to turn completely around; reminiscent to a paper note book ..."). **However**, Aarras does not disclose a hinge assembly with a shaft, springs, member and bracket like that disclosed in applicant's specification paragraphs 0067-0068 and Figures 7a-10.

***Conclusion***

46. The Applicant should note that the Examiner has discovered prior art since the mailing of Examiner's first Office Action that is considered pertinent to applicant's disclosure. The references cited on the PTO 892 Form attached disclose a device that is similar to applicant's claimed invention.

47. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

48. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

49. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADRIAN S. WILSON whose telephone number is (571)270-3907. The examiner can normally be reached on Mon.-Thu. 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayprakash Gandhi can be reached on (571) 272-3740. The fax phone



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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Adrian S Wilson  
Examiner  
Art Unit 2835

Asw

/Jayprakash N Gandhi/  
Supervisory Patent Examiner, Art Unit 2835

<b>Notice of References Cited</b>	Application/Control No. 12/170,939	Applicant(s)/Patent Under Reexamination BEHAR ET AL.	
	Examiner ADRIAN S. WILSON	Art Unit 2835	Page 1 of 1

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	H US-			
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	J US-			
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	L US-			
	M US-			

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*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N				
	O				
	P				
	Q				
	R				
	S				
	T				

**NON-PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)				
	U				
	V				
	W				
	X				

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

## EAST Search History

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
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S9	234059	laptop or "notebook computer" or "portable computer"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:31
S10	4561	S7 same S8	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:31
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S25	335773	laptop or "portable electronic device" or "notebook computer" or cellphone or "mobile phone"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:59
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S28	2865631	rotate or rotatable or rotating	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 18:59

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S32	1	12/170939.app.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2011/01/19 20:40

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939
	Filing Date		2008-07-10
	First Named Inventor	Yves Behar	
	Art Unit	2835	
	Examiner Name	Adrian S. Wilson	
	Attorney Docket Number	L2039-700110	

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Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	
/A.W./ ↓	1	6661426	B1	2003-12-09	Jetha		
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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number		12170939
Filing Date		2008-07-10
First Named Inventor	Yves Behar	
Art Unit	2835	
Examiner Name	Adrian S. Wilson	
Attorney Docket Number	L2039-700110	

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**INFORMATION DISCLOSURE  
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First Named Inventor	Yves Behar	
Art Unit	2835	
Examiner Name	Adrian S. Wilson	
Attorney Docket Number	L2039-700110	

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	26	D495694		2004-09-07	Chase	
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	30	6464195		2002-10-15	Hildebrandt	

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

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Examiner Name	Adrian S. Wilson	
Attorney Docket Number		L2039-700110

/A.W./	31	6642909		2003-11-04	Oliva	
↓	32	6665175		2003-12-16	deBoer	
↓	33	D535292		2007-01-16	Shi	
↓	34	D395868		1998-07-07	lino	
↓	35	D452238		2001-12-18	Sugano	
↓	36	D463797		2002-10-01	Andre	
↓	37	D476326		2003-06-24	Tanimura	
↓	38	D491177		2004-06-24	Andre	
↓	39	D494162		2004-08-10	Kondo	
↓	40	D513509		2006-01-10	Kawa	
↓	41	D516552		2006-03-07	Iseki	

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939	
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	Art Unit		2835	
	Examiner Name	Adrian S. Wilson		
	Attorney Docket Number		L2039-700110	

/A.W./	42	D523429		2006-06-20	Lin	
↓	43	6067224		2000-05-23	Nobuchi	
↓	44	D491936		2004-06-22	Jao	

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**U.S.PATENT APPLICATION PUBLICATIONS**

Examiner Initial*	Cite No	Publication Number	Kind Code <sup>1</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
/A.W./	1	20050210399	A1	2005-09-22	Filner	
↓	2	20050257400	A1	2005-11-24	Sommerer	
↓	3	20100174993	A1	2010-07-08	Pennington	
↓	4	20030109232	A1	2003-06-12	Park	
↓	5	20040203535	A1	2004-10-14	Kim	
↓	6	20050282596	A1	2005-12-22	Park	

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number		12170939
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First Named Inventor	Yves Behar	
Art Unit	2835	
Examiner Name	Adrian S. Wilson	
Attorney Docket Number	L2039-700110	

/A.W./	7	20050018396		2005-01-27	Nakajima	
	8	20050041378		2005-02-24	Hamada	
	9	20030048595		2003-03-13	Hsieh	
	10	20040228076		2004-11-18	Clapper	
	11	20050063145		2005-03-24	Homer	
	12	20050128695		2005-06-16	Han	
	13	20050018396		2005-01-27	Nakajima	
	14	20050041378		2005-02-24	Hamada	
	15	20070182663		2007-08-09	Biech	
	16	20090244012		2009-10-01	Behar	
	17	20090322790		2009-12-31	Behar	

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939	
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**FOREIGN PATENT DOCUMENTS**

Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup> j	Kind Code <sup>4</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
/A.W./	1	EP0588210	EP		1993-03-23	Hitachi		<input type="checkbox"/>
/A.W./	2	DE19952486	DE		2001-05-03	Schweizer		<input type="checkbox"/>

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**NON-PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>5</sup>
	1		<input type="checkbox"/>


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**EXAMINER SIGNATURE**

Examiner Signature	/Adrian Wilson/	Date Considered	01/19/2011
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<sup>1</sup> See Kind Codes of USPTO Patent Documents at [www.USPTO.GOV](http://www.USPTO.GOV) or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.

<b><i>Index of Claims</i></b>  	<b>Application/Control No.</b> 12170939	<b>Applicant(s)/Patent Under Reexamination</b> BEHAR ET AL.
	<b>Examiner</b> ADRIAN S WILSON	<b>Art Unit</b> 2835

✓	<b>Rejected</b>
=	<b>Allowed</b>

-	<b>Cancelled</b>
÷	<b>Restricted</b>


N	<b>Non-Elected</b>
I	<b>Interference</b>

A	<b>Appeal</b>
O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE							
Final	Original	07/01/2010	01/20/2011						
	1	✓	✓						
	2	✓	✓						
	3	✓	✓						
	4	✓	✓						
	5	✓	✓						
	6	✓	✓						
	7	✓	✓						
	8	✓	✓						
	9	✓	✓						
	10	✓	-						
	11	✓	✓						
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	20	✓	✓						
	21	✓	✓						
	22		✓						
	23		✓						
	24		✓						
	25		✓						



<b>Search Notes</b>  	<b>Application/Control No.</b>  12170939	<b>Applicant(s)/Patent Under Reexamination</b>  BEHAR ET AL.
	<b>Examiner</b>  ADRIAN S WILSON	<b>Art Unit</b>  2835

**SEARCHED**

Class	Subclass	Date	Examiner
361/679	679.21, 679.26, 679.27	07/01/2010	asw
455	575.1-575.4	07/01/2010	asw
345	168	07/01/2010	asw
361	679.21, 679.26, 679.27	1/20/2011	asw
455	575.1-575.4	1/20/2011	asw
345	168	1/20/2011	asw

**SEARCH NOTES**

Search Notes	Date	Examiner
inventor and assignee search	07/01/2010	asw
East Search	07/01/2010	asw
Updated East Search	1/20/2011	asw

**INTERFERENCE SEARCH**

Class	Subclass	Date	Examiner

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939
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	Examiner Name	Adrian S. Wilson	
	Attorney Docket Number	L2039-700110	

U.S. PATENTS							Remove
Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	
	1	6661426	B1	2003-12-09	Jetha		
	2	D593085		2008-03-12	Behar		
	3	D593091		2008-03-13	Behar		
	4	D593086		2008-07-15	Behar		
	5	D605635		2009-04-06	Edahiro		
	6	D333636	S	1993-03-02	Issa		
	7	5515345	A	1996-05-07	Barreira		
	8	D392944	S	1998-03-31	Issa		

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	9	D462069	S	2002-08-27	Gatto	
	10	D479708	S	2003-09-16	Hwang	
	11	D495674	S	2004-09-07	Yoo	
	12	D528993	S	2006-09-26	Wilson	
	13	D544846	S	2007-06-19	Kindle	
	14	D581371	S	2008-11-12	Richmond	
	15	7522946	B2	2009-04-21	Im	
	16	D391927		1998-03-10	Faranda	
	17	D491177		2004-06-08	Andre	
	18	D491936		2004-06-22	Jao	
	19	D504128		2005-04-19	Maskatia	

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	20	D512997		2005-12-20	Lee	
	21	D517541		2006-03-21	Maskatia	
	22	D518042		2006-03-28	Kanayama	
	23	D534531		2007-01-02	Ogasawara	
	24	5793355		1998-08-11	Youens	
	25	D399526		1998-10-13	Brady	
	26	D495694		2004-09-07	Chase	
	27	D528541		2006-09-19	Maskatia	
	28	5712760		1998-01-27	Coulon	
	29	5547698		1998-12-08	Reavey	
	30	6464195		2002-10-15	Hildebrandt	

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	37	D476326		2003-06-24	Tanimura	
	38	D491177		2004-06-24	Andre	
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	40	D513509		2006-01-10	Kawa	
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	43	6067224		2000-05-23	Nobuchi	
	44	D491936		2004-06-22	Jao	

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	2	20050257400	A1	2005-11-24	Sommerer	
	3	20100174993	A1	2010-07-08	Pennington	
	4	20030109232	A1	2003-06-12	Park	
	5	20040203535	A1	2004-10-14	Kim	
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	9	20030048595		2003-03-13	Hsieh	
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	17	20090322790		2009-12-31	Behar	

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	1	EP0588210	EP		1993-03-23	Hitachi		<input type="checkbox"/>
	2	DE19952486	DE		2001-05-03	Schweizer		<input type="checkbox"/>

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	1		<input type="checkbox"/>

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	Examiner Name	Adrian S. Wilson	
	Attorney Docket Number		L2039-700110

**CERTIFICATION STATEMENT**

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

**OR**

That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

None

**SIGNATURE**

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Matthew H. Grady/	Date (YYYY-MM-DD)	2010-11-03
Name/Print	Matthew H. Grady	Registration Number	52957

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Yves Behar  
Serial No: 12/170,939  
Confirmation No: 1986  
Filed: July 10, 2008  
For: PORTABLE COMPUTER WITH MULTIPLE DISPLAY  
CONFIGURATIONS

Examiner: WILSON, ADRIAN S  
Art Unit: 2835

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**CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. §1.8(a)**

The undersigned hereby certifies that this document is being electronically filed in accordance with 37 C.F.R. § 1.6(a)(4), on the 3<sup>rd</sup> day of November, 2010.

/Matthew H. Grady/  
Matthew H. Grady, Reg. No. 52,957

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MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**AMENDMENT**

Sir:

In response to the Office Action mailed July 9, 2010, please amend the above-identified application as follows. Changes to the Claims are shown by strike through (for deleted matter) and underlining (for added matter).

**Amendments to the Claims** are reflected in the listing of claims which begins on page 2 of this paper.

**Remarks** begin on page 8 of this paper.

**Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Currently Amended) A portable computer configurable between a plurality of display modes including a closed mode, a laptop mode and an easel mode, the portable computer comprising:
  - a display component including a display screen;
  - a base;
  - a hinge assembly at least partially housed within the base and configured to pivotably couple the display component to the base;
  - wherein the display component and the base are is rotatable about a longitudinal axis running along an interface between the display component and the base;
  - wherein, in the closed mode, the display screen is disposed substantially against the base;
  - wherein rotating the display component about the longitudinal axis up to approximately 180 degrees from the closed mode configures the portable computer into the laptop mode; and
  - wherein rotating the display component about the longitudinal axis beyond approximately 180 degrees from the closed mode configures the portable computer into the easel mode.
2. (Original) The portable computer of claim 1, wherein the display component is rotatable about the longitudinal axis up to approximately 320 degrees from the closed mode.
3. (Original) The portable computer of claim 1, further comprising a display orientation module that displays content on the display screen in one of a plurality of orientations relative to the longitudinal axis.
4. (Original) The portable computer of claim 3, further comprising a mode sensor which detects a current display mode of the portable computer; and

700026.2

wherein the display orientation module displays content on the display screen in an orientation dependent on the current display mode detected by the mode sensor.

5. (Original) The portable computer of claim 3, wherein the display orientation module is configured to display the content in a first orientation relative to the longitudinal axis when the portable computer is configured into the laptop mode and in a second orientation relative to the longitudinal axis when the portable computer is configured into the easel mode.

6. (Original) The portable computer of claim 5, wherein the second orientation is 180 degrees relative to the first orientation.

7. (Original) The portable computer of claim 3, wherein the plurality of display modes further comprises a flat mode in which the display component is disposed at an angle of approximately 180 degrees, measured about the longitudinal axis, relative to the base.

8. (Original) The portable computer of claim 7, wherein the plurality of orientations comprises a first orientation relative to the longitudinal axis, a second orientation relative to the longitudinal axis, and a third orientation relative to the longitudinal axis; and

wherein, in the flat mode, the orientation of the content displayed on the display screen is configurable among the first, second and third orientations responsive to a user input.

9. (Original) The portable computer of claim 8, wherein the second orientation is 90 degrees relative to the first orientation; and

wherein the third orientation is 180 degrees relative to the first orientation.

10. (Cancelled)

11. (Original) The portable computer of claim 1, further comprising:

a foot disposed along at least a portion of the base and configured to support the portable computer when in the easel mode.

12. (Currently Amended) A portable computer comprising:  
a base;  
a display component rotatably coupled to the base; ~~and~~  
means for rotating the display component in a single direction relative to the base to configure the portable computer between a laptop mode and an easel mode;  
a display orientation module configured to automatically orient content displayed on the display component responsive to at least a transition between the laptop mode and the easel mode, wherein the display orientation module is further configured to orient the content displayed between a first display orientation and a second display orientation, the first and second display orientations being 180 degrees relative to each other; and  
means for detecting an orientation of the base relative to the display component, wherein the means for detecting is further configured to identify the transition between the laptop mode and the easel mode based on a stored threshold orientation.
13. (Currently Amended) A portable computer configurable between a laptop mode and an easel mode, the portable computer comprising:  
a display component;  
a base; and  
a hinge assembly configured to rotatably couple the display component to the base,  
wherein the hinge assembly is at least partially housed within the base;  
wherein the hinge assembly is configured to permit rotation of the display component about a single axis to configure the portable computer between the laptop mode and the easel mode.
14. (Original) The portable computer of claim 13, wherein the single axis is a longitudinal axis running along an interface between the display component and the base.
15. (Original) The portable computer of claim 14, wherein the display component comprises a display screen configured to display content and a display orientation module configured to control an orientation of the content displayed on the display screen;  
wherein the orientation of the content displayed on the display screen is configurable among a plurality of orientations relative to the longitudinal axis.

16. (Original) The portable computer of claim 15, wherein the plurality of orientations comprises a first orientation relative to the longitudinal axis and a second orientation relative to the longitudinal axis; and

wherein when display orientation module is configured to automatically display the content in the first orientation when the portable computer is configured into the laptop mode and in the second orientation when the portable computer is configured into the easel mode.

17. (Currently Amended) The portable computer of claim 16, wherein the second orientation is ~~90~~ 180 degrees relative to the first orientation; and

wherein the plurality of orientations further comprises a third orientation relative to the longitudinal axis, the third orientation, wherein the third orientation is ~~180~~ 90 degrees relative to the first orientation.

18. (Original) The portable computer of claim 15, further comprising a mode sensor configured to provide information representative of a degree of rotation of the display component relative to the base; and

wherein the display orientation module is configured to automatically adjust the orientation of the content displayed on the display screen responsive to the information from the mode sensor.

19. (Currently Amended) A method of automatically orienting content displayed on a portable computer, the method comprising:

rotating a display component of the portable computer about a longitudinal axis running along an interface between the display component and a base of the portable computer;

detecting a degree of rotation of the display component relative to the base;

providing a signal representative of the degree of rotation of the display component;

comparing the degree of rotation with respect to a threshold degree of rotation; and

automatically configuring an orientation, relative to the longitudinal axis, of the content displayed on the portable computer responsive to the signal wherein the act of automatically configuring includes acts of:

displaying a first orientation of the content for the degree of rotation that is less than the threshold degree of rotation, and  
displaying a second orientation of the content for the degree of rotation that is greater than the threshold degree of rotation, the second orientation being at 180 degrees relative to the first orientation.

20. (Currently Amended) The method of claim 19, wherein automatically configuring the orientation of the content includes:

displaying the content in a first orientation relative to the longitudinal axis responsive to the signal indicating that the degree of rotation of the display component is less than the threshold rotation of approximately 180 degrees relative to the base; and

displaying the content in a second orientation relative to the longitudinal axis responsive to the signal indicating that the degree of rotation of the display component is greater than the threshold rotation of approximately 180 degrees relative to the base, the second orientation being at 180 degrees relative to the first orientation.

21. (Currently Amended) A portable computer comprising:

a base unit;

a display unit including a display screen configured to display content;

an orientation sensor which detects an orientation of the display unit relative to the base unit; and

a display orientation module which orients the content displayed on the display screen responsive to the orientation detected by the orientation sensor between at least a first display orientation and a second display orientation, the second display orientation being 180 degrees relative to the first display orientation;

wherein the display orientation module is further configured to detect a change between a laptop mode and an easel mode based on the detected orientation, and wherein the display orientation module is further configured to trigger a display inversion from one of the first and second display orientations to the other of the first and second display orientation responsive to the orientation sensor detecting the change between the laptop mode and the easel mode.



22. (New) The portable computer of claim 13, wherein the hinge assembly is further configured to permit rotation of the base component about the single axis.

23. (New) The portable computer of claim 16, wherein the second orientation is 180 degrees relative to the first orientation.

24. (New) The portable computer of claim 21, wherein the orientation sensor includes an accelerometer.

25. (New) The portable computer of claim 24, the orientation sensor is configured to detect an angle of the base relative to the display unit.

**REMARKS**

Claims 1-21 were previously pending in this application. Claims 1, 12, 13, 17, and 19-21 have been amended herein. New claims 22-25 have been added. Claim 10 has been cancelled without prejudice or disclaimer. As a result claims 1-9 and 11-25 are pending for examination with claims 1, 12, 13, 19, and 21 being independent claims. No new matter has been added.

**Rejections Under 35 U.S.C. §102**

Claims 1-10 and 12-21 stand rejected under 35 U.S.C. §102(b) as being anticipated by United States Patent Application Publication No. 2006/0264243 to Aarras (hereinafter Aarras). In response, Applicant has amended the claims to further describe the Applicant's contribution to the art and to further distinguish over Arras.

Aarras discusses "a portable electronic device ... including a first section having a first display on a first side of the first section; and a second section pivotably connected to the first section." (Para. 0007). As described, the portable electronic device is configured with a "cover section pivotably movable relative to a base section, wherein at least one of the cover section and base section comprise a display; displaying a first one of the images on the display; and moving the cover and base sections relative to each other." (Para. 0010). According to Aarras, a "second different one of the images is automatically displayed on the first display or a second display based upon the movement of the cover and base sections relative to each other." (Para. 0010). Aarras discloses that a "connection section 16 preferably comprises a sensor 46 to sense when the first and second sections are moved relative to each other." (Para. 0038). As discussed, the "sensor 46 is coupled to the controller 24" and the "controller 24 is adapted to change an image displayed on at least one of the displays 30, 32 based, at least partially, upon a signal from the sensor 46 that the first and second sections 12, 14 have been moved relative to each other, such as moved from the first folded configuration to the second folded configuration, and visa versa." (Para. 0038).

Aarras further recites that an advantage of the device, includes the "ability of changing of the application views between the displays on the basis of the movement of the hinge or sections 12, 14 relative to each other." (Para. 0047). As Aarras describes, "[i]t basically presents a book metaphor for an electronic device user interface (UI)." (Para. 0047). Aarras discloses that the device "can provide the advantages of intuitive and easy switching between applications and views." (Para. 0047). According to Aarras, "[t]he user can jump back and forth between pages

(and/or applications or modes) merely by flipping the sections 12, 14 back and forth.” (Para. 0044).

In summary, Aarras is directed to a portable electronic device that permits the device sections to be flipped like pages of a book via a bi-axial hinge section 16. (Please see para. 0007, 10, 44, 47, and Figs. 1-3). The hinge/connection section can include a rotatable section to allow the two sections to be rotated 180° perpendicular to the path of rotation of sections 12 and 14. (See para. 0039).

Aarras does not anticipate claim 1, as amended. In particular, Aarras does not teach or suggest “the display component *and* the base are rotatable about a longitudinal axis running along an interface between the display component and the base,” as recited in claim 1, as amended. Rather, Aarras teaches a dual axis hinge about which the two sections of the portable electronic device rotate. (Please see Figs. 1-3, section 16, and related description – e.g. Para. 0007, 10, 44, and 47).

The Office Action also states that Aarras teaches a simpler hinge type that has a single axis of rotation (see Office Action, p. 2, para. 4); however, the single axis pivot permits rotation of the two sections in a direction perpendicular to the flipping of the two sections of the portable device. (Para. 0039). Thus, the disclosed simpler single axis hinge cannot read on the “display component and the base” “rotatable about a longitudinal axis running along an interface between the display component and the base, wherein rotating the display component about the longitudinal axis up to approximately 180 degrees from the closed mode configures the portable computer into the laptop mode, and wherein rotating the display component about the longitudinal axis beyond approximately 180 degrees from the closed mode configures the portable computer into the easel mode,” as recited in claim 1, because the axis of rotation of the simpler single axis hinge would operate perpendicular to the claimed rotation.

Accordingly withdrawal of the rejection of claim 1 is respectfully requested. As claims 2-9 depend from claim 1, they are allowable for at least the same reasons as is claim 1, and withdrawal of the rejection of claims 2-9 is respectfully requested.

#### Independent Claim 12

Independent claim 12 recites “means for,” thus presumptively invoking 35 U.S.C. §112(6). This presumption may only be overcome by the Examiner finding sufficient structure

in the claims themselves to overcome the presumption. (Please see M.P.E.P. §2181). “Where a claim limitation meets the 3-prong analysis and is being treated under 35 U.S.C. 112, sixth paragraph, the examiner will include a statement in the Office action that the claim limitation is being treated under 35 U.S.C. 112, sixth paragraph.” M.P.E.P. §2181.I.

In the Office Action, the Examiner has failed to indicate that claim 12 has been interpreted under 35 U.S.C. § 112(6). Applicant respectfully submits that the Examiner has not established a prima facie showing of anticipation, as is required, with respect to claim 12. In particular, the Examiner has not identified the structure(s) in the specification that corresponds to the means plus function element recited in claim 12, nor the corresponding structure(s) in the Aarras reference that would anticipate or render obvious *the identified structure*. Accordingly, withdrawal of the rejection is respectfully requested.

Further, Aarras does not anticipate claim 12, as amended. In particular, Aarras does not teach or suggest “a display orientation module which automatically orients the content displayed on the display component responsive to at least a transition between the laptop mode and the easel mode, wherein the display orientation module is further configured to orient the content displayed between at least a first display orientation and a second display orientation, wherein the first and second display orientations are 180 degrees relative to each other,” as recited in claim 12, as amended. Rather, Aarras discloses changing a display orientation from a first portrait type orientation to a second landscape type orientation in response to a second portion 94 of section 90 changing orientation from a first position to a second position relative to the first portion 92 of the same section 90. (See para. 0059). Thus, the positional/orientation change is 90 degrees (portrait to landscape) and not 180 degrees as claimed.

Accordingly withdrawal of the rejection of claim 12 is respectfully requested.

#### Independent Claim 13

Aarras does not anticipate claim 13. In particular, Aarras does not teach or suggest the “hinge assembly is configured to permit rotation of the display component about a single axis to configure the portable computer between the laptop mode and the easel mode,” as recited in claim 13, as amended. As discussed above with respect to claim 1, Aarras is directed to a portable electronic device that permits the device sections to be flipped like pages of a book via a dual axis hinge 16. (Please see para. 0007, 10, 44, 47, and Figs. 1-3). The hinge 16 in Aarras employs a dual axis hinge, and therefore cannot teach or suggest the claimed rotation about a

“single axis to configure the portable computer between the laptop mode and the easel mode.” Further, the “simple hinge” identified in the Office Action does not anticipate rotation about a “single axis to configure the portable computer between the laptop mode and the easel mode,” as recited. Rather, the two sections can be “rotated 180° relative to each other orthogonal to the path of rotation illustrated in FIGS. 1-3.” (See Para. 0039). As Aarras discloses a dual axis hinge and a simple hinge that rotates “orthogonal to the path of rotation illustrated in FIGS. 1-3,” neither structure anticipates the “hinge assembly is configured to permit rotation of the display component about a single axis to configure the portable computer between the laptop mode and the easel mode,” as recited in claim 13, because the dual axis hinge does not disclose rotation about “a single axis,” and the simple hinge disclosed provides for rotation of the sections perpendicular to the claimed rotation.

Accordingly, withdrawal of the rejection of claim 13 is respectfully requested. As claims 14-18 depend from claim 13, they are allowable for at least the same reasons and withdrawal of the rejection of claims 14-18 is respectfully requested.

#### Independent Claim 19

Aarras does not anticipate claim 19, as amended. In particular, Aarras does not teach or suggest “automatically configuring an orientation, relative to the longitudinal axis, of the content displayed on the portable computer responsive to the signal wherein the act of automatically configuring includes acts of displaying a first orientation of the content for the degree of rotation that is less than the threshold degree of rotation, and displaying a second orientation of the content for the degree of rotation that is greater than the threshold degree of rotation, the second orientation being at 180 degrees relative to the first orientation,” as recited in claim 19, as amended. Rather, Aarras teaches changing a display orientation from a first portrait type orientation to a second landscape type orientation in response to a second portion 94 of section 90 changing orientation from a first position to a second position relative to the first portion 92 of the same section 90. (See para. 0059). Thus, the positional/orientation change is 90 degrees and not 180 degrees as claimed.

Accordingly, withdrawal of the rejection of claim 19 is respectfully requested. As claim 20 depends from claim 19, it is allowable for at least the same reasons and withdrawal of the rejection of claim 20 is respectfully requested.

Independent Claim 21

Aarras does not anticipate claim 21, as amended. In particular, Aarras does not teach or suggest “a display orientation module which orients the content displayed on the display screen responsive to the orientation detected by the orientation sensor between at least a first display orientation and a second display orientation, wherein the second display orientation is 180 degrees relative to the first display orientation, and wherein the display orientation module is further configured to detect a change between a laptop mode and an easel mode based on the detected orientation, wherein the display orientation module is further configured to trigger a display inversion from one of the first and second display orientations to the other of the first and second display orientation,” as recited in claim 21, as amended. Rather, Aarras teaches changing a display orientation from a first portrait type orientation to a second landscape type orientation in response to a second portion 94 of section 90 changing orientation from a first position to a second position relative to the first portion 92 of the same section 90. (See para. 0059). Thus, the positional/orientation change is 90 degrees (portrait to landscape) and not 180 degrees as claimed.

Further, the change in display orientation is not responsive to a detected “orientation of the display unit relative to the base unit,” rather the orientation change is responsive to the rotation of one portion 92 of one section 90 relative to a second portion 94 of the same section 90. Therefore, Aarras does not disclose the claimed display orientation module. In view of the foregoing, withdrawal of the rejection of claim 21 is respectfully requested.

Rejections Under 35 U.S.C. §103

Claim 11 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Aarras in view of U.S. Patent No. 6,295,038 to Rebeske (hereinafter Rebeske).

Claim 11 depends from independent claim 1. As discussed above, Aarras does not disclose or suggest several limitations recited in claim 1. Applicant does not concede that the combination of Aarras and Rebeske proposed in the Office Action is proper, and reserves the right to traverse the combination in the future. However, even considered in combination as proposed in the Office Action, Rebeske fails to cure the deficiencies of Aarras.

Rebeske is directed to a laptop computer that includes a second display screen hingedly secured to a first display screen that is also connected to the computer components with the computer case. (See Abstract). The second display screen permits an operator and an observer

to observe the same information viewable on the first and second display screens, respectively. (Abstract).

The Office Action alleges that “Rebeske discloses a computer with a display component [sic] 30 and a base 35 is configurable in an easel mode disposed along a portion of the base 35.” (Office Action, p. 6, para. 23). Contrary to the allegations in the Office Action, Rebeske discloses a first display screen 30 and a second display screen 35 that is hinged to the first display. (Col. 2, lns 37-45). The Office Action alleges these display screens are a display and a base that are “stabilized with a foot 42.” Rebeske teaches that 42 is “a protective top 42” “hinged to the case that can then be pivoted.” (Col. 3, lns 41-45). Thus, Rebeske does not disclose “a foot disposed along at least a portion of the base and configured to support the portable computer when in the easel mode,” as recited in claim 11, and the combination does not teach or suggest each and every limitation recited in claim 11.

Further, Rebeske does not cure the deficiencies discussed above with respect to claim 1, from which claim 11 depends. Aarras teaches a dual axis hinge between two rotatable sections, and Rebeske teaches a laptop computer having a computer case 60 coupled to a first display screen 30, wherein the first display is coupled to a second display screen 35. Thus, neither Rebeske nor Aarras teaches “the display component and the base are rotatable about a longitudinal axis running along an interface between the display component and the base, wherein rotating the display component about the longitudinal axis up to approximately 180 degrees from the closed mode configures the portable computer into the laptop mode, and wherein rotating the display component about the longitudinal axis beyond approximately 180 degrees from the closed mode configures the portable computer into the easel mode,” as recited in claim 1, as amended, as neither reference teaches claimed rotation about the longitudinal axis. Accordingly, withdrawal of the rejection of claim 11 is respectfully requested.

#### Newly Added Claims

New claims 22-25 have been added to further define Applicant’s contribution to the art. New claims 22-25 are supported by the specification as originally filed. With respect to claim 22 please see, for example, Figs. 1, and 8-10, showing the hinge and the hinge assembly. Claim 23 is supported, for example, by original claim 6. Claim 24 is supported, for example, at page 12, lines 15-26. Claim 25 is supported, for example, at page 13 lines 4-6. No new matter has been added.

Claims 22-23 depend from claim 13 and claims 24-25 depend from claim 21. Each of claims 22-25 is therefore allowable for at least the same reasons as its respective base claim.

### **CONCLUSION**

In view of the foregoing amendments and remarks, reconsideration is respectfully requested. This application should now be in condition for allowance; a notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an accompanying payment, please charge any deficiency to Deposit Account No. 50/2762.

Respectfully submitted,  
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Docket No.: L2039-700110

Date: November 3, 2010





Europäisches Patentamt  
European Patent Office  
Office européen des brevets



Publication number: **0 588 210 A1**

⑫

**EUROPEAN PATENT APPLICATION**

⑴ Application number: **93114327.5**

⑸ Int. Cl.<sup>5</sup>: **H04M 1/02**

⑵ Date of filing: **07.09.93**

⑶ Priority: **08.09.92 JP 239735/92**

⑷ Date of publication of application:  
**23.03.94 Bulletin 94/12**

⑹ Designated Contracting States:  
**DE FR GB**

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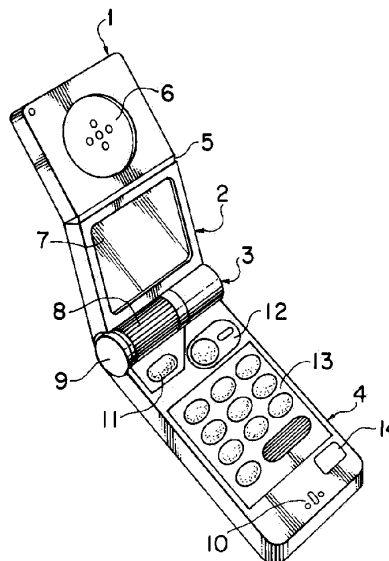
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⑬ **Portable radio telephone set.**

⑮ A portable radio telephone set provided with a display section includes a rotary selector which turns to select various functions. A menu displayed on the display section is selected by the rotary selector during a non-conversation time and the sound volume can be adjusted during a conversation time. The adjusting operation can be performed from both the front and rear sides of the telephone set. The rotary selector and button keys are arranged within the operation range of the thumb, and ordinary dial functions performed by operating these rotary selector and button keys are provided.

**FIG. 1**



**EP 0 588 210 A1**

## BACKGROUND OF THE INVENTION

## Field of the Invention:

The present invention relates to a portable radio terminal and, more particularly, to a portable radio telephone set having a folding and housing control mechanism and a rotary selector for selecting various functions provided in a hinge section for folding and housing purpose.

## Description of the Related Art:

Conventional portable radio telephone sets (hereinafter referred to simply as telephone sets) are not only provided with ordinary telephone functions, but also an electronic telephone directory function by which telephone numbers and names can be registered, a help function for guiding various functions, an incoming call tone selection function for selecting incoming call tone, and the like, thus being formed as a multi-functional terminal. The conventional portable radio telephone set uses function buttons in order to select such functions. The operation of some terminals has been made easier by making the shape of function buttons different from that of dial buttons.

When, for example, the electronic telephone directory function is used, first a telephone set user operates a function button for the electronic telephone directory function in order to call a telephone number stored in the electronic telephone directory on a display section of the portable radio telephone set. Then, the telephone set user operates a function button for selecting the telephone number and a function button for scrolling the registered telephone numbers in order to call the wanted telephone number on the display section from among telephone numbers registered in the electronic telephone directory. When the wanted telephone number is confirmed on the display section by the above operation, the user operates a function button for starting a conversation in order to call the other party.

Though the conventional portable radio telephone set is multi-functional, the operation procedure thereof is complex for a user when the series of operations described above is considered. Furthermore, there is the possibility that the greater the number of buttons, the greater the chances that a button may be depressed erroneously when the button arrangement of a present portable radio telephone set is considered.

That is, in view of the complexity of such an operation procedure, it is not said easy, as regards a conventional telephone set in which functions are selected by function buttons, to operate various buttons with only one hand while holding the tele-

phone set itself in the same hand.

## SUMMARY OF THE INVENTION

5 It is an object of the present invention to provide a telephone set which makes it possible to easily perform various operations required particularly for conducting a radio conversation with one hand while the telephone set itself is being held by the same hand.

10 It is another object of the present invention to simplify the procedure for selecting or operating a plurality of functions of the telephone set.

15 It is still another object of the present invention to provide a multi-functional telephone set, the number of buttons thereof being reduced as much as possible.

20 To achieve the above-described objects, a portable radio telephone set in accordance with the present invention is provided, which portable radio telephone set has a display section, comprising a rotary selector which turns to select various functions. A menu of various functions displayed on the display section is selected when the rotary selector is during a non-conversation time, sound volume can be adjusted during a conversation time, the adjusting operation can be performed from both the front and rear sides of the telephone set. The rotary selector and button keys are arranged within the operation range of the thumb, and thus ordinary dial functions, performed by operating the rotary selector and the button keys, are provided.

25 According to the present invention, since the rotary selector is provided as a telephone terminal, it is possible to easily select a desired function of the telephone terminal with one hand by rotating the selector.

30 Also, according to the present invention, since the rotary selector is provided in a hinge section of a telephone terminal which is foldable so that it can be housed, it is possible to select a desired function of the telephone terminal by rotating the rotary selector.

35 Since the rotary selector is provided in the hinge section of the telephone terminal which is foldable so it can be housed, the hinge section can be of any size, and the mechanical strength of the hinge section is strengthened. The provision of the rotary selector results in a reduction of key buttons for performing multiple functions, or the like, making it possible to effectively use the space where the telephone set is arranged.

40 Also, by arranging the rotary selector provided in a terminal so as to be rotatable longitudinally and slidable along the shaft of the hinge, the rotary selector can be used as a cursor. Further, by moving the cursor on the display section up and down, or from side to side in linkage with the rotary

selector in this way, various functions of a portable telephone set can be performed, and it is made easy to perform an operation with one hand.

The above and further objects and novel features of the invention will more fully appear from the following detailed description when the same is read in connection with the accompanying drawings. It is to be expressly understood, however, that the drawings are for the purpose of illustration only and are not intended as a definition of the limits of the invention.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective view illustrating the appearance of a portable radio telephone set in accordance with an embodiment of the present invention;

Fig. 2 is a perspective view illustrating a state in which the portable radio telephone set shown in Fig. 1 is used while it is held with one hand;

Fig. 3 is a perspective view illustrating a state in which the portable radio telephone set is used during a radio conversation state as it is seen from the outer side (the rear side) thereof;

Fig. 4 is an illustration of a one-hand operation method in a state in which the radio telephone set is held with one hand;

Fig. 5 is a partial sectional view of a joint portion of the radio telephone set in accordance with the embodiment of the present invention;

Fig. 6 is a partial sectional view of the joint portion and the receiver portion of the radio telephone set, a display section, and the like;

Fig. 7 is a perspective view, partly in cross section, illustrating a state in which the radio telephone set is folded so it is housed;

Fig. 8 is a plan view illustrating a method for controlling the position of a cursor by operating the dials of the radio telephone set in accordance with the present invention; and

Fig. 9 is a flowchart showing a selection of various functions by using a rotary selector of the radio telephone set.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Preferred embodiments of the present invention will be explained below with reference to the accompanying drawings of Fig. 1 through Fig. 9.

The appearance of a telephone set in accordance with the present invention will be explained first. Fig. 1 illustrates in perspective the overall appearance of the main body of the telephone set when the folded state thereof is released and it is placed in a use state. In this case, a receiver section 1 and a display section 2 are freely flexed

and engaged with each other via a hinge 5. These sections are engaged with an operation section 4 via a joint portion 3 by which the telephone set is folded and rotated so as to be housed. A receiver (speaker for outputting received voice sound) 6 is provided in the central portion of the receiver section 1. When this receiver is brought into contact with the ear of a party (user) during a radio conversation, a voice sound from the other party is heard. Since, as shown in the figure, the hinge 5 is flexed to form a V shape, it is easy to operate the telephone set during the radio conversation state. The joint portion 3 maintains the state in which the telephone set is rotated after the main body of the telephone set is folded and housed, that is, the use state, and is provided with a selector 8 for selecting functions, a rotation operation mechanism, and a push-button 9. A set button 11 for storing/retrieving and inputting/outputting information, a call origination (re-origination) button 12 for starting a conversation, a ten-key portion 13, and a termination button 14 for terminating a conversation are provided in the operation section 4, a microphone 10 being contained in the front end portion of the main body. With this construction, when a radio conversation function is selected by the selector 8, a telephone set user brings the receiver 6 into contact with the ear, and the user's mouth is brought close to the microphone 10 as in a handset of a conventional telephone set, a radio conversation with the other party then being conducted. Keyed-in information and necessary information from among stored information are called and displayed on a liquid-crystal display screen 7 disposed in the central portion of the display section 2.

Fig. 2 illustrates a state in which the telephone set is being used while it is held by one hand (the left hand in this embodiment). The telephone set user grasps both end portions of the joint portion 3 between the thumb "a" and the forefinger "b". The push-button 9 is depressed by the thumb "a" in order to rotate the display section 2 and the receiver section 1 via the joint portion 3, thereby shifting the state of the telephone set from the state in which it is folded and housed to a stable use state. Since the main body of the telephone set is basically held by the thenar "c" and the remaining three fingers "d", an accident, such as the main body of the telephone set falling from the hand, does not occur even if the thumb "a" and the forefinger "b" are separated from the main body of the telephone set. Therefore, if the main body of the telephone set is held as shown in Fig. 2, the telephone set user can operate the selector 8 and various operation buttons on the operation section 4 with the thumb "a" while simultaneously confirming a display on the liquid-crystal display screen 7.

Fig. 3 is a perspective view of the portable radio telephone set as it is seen from the outer side (the rear side) thereof, illustrating a state in which the radio telephone set is used during a radio conversation. As shown in Fig. 3, the forefinger "b" is separated from one end of the joint portion 3, and the selector 8 is operated by the forefinger "b". As a result, the selector 8 can be operated by the thumb "a" from the inner surface thereof, and also by the forefinger "b" from the outer surface thereof.

Therefore, the selector 8 is provided in the joint portion 3 so as to select various functions (to be specific, call origination/reception, telephone number, secrecy, input, output, storage, calculation, time, remote control, schedule, call, clear, calendar, dictionary, map, characters, numerals, or the like) during a non-radio conversation time, and so as to function to adjust the volume of the received voice sound during a radio conversation time. The selector 8 is provided in such a way that the selector 8 is rotatable longitudinally and can be operated from both the inner and outer surfaces.

Fig. 4 illustrates a one-hand operation method in a state in which the radio telephone set is held with one hand. As shown in the figure, in the main body of the telephone set, the right and left ends of the operation section 4 are held by the thenar "c" and the three fingers "d". If the push-button 9 is depressed by the thumb "a", the folded and housed telephone set can be shifted to a stable use state, i.e., a radio conversation state, by rotating the receiver section 1 and the display section 2 via the joint portion 3.

An example of a case in which a radio conversation is conducted in this use state will be explained. First, the telephone set user selects by using the selector 8 a list display function (one function of the telephone set) for displaying a list of names and their telephone numbers. The available selection methods include a method in which a list of functions is displayed beforehand on the liquid-crystal display screen 7 and a cursor which is moved in linkage with the rotation of the selector 8 or the like is moved up and down to identify any one of the functions, a method in which the selector itself is provided with a change-over switch corresponding to multiple functions, the selector being switched to select any one of the functions. The functions can be more easily selected by using the selector 8 in addition to the key buttons. Next, a list of the prestored names and their telephone numbers is displayed on the liquid-crystal display screen 7, and a wanted telephone number is retrieved by scrolling the display screen using the selector 8. In the above display and retrieval method, only the selector 8 needs to be operated. As a result, an operation for switching the selector

8 at a thumb position "f" is possible. Further, when the telephone number of the other party is confirmed, a set button 11 is depressed at a thumb position "g", and a call origination (re-origination) button 12 is operated, allowing a radio conversation to start. When the radio conversation is terminated, a termination button 14 is depressed at a thumb position "i" in order to complete a series of operations necessary for conducting a radio conversation. That is, the range in which the liquid-crystal display screen 7 can be visually confirmed and in which the thumb "a" can be moved to operate the selector 8, the call origination (re-origination) button 12, and the termination button 14 is assumed to be the range defined by the broken lines A and B shown in the figure. In this range, necessary operations can be performed by the thumb "a". In other words, this range is a range in which the thumb "a" is rotated, turned, moved back and forth, and bent in a combined manner at a joint "e" about the base of a human's phalanx in the thumb "a". Therefore, when the selector 8 and various buttons required for a radio conversation are arranged in the range defined by the broken lines A and B, since the selector 8 and the buttons are operated with one hand, the ease with which the telephone set is operated with one hand is enhanced.

An example in which these various functions are selected by the selector 8 will now be explained with reference to the flowchart in Fig. 9. When the telephone set is opened for use from the state in which it is housed because the push-button 9 is depressed by the thumb "a", the power supply is turned on, and the initial screen appears on the liquid-crystal display screen 7, on which screen date, time, and the like are displayed. When the set button 11 is depressed, a function screen appears on the display screen 7. The displayed function setting and the memory dial are cursor-moved by turning the selector 8. Then, a function is selected, and the function is determined by operating the set button 11.

When a function setting is selected in such function selection, functions "Set/Release", "Select", "Adjust", "Command input" and "Display only" are successively displayed as a result of the turning of the selector 8, making scrolling retrieval possible and allowing these selected functions to be confirmed. When these functions are selected and set by the set button 11, call origination restriction is set or released in "Set/Release", turning on/off of number announcement is selected by the cursor movement caused by the turning of the selector 8 and determined by the set button 11, and the screen returns to the initial screen. When the function "Select" is selected and set, the selectable range of ringing tone quality is displayed, and it is possible to select the tone quality by turning

the selector 8 while displaying the current situation. After the tone quality is determined by the set button 11, the screen returns to the initial screen. When the function "Adjust" is selected and set, the selectable range of the receiver tone volume is displayed, and it is possible to select the tone volume by turning the selector 8 while displaying the current situation. After the receiver tone volume is determined by the set button 11, the screen returns to the initial screen. When the function "Command input" is selected and set, a display screen for inputting four digits of a personal identification number appears, making it possible to input the number by using the buttons of a ten-key section 13. The number is set by the set button 11 after it is input, and the screen returns to the initial screen. When the function "Display only" is selected and set, the amount of the remaining memory of the memory dial is displayed, and the screen returns to the initial screen.

When the memory dial is selected in the function selection, "Store", "Update", and "Clear" displayed on the display screen 7 are set by the selector 8 as a result of the turning thereof, and set by the set button 11, making it possible to proceed to the subsequent functions.

Although in the above-described operation, functions are determined by the set button 11, the selector 8 may be moved axially so as to have the same functions as those of the set button 11 as in a joystick 29 which will be described later. In such a case, the ease with which the telephone set is operated with one hand is enhanced even more.

Fig. 5 is a partial sectional view of the joint portion 3 of the radio telephone set in accordance with the present invention. The joint portion 3 is formed of a case 15 and a button shaft 19, and fixed to the operation section 4. A boss shaft 16 is formed in the central end surface portion of the case 15, and the boss shaft 16 and a hollow flange 18 are rotatably engaged with each other. Similarly, a sleeve shaft 22 is formed in the button shaft 19, and the sleeve shaft 22 and a sleeve flange 20 are rotatably engaged with each other. The rotatable hollow flange 18 and the sleeve flange 20 are fixed by a chassis 17 which is stably fixed inside the display section 2. In this way, the operation section 4 and the display section 2 are freely engaged with each other in such a way that they can be folded on one another via the joint portion 3.

The push-button 9 can be movably inserted into the end surface of the button shaft 19. A shank 23 formed in the push-button 9 is slidably fitted into the inside of the sleeve shaft 22. A stopper piece 24 is disposed in the shank 23 which is engaged with notches 25 and 26 formed in the end surfaces of the sleeve shaft 22 and the sleeve flange 20. As a result, the rotation of the sleeve

flange 20 is stopped, and consequently the rotation of the display section 2 is stopped stably. The notch 26 of the sleeve shaft 22 does not allow the engagement of the stopper piece 24 to be released for the maximum axial stroke of the push-button 9. In contrast, the engagement of the notch 25 of the sleeve flange 20 can be released and freely rotated. The notch 25 of the sleeve flange 20 is formed at an open position where the telephone set is being used and at a housing position (not shown) where it is folded and housed.

Further, a torsion coil spring 21 is disposed inside the case 15. One end of the torsion coil spring 21 is connected and fixed to the case 15, and the other end thereof is extended from the case 15 and engaged with a spring hole formed in the hollow flange 18. As a result, if the push-button 9 is depressed, the stopper piece 24 releases the stoppage at the notch 25 (not shown) when it is housed, and the elastic force of the torsion coil spring 21 is released, causing the hollow flange 18 to rotate. Therefore, the receiver section 1 and the display section 2 are rotated, becoming ready for use.

Since some elastic force still remains in the torsion coil spring 21 in the above connection in the use state, a rotational force is given continuously in the direction in which the remaining elastic force is released. This fact indicates that unwanted jarring which may occur when the telephone set is used, is prevented by the rotational force thereof.

Further, when a selector shaft 28 engaging with the selector 8 moves along the axis thereof when the mechanical position thereof is read, the stroke stops at the end surface of the shank 23 so as to serve as a stopper. The press fitting between the shank 23 and a shaft 27 is not released by such an operation force acting on the selector shaft 28. The selector shaft 28 and the shaft 27 are able to slide axially and turn around the shaft thereof on one shaft. The shaft 27 is supported so as to be slidable and turnable inside the selector shaft 28, and the other end reaches the joystick 29. Further, the selector shaft 28 extends close to the center of the joint portion 3, and the selector 8 is press-fitted to the end. The selector 8 is able to smoothly slide axially and turn around the shaft thereof without contacting other components.

Next, the joystick 29 will be explained. Disposed inside the joystick 29 are a power-supply switch (not shown) working with the shaft 27, a volume (for adjusting the receiver tone volume) which operates in response to the movement of the selector shaft 28, a sensor (for selecting functions), and the like. Examples of the sensor are a mechanical sensor, an electrical sensor, or an optical sensor. In short, the sensor detects the rotational position of the selector shaft 28, the sliding opera-

tion along the rotational shaft, and sends a signal to the liquid-crystal display screen 7 so that function selection/setting shown in Fig. 9 is performed and the screen is switched. Examples of methods performed by the power-supply switch are a method in which the position of the selector shaft is detected by the sensor and the power supply is turned on/off, and a method in which simply one end of the selector shaft 28 and the surface which the one end contacts are formed into an electrical contact point, and it is made to work with the depressing of the push-button 9. If the turning on/off of the push-button 9 is made to work in linkage with the turning on/off of the power-supply switch as in these methods, the telephone set user depresses the push-button 9 in order to make the telephone set in a folded and housed state shift to a use state, the power supply of the telephone set can be turned on, making it unnecessary to provide a key button exclusively used for the power-supply switch in the operation section 4. More specifically, when the telephone set is shifted to a state in which it is placed in a use state from the folded and housed state, the power supply of the telephone set can be inevitably turned on without operating a key button exclusively used for the power supply. The sensor inside the joystick 29 works not only with the selector shaft 28, but also with the operation of the function button in the operation section 4, and functions can be selected from the operation section 4.

The functions selected in this way reach a display processing circuit (not shown) via a cord E, and various displays necessary for performing the functions are made. Although in the embodiment the selector 8 works for controlling the position of a cursor, a selector exclusively used for controlling the position of the cursor, in addition to the selector 8, may be disposed near the selector 8.

Fig. 6 is a partial sectional view of the joint portion 3, the receiver section 1, and the display section 2. As shown in the figure, the display section 2 is able to turn along a slide ring 30 which serves as a part of the joint portion 3 fixed to the operation section 4. Inside the display section 2, one end of a fine slide pin 31 is always pressed against and built onto the slide ring 30. The other end of the slide pin 31 is rotatably engaged with a hinge piece 32 which works with the hinge 5 by which the section between the display section 2 and the receiver section 1 is made flexible. An elastic spring 33 is fixed to the hinge piece 32, and the other end is fixed to a spring seat 34 formed inside the receiver section 1. As shown in the figure, the receiver section 1 stabilizes at the flex position as indicated by the solid line by the action of the elastic spring 33. When an unnecessary force acts on the receiver section 1, since the

receiver section 1 is turned as indicated by the broken line, the telephone set itself is protected, and the receiver section 1 contacts the user's ear with elastic properties during a non-radio conversation. Thus, received voice can be heard in a satisfactory contact. When the telephone set is folded and housed, the receiver section 1 and the display section 2 are folded via the joint portion 3 as indicated by the broken line. Since, at that time, the slide pin 31 engages with a notch 35 of the slide ring 30, formed at the position at which the telephone set is housed, the receiver section 1 and the display section 2 are folded stably. At the folded time, the hinge piece 32 which works with the slide pin 31 is retracted into the display section 2. Therefore, the receiver section 1 which is flexed with respect to the display section 2 is folded in a state in which it is spread linearly so as to be along the display section 2.

Fig. 7 is a perspective view, partly in cross section, illustrating a state in which the telephone set is folded so as to be housed. As shown in the figure, since the slide pin 31 built into the display section 2 is engaged with the notch 35 formed in a part of the outer periphery of the joint portion 3 (equivalent to the slide ring 30), the telephone set is stably folded and housed. In this folded and housed state, if the push-button 9 is operated, the receiver section 1 and the display section 2 are turned for use, and the slide pin 31 is slidingly released from the notch 35. As a result, the receiver section 1 is flexed with respect to the display section 2.

Finally, controlling the position of the cursor by using the selector 8 will be explained. Fig. 8 illustrates a method for controlling the position of the cursor. As shown in the figure, the selector 8 disposed in the joint portion 3 is used to update the position of the noticed display on the liquid-crystal display screen 7, i.e., the position of a cursor 37. When that position is updated, the thumb "a" is operated at will from side to side in the direction of the arrow A or up and down in the direction of the arrow B in a state in which the thumb "a" contacts at a position "j" on the selector 8. That is, when the selector 8 is in a free state, the selector 8 stabilizes while maintaining clearances 36a and 36b of the same size toward the right and left, respectively. The operation using the thumb "a" in the direction of the arrow A changes the size of these clearances 36a and 36b. This change is sensed by a sensor inside the above-mentioned joystick 29. If, for example, the selector 8 is operated to the right, the cursor 37 is moved to the right on the liquid-crystal display screen 7. If the thumb "a" is released from the selector 8, the selector 8 is automatically made to return to the central position. The upward and downward opera-

tion of the selector 8 by using the thumb "a" causes the selector 8 to rotate up and down. The direction and the amount of the rotation at that time is sensed by the knob or sensor inside the joystick 29, and the cursor 37 moves up and down on the liquid-crystal display screen 7. What is meant by "sensed by the knob" here is that the amount of the rotation of the selector 8 is determined by voltage, current or the like corresponding to the knob. When a selector exclusively used for controlling the position of the cursor, in addition to the selector 8, is disposed near the selector 8, the selector exclusively used for controlling the position of the cursor is similarly operated, controlling the position of the cursor 37. Therefore, if the cursor 37 is moved successively to a desired position, for example, in a condition in which all necessary characters, numerals, symbols or the like are displayed on the liquid-crystal display screen 7, characters or the like at a moved position are sequentially selected as input subjects, and processed. When the set button 11 is operated on the operation section 4 in a condition in which, for example, the cursor 37 is moved to a desired character position, a list of names and telephone numbers can be displayed in part on the upper portion of the liquid-crystal display screen 7. Up to the present time, desired character strings or the like have been formed solely by operations of ten-keys for a necessary number of times. The operations are troublesome and complex, and key processing requiring a great number of operations is necessary. However, when display processing is performed as described above, such inconveniences as described above are reduced.

According to the embodiment of the present invention, as described above, since the rotary selector is disposed in the hinge section of a telephone set which is folded so as to be housed, the hinge section is made to have a desired size so that the mechanical strength of the hinge section can be strengthened. Since the provision of the rotary selector results in a reduction of key buttons for performing multiple functions, there is an advantage in that the space where the telephone set is arranged can be effectively used.

According to the embodiment of the present invention, there is an advantage in that by using the rotary selector disposed in a terminal, no key buttons exclusively used for controlling the cursor are needed, and the operation with one hand is made easier.

In addition, according to the embodiment of the present invention, the number of necessary key buttons can be reduced since the portable telephone set is provided with a rotary selector, and key buttons and a display of the most appropriate size can be arranged in a telephone set of the

most appropriate size. Furthermore, when the rotary selector is disposed in the hinge section of a folding type portable telephone set, the space where the rotary selector is disposed can be reduced.

According to the embodiment of the present invention, since a rotary selector is disposed in the telephone set, it is possible to easily perform various operations necessary, in particular, for conducting a radio conversation with the fingers of one hand while the telephone set itself is being held with the same hand.

Many different embodiments of the present invention may be constructed without departing from the spirit and scope of the present invention. It should be understood that the present invention is not limited to the specific embodiment described in this specification. To the contrary, the present invention is intended to cover various modifications and equivalent arrangements included within the spirit and scope of the claims. The following claims are to be accorded the broadest interpretation, so as to encompass all such modifications and equivalent structures and functions.

#### Claims

1. A portable radio telephone set provided with a display section, comprising: a rotary selector which turns to select various functions, said rotary selector being capable of selecting a menu of the various functions displayed on the display section during a non-conversation time, and capable of adjusting the sound volume during a conversation time, the adjusting operation capable of being performed from both the front and rear sides of said telephone set, and button keys being arranged with said rotary selector within the operation range of the thumb so that ordinary dial functions performed by operating said rotary selector and said button keys are provided.
2. A portable radio telephone set according to claim 1, said telephone set being of a folding type so as to be housed, wherein said rotary selector is provided in the foldable hinge section so as to be rotatable in the same direction as that of said hinge section.
3. A portable radio telephone set according to claim 2, wherein a folding and housing control mechanism is disposed in the side end of said hinge section.
4. A portable radio telephone set according to claim 1, wherein said rotary selector is rotat-

able and slidable along the rotational shaft thereof.

5. A portable radio telephone set according to one of claims 1 and 4, wherein said rotary selector makes it possible to control the position of a cursor on the display section. 5
6. A portable radio telephone set according to claim 1, wherein, when said rotary selector turns to set functions in function selection, it is possible to scroll and retrieve setting and releasing of call origination restriction, ringing tone, receiver tone volume, inputting of a personal identification number or the like, which are functions displayed on said display section, and it is possible to select and set these functions by the rotary selector. 10  
15
7. A portable radio telephone set which is provided with a display section and of a folding and housing type, said telephone set comprising a rotary selector which turns to select various functions being disposed in a hinge section for folding and housing purpose in such a way that the rotary selector can turn in the same direction as that of said hinge section, and a dial for controlling the position of a cursor being disposed near the shaft of the hinge section of said rotary selector, said dial being capable of turning in the same direction as that of said hinge section and capable of sliding along the shaft of said hinge section. 20  
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30
8. A portable radio telephone set according to claim 7, further comprising a folding and housing control mechanism disposed in the side end of said hinge section. 35
9. A portable radio telephone set which is provided with a display section and of a folding and housing type, said telephone set comprising a rotary selector which turns to select various functions disposed in a hinge section for folding and housing purpose in such a way that the rotary selector can turn in the same direction as that of said hinge section, said rotary selector selecting a menu displayed on a display section during a non-conversation time and adjusting a sound volume during a conversation time, such adjusting operation capable of being performed from both the front and rear sides of said telephone set, button keys being arranged with said rotary selector within the operation range of the thumb so that ordinary dial functions performed by operating said rotary selector and button keys are provided, and a dial for controlling the position of 40  
45  
50  
55

a cursor being disposed near the shaft of the hinge section of said rotary selector, said dial being capable of turning in the same direction as that of said hinge section and capable of sliding along the shaft of said hinge section.



FIG. 1

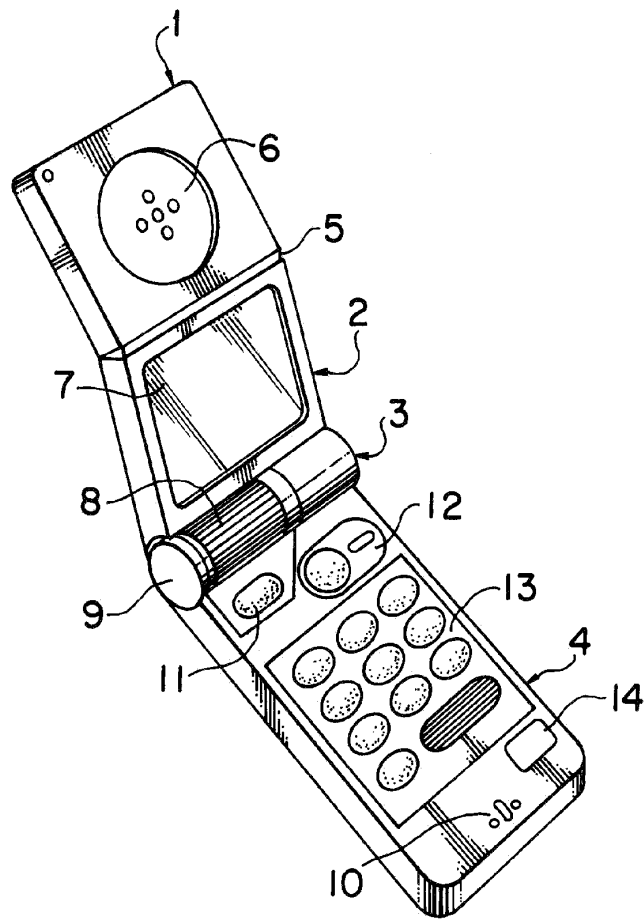


FIG. 2

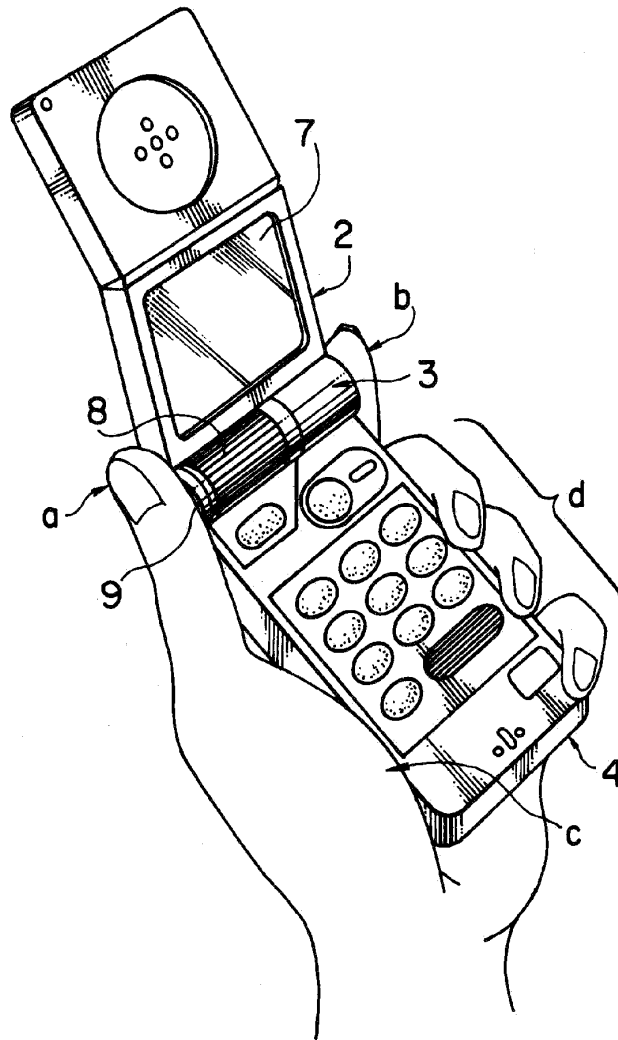


FIG. 4

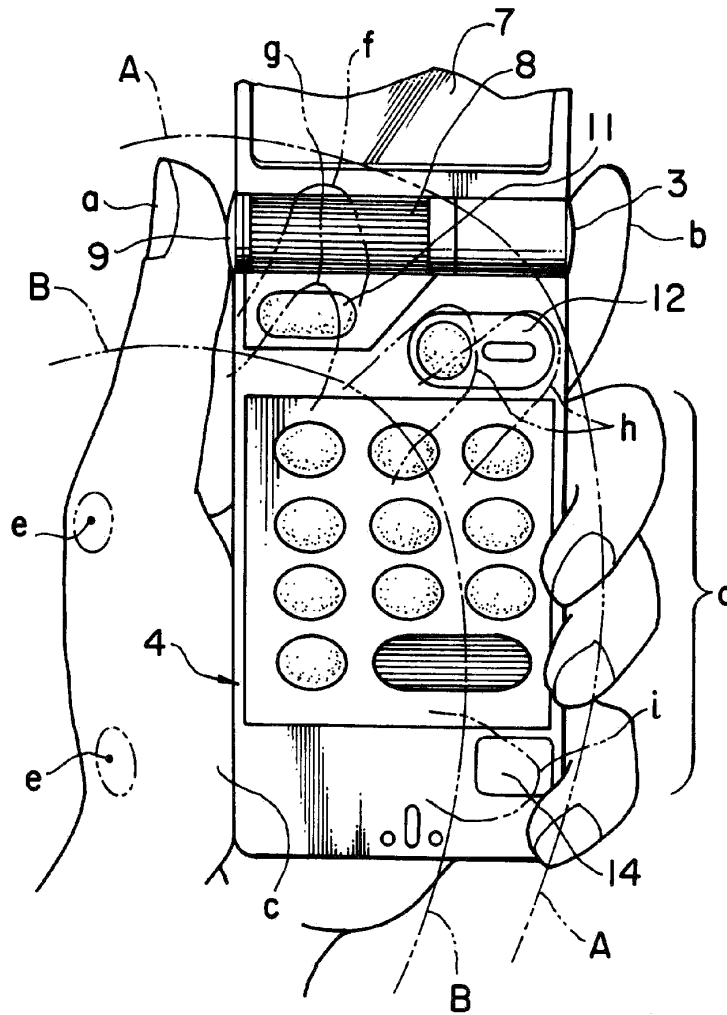


FIG. 3

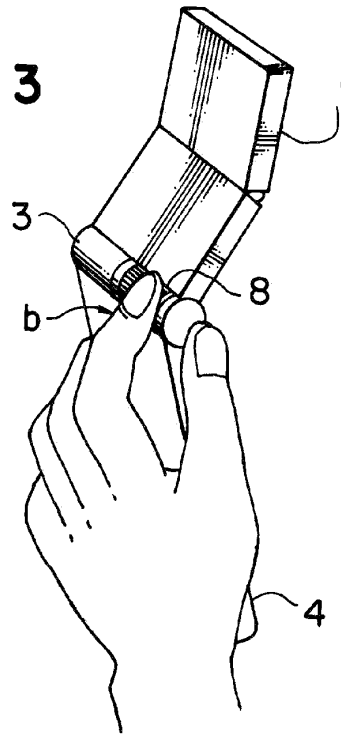


FIG. 5

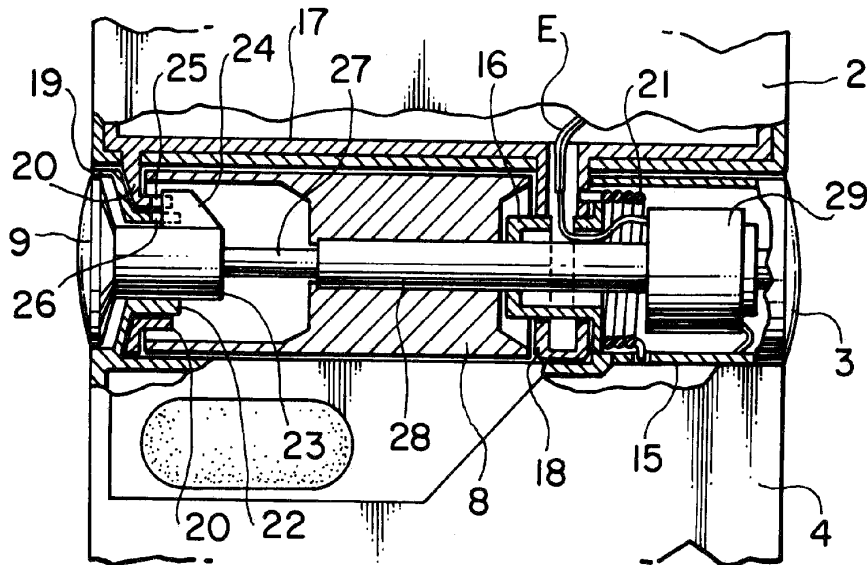


FIG. 6

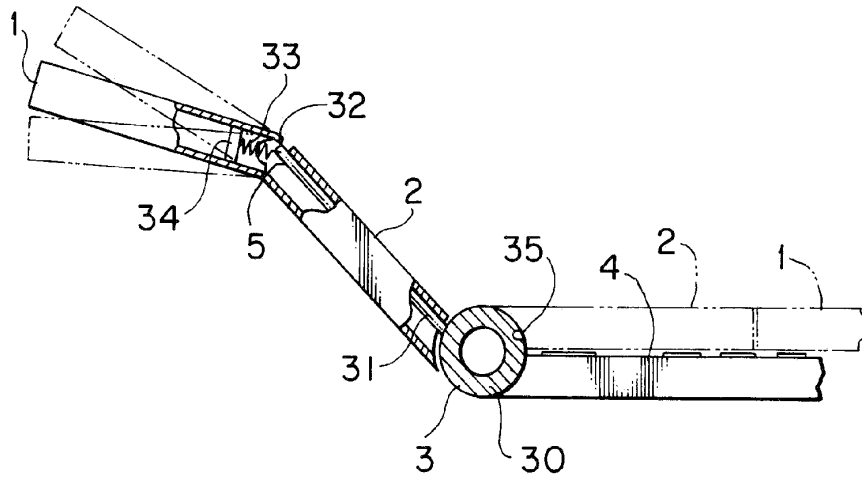


FIG. 7

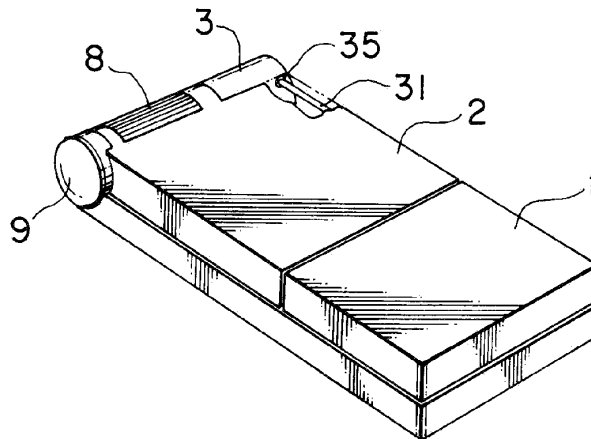
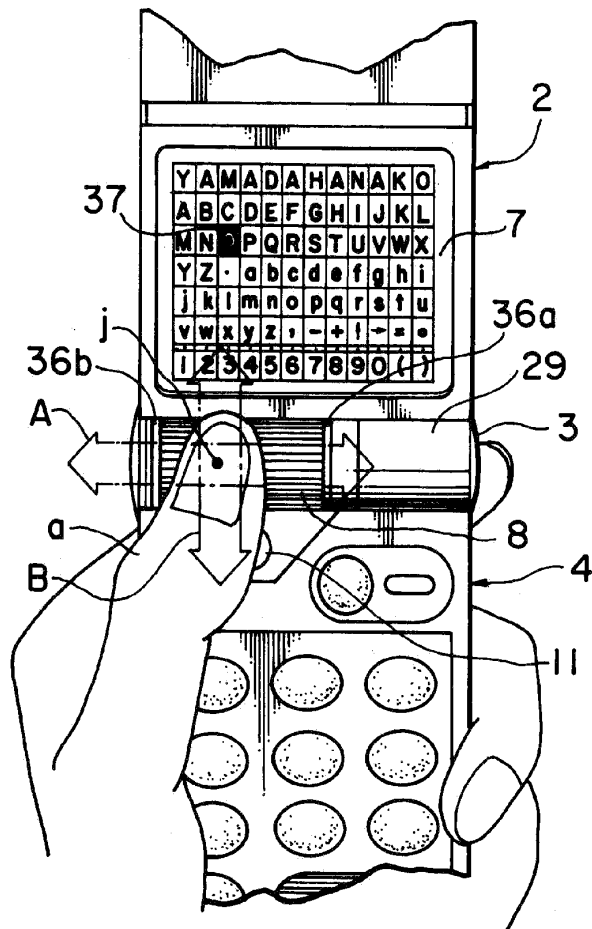
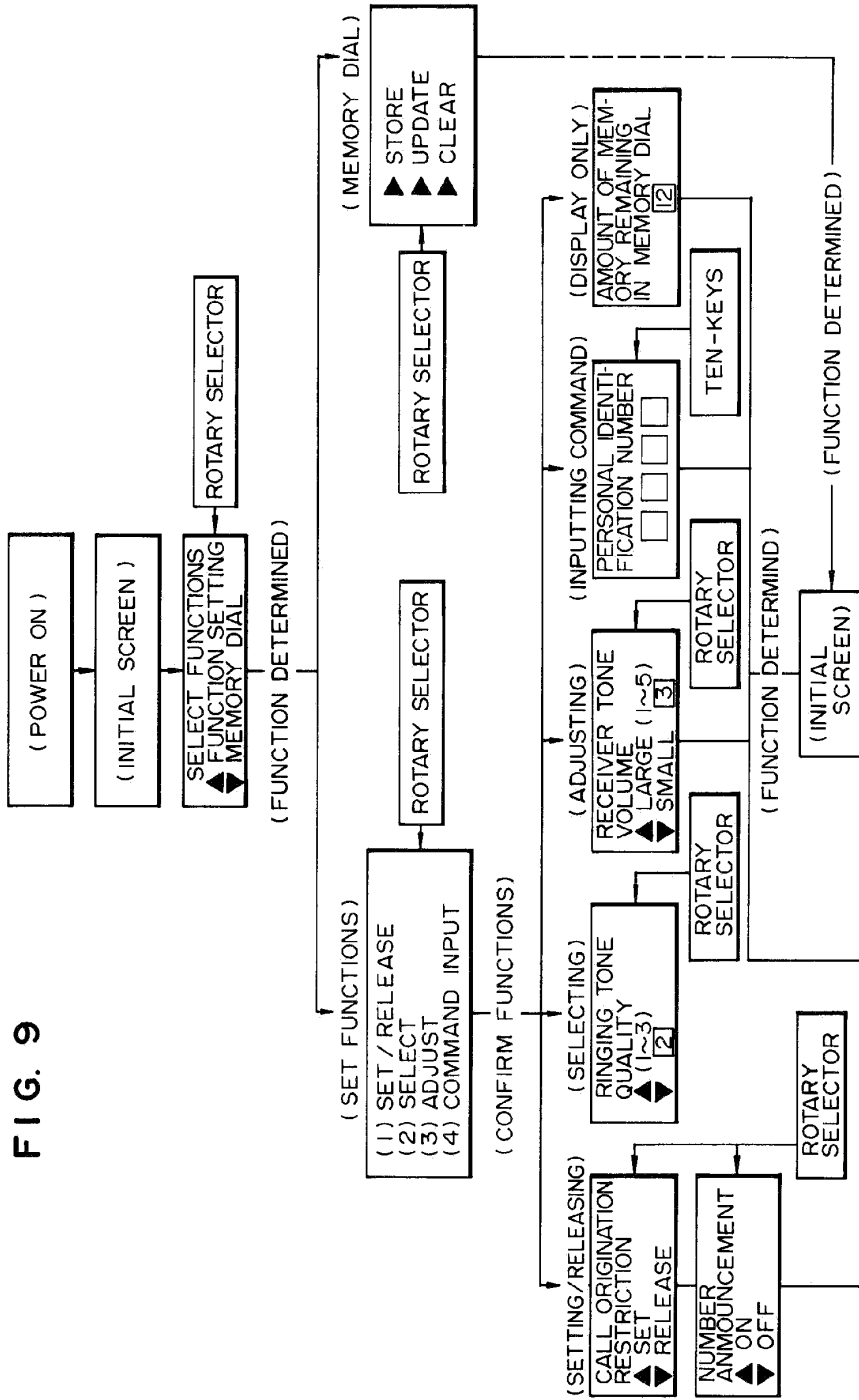


FIG. 8







DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)
Y A	EP-A-0 463 856 (NOKIA MOBILE PHONES LTD) * the whole document * ---	1,6 7,9	H04M1/02
Y	DE-A-40 08 598 (PHILIPS PATENTVERWALTUNG GMBH) * column 3, line 15 - column 5, line 34; figures 1-3 * ---	1,6	
A	EP-A-0 373 387 (ROBERT BOSCH GMBH) * column 2, line 40 - column 4, line 35; figures 1,2 * ---	1,5,7,9	
A	US-A-4 481 382 (VILLA-REAL) * column 3, line 10 - column 5, line 65; figures 1-6 * ---	1,7,9	
A	US-A-5 027 394 (ONO ET AL) * column 2, line 55 - column 3, line 30; figures 1-7 * -----	2	
			TECHNICAL FIELDS SEARCHED (Int.Cl.5)
			H04M
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 15 December 1993	Examiner Delangue, P
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	

EPO FORM 1503 03.82 (P/M/C01)



## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	12170939			
<b>Filing Date:</b>	10-Jul-2008			
<b>Title of Invention:</b>	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS			
<b>First Named Inventor/Applicant Name:</b>	Yves Behar			
<b>Filer:</b>	Matthew H. Grady			
<b>Attorney Docket Number:</b>	L2039-700110			
Filed as Large Entity				
<b>Utility under 35 USC 111(a) Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
Claims in excess of 20	1202	4	52	208
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
<b>Extension-of-Time:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension - 1 month with \$0 paid	1251	1	130	130
<b>Miscellaneous:</b>				
Submission- Information Disclosure Stmt	1806	1	180	180
<b>Total in USD (\$)</b>				<b>518</b>

<b>Electronic Acknowledgement Receipt</b>	
<b>EFS ID:</b>	8757257
<b>Application Number:</b>	12170939
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	1986
<b>Title of Invention:</b>	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS
<b>First Named Inventor/Applicant Name:</b>	Yves Behar
<b>Customer Number:</b>	37462
<b>Filer:</b>	Matthew H. Grady
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	L2039-700110
<b>Receipt Date:</b>	03-NOV-2010
<b>Filing Date:</b>	10-JUL-2008
<b>Time Stamp:</b>	13:03:55
<b>Application Type:</b>	Utility under 35 USC 111(a)

**Payment information:**

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$518
RAM confirmation Number	8952
Deposit Account	502762
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

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 Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

**File Listing:**

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	L2039-700110_IDS_Letter.pdf	33102 8abfae9ed5a9c739bb84a22865e9a39a17f232c4	no	3
<b>Warnings:</b>					
<b>Information:</b>					
2	Foreign Reference	DE19952486A1_Plus_Translation.pdf	519019 e8d040c0b4afdf3d09a78a0ed615fa3de9cd33a	no	9
<b>Warnings:</b>					
<b>Information:</b>					
3	Foreign Reference	KR_10_2000-0036647_Unex_Pub.pdf	474487 935c48471f99fa13f3045cf93322a2a8fad13a64	no	4
<b>Warnings:</b>					
<b>Information:</b>					
4	Information Disclosure Statement (IDS) Filed (SB/08)	L2039-700110_updated_IDS_2.pdf	614048 58121d12da9e645c74878fad6c521a6f1bf4f4ec	no	9
<b>Warnings:</b>					
<b>Information:</b>					
5		L2039-700110_Amendment.pdf	76332 09498a022a4d388a5d876d53d5ade623ceb85a1	yes	14
	<b>Multipart Description/PDF files in .zip description</b>				
	<b>Document Description</b>		<b>Start</b>	<b>End</b>	
	Amendment/Req. Reconsideration-After Non-Final Reject		1	1	
	Claims		2	7	
Applicant Arguments/Remarks Made in an Amendment		8	14		
<b>Warnings:</b>					
<b>Information:</b>					
6	Foreign Reference	EP_0588210.pdf	908269 0391104a3150860e017714968a9e4a2b98168f2	no	16
<b>Warnings:</b>					

<b>Information:</b>				
7	Fee Worksheet (PTO-875)	fee-info.pdf	34187	no
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<b>Information:</b>				
<b>Total Files Size (in bytes):</b>			2659444	
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  <b>If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  <b>If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  <b>If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</b></p>				

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Yves Behar  
Serial No: 12/170,939  
Confirmation No: 1986  
Filed: July 10, 2008  
For: PORTABLE COMPUTER WITH MULTIPLE DISPLAY  
CONFIGURATIONS

Examiner: Adrian S. Wilson  
Art Unit: 2835

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**CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. §1.8(a)**

The undersigned hereby certifies that this document is being electronically filed in accordance with 37 C.F.R. §1.6(a)(4) on the 3<sup>rd</sup> day of November, 2010.

/Matthew H. Grady/  
Matthew H. Grady, Reg. No. 52,957

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Commissioner for Patents

**INFORMATION DISCLOSURE STATEMENT FILED PURSUANT TO THE DUTY OF  
DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98**

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

**PART I: Information Cited**

The Applicant hereby makes of record in the above-identified application the information listed on the concurrently filed form PTO/SB/08a.

The order of presentation of the references should not be construed as an indication of the importance of the references.

The Applicant hereby makes the following additional information of record in the above-identified application.

The applicant would like to bring to the Examiner's attention the following co-pending applications that may contain subject matter related to this application:

<u>Serial No.</u>	<u>Filing Date</u>	<u>Inventor(s)</u>	<u>Publication No.</u>
12/170,951	July 10, 2008	Yves Behar	US 2009/0244012 A1
12/416,479	April 1, 2009	Yves Behar	US 2009/0322790 A1
12/611,282	November 3, 2009	Robert Pennington	US 2010-0174993 A1

The Applicant would like to bring to the Examiner's attention the enclosed search report and/or written opinion from corresponding International Application PCT/US2009/038599.

#### PART II: Explanation of Non-English Language References

The following is a concise explanation of the relevance of each non-English language reference listed on the concurrently filed form PTO/SB/08a:

For the relevance of the listed non-English language reference DE 19952486 A1 published March 05, 2001, the reference was cited in the International Search Report from a corresponding PCT application PCT/US2009/038599, wherein this document was placed in category "X," meaning that, in the opinion of the International Searching Authority, the reference is a document of particular relevance. An English language version of the Abstract is attached, a machine based translation provided through the European Patent Office of the description and claims is provided herewith, and a translation from Thomson Innovation ([www.thomsoninnovation.com](http://www.thomsoninnovation.com)), is also provided herewith.

#### PART III: Remarks

Documents cited anywhere in the Information Disclosure Statement, other than U.S. Patents and U.S. Patent Application Publications listed on a Form PTO/SB/08a, are enclosed unless otherwise indicated. It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
2. Any concurrently filed form PTO/SB/08a be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;

3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

Notwithstanding any statements by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Respectfully submitted,

*Yves Behar, Applicant*

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19 **BUNDESREPUBLIK  
DEUTSCHLAND**



**DEUTSCHES  
PATENT- UND  
MARKENAMT**

12 **Offenlegungsschrift**  
10 **DE 199 52 486 A 1**

51 Int. Cl.<sup>7</sup>:  
**G 06 F 1/16**  
G 09 F 9/30  
// G09F 27/00

21 Aktenzeichen: 199 52 486.6  
22 Anmeldetag: 29. 10. 1999  
43 Offenlegungstag: 3. 5. 2001

**DE 199 52 486 A 1**

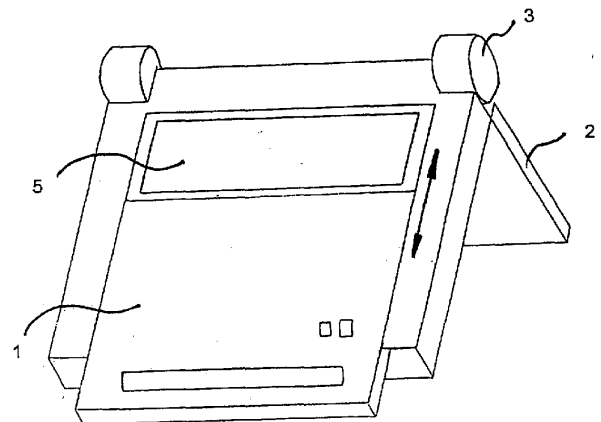
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**Die folgenden Angaben sind den vom Anmelder eingereichten Unterlagen entnommen**

54 **Präsentationsvorrichtung**

57 Die Erfindung bezieht sich auf eine Präsentationsvorrichtung, die vorwiegend für eine Kundenberatung im Außendienst konzipiert ist. Ein Laptop-Computer mit einer verschiebbaren Tastatur 1 hat unter dieser einen zweiten Bildschirm 5, der bei einer Präsentation als Kontrollbildschirm verwendet wird. Der Hauptbildschirm 2 kann über wenigstens 220 Grad verschwenkt werden, so daß bei einer Präsentation zwei sich gegenüber sitzende Personen je einen Bildschirm betrachten können. Die Präsentationsvorrichtung kann auch wie ein herkömmlicher Laptop genutzt werden.



**DE 199 52 486 A 1**

## Beschreibung

Die Erfindung bezieht sich auf eine Präsentationsvorrichtung, die vorwiegend für eine Kundenberatung im Außendienst konzipiert ist.

Wenn ein Beratungs- bzw. Verkaufsgespräch beim Kunden durchgeführt wird, sind die räumlichen Verhältnisse oft nicht für eine optimale Präsentation geeignet, d. h., moderne Präsentationsmittel, wie Overhead-Projektor mit LC-Display oder Videoprojektor, können nicht eingesetzt werden. Wenn z. B. Versicherungsvertreter oder Finanzdienstleister ihre Kunden in der Wohnung aufsuchen, ist es nicht möglich, eine Projektionswand aufzustellen. Derartige räumliche Veränderungen werden von den meisten Kunden abgelehnt. Es ist daher üblich, Berechnungen und Diagramme auf einem Blatt Papier aufzuzeichnen und dabei das Blatt halb zum Kunden zu drehen, damit er der ergänzenden schriftlichen Erläuterung folgen kann. Es ist auch möglich, einen Laptop-Computer zu benutzen, was jedoch insofern Probleme bringt, da der Verkäufer und der Kunde gemeinsam einen relativ kleinen Bildschirm betrachten müssen.

Es hat sich gezeigt, daß die Präsentation mit einem Computer eine Reihe von Vorteilen bietet. Mittels spezieller Software können z. B. verschiedenste Varianten einer Lebensversicherung durchgerechnet und sofort grafisch, d. h. leicht verständlich und daher überzeugend, dargestellt werden. Da sich diese Präsentationstechnik ständig weiterentwickelt und vom Kunden als sehr komfortabel akzeptiert wird, besteht das dringende Bedürfnis, auch für den kleinen Präsentationseinsatz vor Ort, d. h. in der Wohnung des Kunden oder in einem kleinen Büroraum, diese Technik einzusetzen.

Moderne Kleincomputer, wie z. B. kleine Notebooks, bieten auf Grund ihrer hohen Rechenleistung prinzipiell die Möglichkeit, auch programm- und speicherintensive, d. h. anspruchsvolle, Präsentationssoftware zu verarbeiten. Somit wäre auch beim Kunden vor Ort eine überzeugende Präsentation möglich, wenn das o. g. Problem der räumlichen Einschränkungen gelöst werden könnte.

Dazu wurde in dem deutschen GBM 94 06 985 vorgeschlagen, an einem herkömmlichen Laptop mit Flachbildschirm einen weiteren Flachbildschirm über ein Gelenk anzukoppeln, so daß zwei sich gegenüber sitzende Personen jeweils auf einen Bildschirm sehen können. Diese Vorrichtung ist prinzipiell für den vorgesehenen Anwendungsfall geeignet, jedoch umständlich in der Bedienung. Es besteht daher das Bedürfnis nach einer weiteren Verbesserung der Präsentationsqualität, nach einer weiteren Kostensenkung, nach einer Gewichtsverringerung oder nach einer verbesserten Bedienbarkeit.

Die Aufgabe der Erfindung besteht in der Schaffung einer rechnergestützten Präsentationsvorrichtung, die auch unter sehr beengten räumlichen Verhältnissen eine überzeugende Präsentation ermöglicht und einfach und bequem zu bedienen ist.

Die Aufgabe wird mit Vorrichtungen nach Anspruch 1 gelöst. Die Präsentationsvorrichtung ist ein herkömmlicher Laptop-Computer mit einer verschiebbaren Tastatur und einem schwenkbaren Hauptbildschirm, der im eingeklappten Zustand auf dem Grundkörper des Laptop-Computer aufliegt und die Tastatur abdeckt.

Erfindungsgemäß ist unter der Tastatur in dem Grundkörper ein weiterer Bildschirm angeordnet, der ebenfalls an den Laptop-Computer angeschlossen ist. Weiterhin ist das Gelenk des schwenkbaren Hauptbildschirms so ausgebildet, daß der Hauptbildschirm wenigstens um ca. 220 Grad schwenkbar ist.

Die Präsentationsvorrichtung kann als herkömmlicher

Laptop-Computer genutzt werden, wobei wahlweise die Tastatur so verschoben werden kann, so daß der darunter liegende Bildschirm sichtbar wird.

Wenn einer zweiten Person eine Präsentation gezeigt werden soll, wird der Hauptbildschirm um wenigstens 220 Grad oder mehr, umgeklappt, so daß die zweite Person nunmehr auf den Hauptbildschirm sehen kann. Durch eine Steuereinrichtung wird das Bild des Hauptbildschirms um 180 Grad gedreht.

Die Bedienerperson steuert die Präsentation mittels der Tastatur, Maus oder anderer Eingabeeinrichtungen und verfolgt den Ablauf der Präsentation auf dem zweiten Bildschirm, dem Kontrollbildschirm.

Das Einschalten des zweiten Bildschirms und das Umklappen des Bildes des Hauptbildschirms kann wahlweise über Schalter oder über Tastatureingabe manuell erfolgen. Zweckmäßig ist jedoch gemäß Anspruch 2 ein automatisches Einschalten und Drehen des Bildes, indem z. B. in dem Gelenk eine Schwenkwinkelerkennungsvorrichtung angeordnet ist, die veranlaßt, daß bei einem vorbestimmten Schwenkwinkel des Hauptbildschirms, das Bild des Hauptbildschirms gedreht und auch der zweite Bildschirm eingeschaltet wird.

Nach Anspruch 3 ist der zweite Bildschirm ein einfarbiger Bildschirm. Diese Weiterbildung ist dann vorteilhaft, wenn z. B. auf dem Hauptbildschirm dem Kunden eine aufwendige farbige Grafik, d. h. z. B. eine ansprechende und überzeugende Präsentation, gezeigt werden soll. Die Bedienerperson, d. h. der Verkäufer, benötigt diese hochwertige Darstellung nicht. Er muß lediglich die Präsentation verfolgen können und bei Eingaben, z. B. persönliche Daten des Kunden, die Richtigkeit der Eingabe überprüfen können.

Da der zweite Bildschirm auch eine geringere Auflösung benötigt, ist er kostengünstiger als der Hauptbildschirm, wodurch die Gesamtkosten gesenkt werden können.

Nach Anspruch 4 ist die Tastatur auch abnehmbar, wobei die Kommunikation mit dem Rechner über eine drahtlose Datenschnittstelle erfolgt. Diese Option ist dann von Vorteil, wenn die Präsentationsvorrichtung z. B. nahe beim Kunden stehen soll.

Eine Ausführungsform der Erfindung wird an Hand der beigefügten schematischen Zeichnungen erläutert:

**Fig. 1** zeigt eine perspektivische Seitenansicht der Erfindung bei herkömmlicher Verwendung als Laptop.

**Fig. 2** zeigt eine perspektivische Seitenansicht der Erfindung bei Verwendung als Präsentationsvorrichtung.

Die **Fig. 1** zeigt eine perspektivische Seitenansicht der Erfindung bei herkömmlicher Verwendung als Laptop mit einer Tastatur **1**, einem Hauptbildschirm **2**, der mit Gelenken **3** an dem Grundkörper **4** des Laptop schwenkbar befestigt ist. Es ist auch möglich, falls gewünscht, die Tastatur herauszuschieben.

Die **Fig. 2** zeigt die Erfindung bei Verwendung als Präsentationsvorrichtung. Die Tastatur **1** ist herausgeschoben, so daß die Bedienerperson auf den zweiten Bildschirm **5** sehen kann. Der Hauptbildschirm **2** ist umgeklappt, wie mit dem Doppelpfeil gezeigt. Damit der Kunde das Bild des Hauptbildschirms richtig betrachten kann, wird es elektronisch um 180 Grad gedreht.

## Patentansprüche

1. Präsentationsvorrichtung, die als Laptop-Computer mit einer Tastatur (**1**) ausgebildet ist und ein aufklappbarer Hauptbildschirm (**2**) mit Gelenken (**3**) an dem Grundkörper (**4**) des Laptop-Computers schwenkbar befestigt ist, **dadurch gekennzeichnet**, daß
  - die Tastatur (**1**) im Grundkörper (**4**) verschieb-

bar ist,

– unter der verschiebbaren Tastatur (1) ein zweiter Bildschirm (5) vorgesehen ist,

die Gelenke (3) einen Schwenkradius von über 220 Grad aufweisen und

– eine Steuereinrichtung vorgesehen ist,

die das Bild auf dem Hauptbildschirm (2) um 180 Grad dreht, wenn der Hauptbildschirm (2) über 220 Grad geschwenkt ist.

2. Präsentationsvorrichtung nach Anspruch 1, dadurch gekennzeichnet, daß die Steuereinrichtung eine Schwenkwinkelerkennungsvorrichtung aufweist, die veranlaßt, daß bei einem vorbestimmten Schwenkwinkel des Hauptbildschirms (2), das Bild des Hauptbildschirms um 180 Grad gedreht wird und gleichzeitig der zweite Bildschirm (5) eingeschaltet wird.

3. Präsentationsvorrichtung nach Anspruch 1 und 2, dadurch gekennzeichnet, daß der zweite Bildschirm (5) ein einfarbiger Bildschirm ist.

4. Präsentationsvorrichtung nach einem der vorhergehenden Ansprüche, dadurch gekennzeichnet, daß die Tastatur (1) auch abnehmbar ist, wobei die Kommunikation mit dem Rechner über eine drahtlose Datenschnittstelle erfolgt.

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Hierzu 1 Seite(n) Zeichnungen

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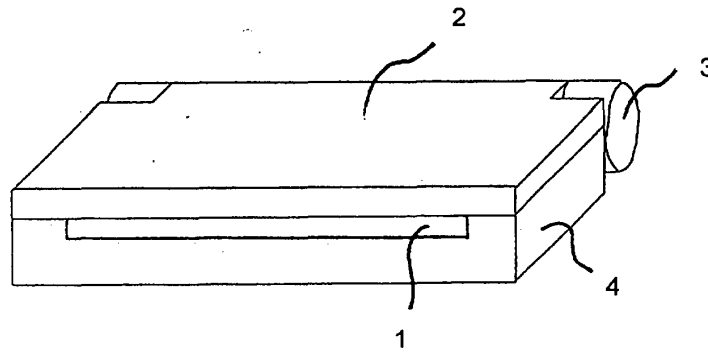


Fig. 1

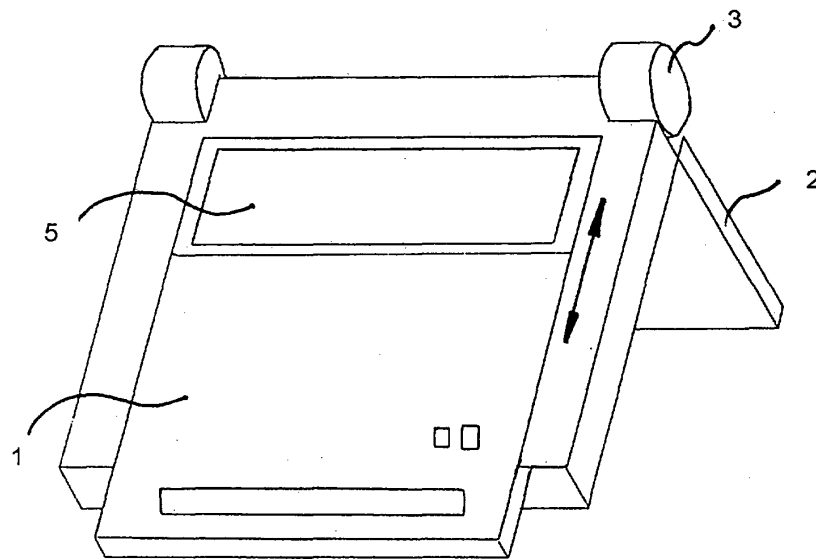


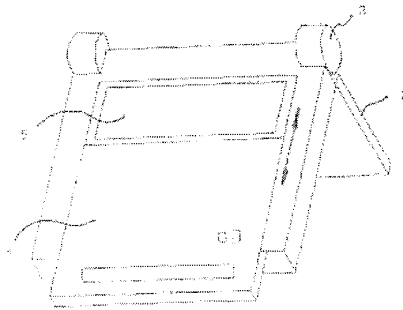
Fig. 2

**Presentation device has lap-top, main and second screens, controller that rotates image on main screen by 180 degrees when main screen is pivoted by 220 degrees**

**Publication number:** DE19952486 (A1)  
**Publication date:** 2001-05-03  
**Inventor(s):** SCHWEIZER JOACHIM [DE] +  
**Applicant(s):** SCHWEIZER JOACHIM [DE]; RUETTIGER MAXIMILIAN [DE]; JAENICKE VOLKMAR [DE] +  
**Classification:**  
 - **international:** G06F1/16; G06F1/16; (IPC1-7): G06F1/16; G09F27/00; G09F9/30  
 - **European:** G06F1/16P2; G06F1/16P2S5; G06F1/16P2S6  
**Application number:** DE19991052486 19991029  
**Priority number(s):** DE19991052486 19991029

**Abstract of DE 19952486 (A1)**

The device is in the form of a lap-top computer with a removable keyboard (1), whereby the keyboard has a separate power supply and is coupled to the lap-top via a wireless link. A hinged main display screen (2) is pivotably attached to the lap-top's base body (4) via joints (3) and able to pivot over more than 200 degrees. A second screen is arranged in the base body beneath the removable keyboard. A controller rotates the image on the screen by 180 degrees when the main screen is pivoted by 220 degrees. Independent claims are also included for a notebook with a keyboard and for a flat screen unit for a notebook.



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## Result Page

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The invention refers to a presentation device, which is predominant designed for a customer advisory service in the field service.

If a consulting and/or. Sales talk with the customer performed becomes, is often not the spatial ratios not for an optimum presentation appropriate, D. h., modern presentation means, like overhead projector with process card display or video projector, cannot become inserted. If z. B. Insurance agents or Finanzdienstleister their customers in the home visit, are not it not possible to set up an adjusting wall. Such spatial changes are rejected by most customers. It is usual to note calculations and diagrams on a sheet of paper and to turn the sheet half to the customer, so that it can follow the complementary written explanation. It is also possible, a laptop computer to use, which brings problems however to that extent, since the vendor and the customer must regard a common relative small screen.

It has itself shown that the presentation with a computer offers a number of advantages. By means of particular software z can. B. most diverse variants of a life insurance calculated and immediately graphic, D. h. easy understandably and therefore convincing, shown become. Since this presentation technology becomes continuous further developed and of the customer as very comfortable accepted, the urgent need, also for the small presentation employment locally, exists D. h. in the home of the customer or in a small office space to use this technique.

Modern small computers, like z. B. small notebooks, offer the possibility, also program and memory-intensive, D in principle due to their high arithmetic performance. h. fastidious to process presentation software. Thus a convincing presentation would locally be possible also with the customer, if the o. g. Problem of the spatial limitations dissolved will could.

In addition 94 06 985 proposed became to couple at a conventional laptop with flat screen an other flat screen over an articulation in the German GBM so that two can see themselves opposite seated persons in each case on a screen. This device is pedantic in principle for the intended application appropriate, however in the operation. It exists therefore the need after an other improvement of the presentation quality, after an other reduction of costs, after a weight reduction or after an improved operability.

The object of the invention exists in the provision of a computer-aided presentation device, which is to be served also bottom very much restrained spatial ratios a convincing presentation possible and simple and convenient.

The object becomes according to claim 1 dissolved with devices. The presentation device is a conventional laptop computer with a displaceable keyboard and a pivotable main screen, which rest upon in the folded state on the basic body laptop computers and which keyboard takes off.

The bottom keyboard in the basic body an other screen arranged, which is likewise connected to the laptop computer, is according to invention. Further the articulation of the pivotable main screen is so formed that the main screen at least over approx. 220 is degree more pivotable.

The presentation device can become as conventional laptop computers used, whereby alternatively the keyboard can become so shifted, so that the screen located under it becomes more visible.

If a second person a presentation is to become shown, the main screen is turned down around at least 220 degree or more, so that the second person can see now on the main screen. By control means the image of the main screen becomes around 180 rotated degree.

The operator person steers the presentation by means of the keyboard, mouse or other input mechanisms and the tracked flow of the presentation on the second screen, the control display.

Switching on of the second screen on and turning the image of the main screen down can be made alternatively by means of switches or by keyboard entry manual. Convenient one is however according to claim 2 automatic switching on and rotation of the image on, by z. B. in the articulation an angle of traverse recognition device arranged is, those caused that with a pre-determined pivoting angle of the main screen, the image of the main screen rotated and also the second screen are switched on.

According to claim one 3 is the second screen a monochrome screen. This development is favourable if z. B. on the main screen the customer an expensive colored diagram, D. h. z. B. a responsive and convincing presentation, shown will is. The operator, D. h. the vendor, required this high-quality illustration not. It must be able to only pursue the presentation and with inputs, z. B. personal data of the customer, the correctness of the input to examine can.

Since the second screen also a smaller resolution required, is he more inexpensive than the main screen, whereby the total costs lowered to become to be able.

According to claim 4 is is also more detachable the keyboard, whereby the communication with the computer over a wireless data interface made. This option is from advantage if the presentation device z. B. close with the customer to stand is.

An embodiment of the invention becomes explained on the basis the accompanying schematic designs:

Fig. 1 shows an isometric side view of the invention with conventional use as laptop.

Fig. an isometric side view of the invention shows 2 with use as presentation device.

The Fig. 1 shows an isometric side view of the invention with conventional use as laptop with a keyboard 1, a main screen 2, which is with articulations 3 at the basic body 4 laptop of the pivotally mounted. It is also possible, if desired, to shift the keyboard out.

The Fig. the invention shows 2 with use as presentation device. The keyboard 1 is shifted out, so that the operator can see 5 on the second screen. The main screen 2 turned down, as with the double arrow shown. So that the customer can regard the image of the main screen proper, it becomes electronic around 180 rotated degree.

## Result Page

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1. Presentation device, which is formed as laptop computers with a keyboard (1) and a opening by hinges main screen (2) with articulations (3) at the basic body (4) of the laptop computer is pivotally mounted, characterised in that

- the keyboard (1) in the basic body (4) is more displaceable,
- is the bottom displaceable keyboard (1) a second screen (5) provided, the articulations (3) a Schwenkradius of over 220 degree exhibit and

- is control means provided, those the image on the main screen (2) 180 degree, if the main screen (2) over 220 is degree pivoted.

2. Presentation device according to claim 1, characterised in that the control means an angle of traverse recognition device exhibits, which caused that with a pre-determined pivoting angle of the main screen (2), the image of the main screen is switched on by 180 degree rotated will and the simultaneous second screen (5).

3. Presentation device according to claim 1 and 2, characterised in that the second screen (5) a monochrome screen is.

4. Presentation device after one of the preceding claims, characterised in that the keyboard (is 1) also more detachable, whereby the communication with the computer over a wireless data interface made.

## Bibliography

### DWPI Title

Presentation device has lap-top, main and second screens, controller that rotates image on main screen by 180 degrees when main screen is pivoted by 220 degrees

### Original Title

Presentation device

## Abstract

No Abstract exists for this Record

## Family

### Family

Expand INPADOC Family (12)

## Claims

### Claims

Collapse All Claims (4)

#### Claims (German)

1. Presentation device, those as laptop computers with a keyboard (1) and a opening by hinges main screen is trained (2) with joints (3) at the base (4) is tiltable fastened the laptop computer, **thus characterized**that
  - - the keyboard (1) in the base (4) is adjustable,
  - - under the adjustable keyboard (1) a second screen (5) is intended,the joints (3) a Schwenkradius from over 220 degrees exhibit and
  - - is intended control equipment,those the picture on the main screen (2) turns around 180 degrees, if the main screen (2) is swivelled over 220 degrees.
2. Presentation device according to requirement 1, by characterized that the control equipment exhibits an angle of traverse recognition device, which arranges that with a pre-determined angle of traverse of the main screen (2), the picture of the main screen around 180 degrees is turned and at the same time the second screen (5) one switches on.
3. Presentation device according to requirement 1 and 2, by characterized that the second screen (5) a in-colored screen is.
4. Presentation device after one of the preceding requirements, thereby characterized that the keyboard (1) is also removable, whereby communication with the computer is made by a wireless data interface.

## Description

### Background/ Summary

Collapse Background/Summary

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### Drawing Description

Collapse Drawing Description

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### Description

Collapse Description

The invention refers to a presentation device, which is conceived predominantly for a customer advisory service in the field service.

If a consulting and/or a sales talk is accomplished with the customer, spatial conditions are often not for an optimal presentation suitable, are called modern presentation means, like overhead projector with LC-display or video projector, cannot be used. If e.g. Insurance agents or financial service provider their customers in the apartment visit, are not it not possible to set up an adjusting wall. Such spatial changes are rejected by most customers. It is usual to note computations and diagrams on a sheet paper and to turn the sheet half to the customer, so that it can follow the supplementing written explanation. It is also possible to use a laptop computer which brings problems however to that extent, since the salesman and the customer must regard a relatively small screen together.

It was shown that the presentation with a computer offers a set of advantages. By means of special software e.g. most



diverse variants of a life insurance can be calculated and be represented immediately graphically, i.e. easily understandably and from there convincing. Since this presentation technology constantly develops themselves further and is accepted by the customer as very comfortable, the urgent need, also for the small presentation employment locally, exists i.e. in the apartment of the customer or in a small office space to use this technology.

Modern small computers, like e.g. small notebooks, offer the possibility, also program and memory-intensive, i.e. fastidious in principle due to their high arithmetic performance, of processing presentation software. Thus locally a convincing presentation would be possible also at the customer, if that could be solved above mentioned problem of the spatial restrictions.

In addition in the German GBM 94 06 985 one suggested coupling at a conventional laptop with flat screen a further flat screen over a joint so that two can see themselves opposite sitting persons in each case on a screen. This device is pedantic in principle for the intended application suitably, however in the operation. There is from there the need after a further improvement of the presentation quality, after a further reduction of costs, after a weight reduction or after an improved operability.

The task of the invention exists in the creation of a computer-aided presentation device, which is to be served a convincing presentation also under very much restrained spatial conditions made possible and simply and comfortably.

The task is solved with devices according to requirement 1. The presentation device is a conventional laptop computer with an adjustable keyboard and a tiltable main screen, which rest upon in the folded condition on the base the laptop computers and which keyboard takes off.

A further screen is according to invention arranged under the keyboard in the base, which is likewise attached to the laptop computer. Further the joint of the tiltable main screen is in such a way trained that the main screen is tiltable around approx. 220 degrees at least.

The presentation device can be used as conventional laptop computers, whereby the keyboard can be shifted alternatively in such a way, so that the screen which is under it becomes visible.

If a second person a presentation is to be demonstrated, the main screen is turned down around at least 220 degrees or more, so that the second person can see now on the main screen. The picture of the main screen by control equipment 180 degrees.

The operator person steers the presentation by means of the keyboard, mouse or other input mechanisms and pursues the expiration of the presentation on the second screen, the control display.

Switching on of the second screen on and turning the picture of the main screen down can be made alternatively by means of switches or by keyboard entry manually. Appropriately however automatic switching on and rotation of the picture on, as e.g. in the joint an angle of traverse recognition device is arranged, are those compelled in accordance with requirement 2 that with a pre-determined angle of traverse of the main screen, the picture of the main screen is turned and also the second screen is switched on.

According to requirement 3 the second screen is a in-colored screen. This further training is favorable if e.g. on the main screen the customer a complex colored diagram, i.e. e.g. a responding and convincing presentation are to be demonstrated. The control person, i.e. the salesman, do not need this high-quality representation. It must be able to only pursue the presentation and during inputs, e.g. personal data of the customer, the correctness of the input to examine be able.

Since the second screen needs also a smaller dissolution, it is more economical than the main screen, whereby the total costs can be lowered.

According to requirement 4 is also removable the keyboard, whereby communication with the computer is made by a wireless data interface. This option is of advantage if the presentation device e.g. close is to stand at the customer.

An execution form of the invention is described on the basis the attached schematic designs:

**Fig. 1** shows a perspective side view of the invention with conventional use as laptop.

**Fig. 2** a perspective side view of the invention shows with use as presentation device.

Those **Fig. 1** shows a perspective side view of the invention with conventional use as laptop with a keyboard **1**, a main screen **2**, that with joints **3** at the base **4** the laptop is tiltable fastened. It is also possible, if desired, to shift the keyboard out.

Those **Fig. 2** the invention shows with use as presentation device. The keyboard **1** is shifted out, so that the control person on the second screen **5** to see can. The main screen **2** turned down, as shown with the double arrow. So that the customer can regard the picture of the main screen correctly, it electronically 180 degrees.

## Citations

### Citation

[+](#) Expand Citing Patents (3)

Cited Patents (0)

Cited Non-patents (0)

(19) **KOREAN INTELLECTUAL PROPERTY OFFICE**

**KOREAN PATENT ABSTRACTS**

(11)Publication number: **1020000036647**  
(43)Date of publication of application: **05.07.2000** **A**

(21)Application number: **1020000015117** (71)Applicant: **ITCEN COMMUNICATION CO., LTD.**  
(22)Date of filing: **24.03.2000** (72)Inventor: **YOO, U YEONG**  
(30)Priority: **..**  
(51)Int. Cl **G06F 17/30**

(54) **SEARCH METHOD USING IMAGE INFORMATION**

(57) Abstract:

PURPOSE: A search method using image information is provided for a convenient search technique by enabling users to instinctively find necessary information among searched results of search engines displayed in image.

CONSTITUTION: A search method using image information is consisted of the three steps. A first step is for a user to connect to a site of search engine so as to search information. A second step is for the user to input query. A third step is for the search engine to display relevant image information after finding search results related to the query. A home page or a web page of a web site displayed as a search result, and specific icon, banner, or banner or icon using motion picture can be the image information. The home page is displayed as a small size icon made of itself and so, users can instinctively know whether the home page contains the needed information or not by seeing the icon. The site of a search engine should build an image database about information to be displayed as search result in advance, and shows image information, sometimes with text information, in case that there is a search request.



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Legal Status

(19) 대한민국특허청(KR)  
(12) 공개특허공보(A)

(51) Int. Cl. <sup>7</sup> G06F 17/30	(11) 공개번호 (43) 공개일자	특2000-0036647 2000년07월05일
(21) 출원번호	10-2000-0015117	
(22) 출원일자	2000년03월24일	
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심사청구 : 있음

(54) 이미지 정보를 이용한 검색방법

요약

본 발명은 인터넷상에서 검색엔진을 이용하여 원하는 정보를 검색한 경우, 검색결과를 단순한 텍스트가 아닌 이미지 정보를 디스플레이 함으로써 시각적 효과에 의해 보다 효율적인 검색이 가능한 이미지 검색 시스템에 관한 것이다.

본 발명의 이미지 정보를 이용한 검색방법은 인터넷상에서 정보를 검색하고자 하는 사용자가 검색엔진 사이트에 접속하고, 상기 사용자가 검색하고자 하는 검색어를 입력하고, 검색엔진 서버에서 상기 검색어에 해당하는 검색결과를 찾아 해당 이미지 정보를 출력하고, 출력된 이미지 정보 중의 어느 하나를 클릭하여 해당 웹페이지로 접속하는 단계로 구성된다. 상기 이미지 정보는 해당 웹사이트의 홈페이지나 특정의 홈페이지가 될 수도 있고, 특정한 아이콘이나 배너 또는 동영상에 이용한 배너나 아이콘이 될 수도 있다.

본 발명의 이미지 정보를 이용한 검색방법을 이용할 경우, 단순한 텍스트가 아닌 이미지 정보를 출력함으로써 시각적 효과에 의해 검색결과를 보다 신속하고 직관적으로 파악할 수 있어 검색이 용이한 장점이 있다.

도면도

도1

검색서

검색결과 화면 출력

도1은 본 발명의 이미지 정보를 이용한 검색방법에 의해 출력된 검색결과 화면의 일 예이다.

검색결과 상세화면 출력

발명의 목적

발명이 속하는 기술 및 그 분야의 종래기술

본 발명은 이미지 검색 시스템이다. 보다 구체적으로, 인터넷상에서 검색엔진을 이용하여 원하는 정보를 검색한 경우, 검색결과를 단순한 텍스트가 아닌 이미지 정보를 디스플레이 함으로써 시각적 효과에 의해 보다 효율적인 검색이 가능한 이미지 검색 시스템에 관한 것이다.

인터넷상에서 원하는 정보를 찾기 위해 통상적으로 검색엔진을 이용한다. 사용자가 특정한 검색엔진 사이트에 접속한 후 찾고자 하는 정보와 관련된 키워드를 입력하면 검색엔진에서 키워드와 관련된 정보를 찾아서 화면상에 출력하게 된다. 그러나, 종래의 검색엔진은 검색결과를 단순히 텍스트로만 출력하고 있으며, 출력결과도 상기 검색엔진에 등록된 문장이나, 웹페이지의 타이틀과 같은 정보만을 출력할 뿐이다.

그러나, 최근에는 인터넷의 이용자가 폭발적으로 증가하고 인터넷상의 정보 또한 폭발적으로 증가하면서 검색엔진을 이용하여 자료를 검색한다는 것도 그다지 용이하지 않게 되었다. 즉, 내가 원하는 정보만을 검색할 수 있어야 하나, 너무 많은 검색결과가 출력됨으로써 정작 내가 원하는 정보를 찾기가 쉽지 않다. 또한, 텍스트로 출력된 검색결과만을 보고서 내가 원하는 정보인지를 알기 어려운 경우가 많으며 일일이 모든 검색결과를 조회해 볼 수밖에 없고 원하는 정보를 찾는데 많은 시간과 노력을 필요로 하게

된다.

**발명이 이루고자하는 기술적 과제**

본 발명의 목적은 검색엔진의 검색결과를 이미지 정보로 출력함으로써 사용자가 검색결과 중에서 자신이 원하는 정보를 직관적으로 찾을 수 있어 검색이 용이한 검색방법을 제공하는 것이다.

**발명의 구성 및 작용**

본 발명의 이미지 정보를 이용한 검색방법은 인터넷상에서 정보를 검색하고자 하는 사용자가 검색엔진 사이트에 접속하고, 상기 사용자가 검색하고자 하는 검색어를 입력하고, 검색엔진 서버에서 상기 검색어에 해당하는 검색결과를 찾아 해당 이미지 정보를 출력하는 단계로 구성된다. 상기 이미지 정보는 해당 웹사이트의 홈페이지나 특정의 웹페이지가 될 수도 있고, 특정한 아이콘이나 배너 또는 동영상상을 이용한 배너나 아이콘이 될 수도 있다.

인터넷상에서 정보를 검색하고자 하는 사용자는 인터넷을 통해 특정 검색엔진 사이트에 접속한다. 상기 검색엔진 사이트에서 자신이 찾고자 하는 정보와 관련된 검색어를 입력하여 관련 정보를 출력할 것을 요청한다. 검색엔진 사이트에서는 입력된 검색어와 관련된 정보를 검색하여 다시 사용자에게 전송하여 사용자의 단말기로 출력하며, 이러한 일련의 검색엔진을 이용한 검색과정은 통상적으로 사용하는 것이다. 다만, 본 발명에서는 검색결과를 단순한 텍스트가 아닌 이미지 정보로 출력한다는 점에서 차이가 있다. 검색엔진 사이트에서는 검색결과로써 출력되기 위한 정보에 대한 이미지 데이터베이스를 사전에 구축해 놓으며, 해당 정보에 대한 검색요청이 있을 경우 상기 이미지 정보를 출력한다. 출력시 이미지와 함께 텍스트 정보를 출력할 수도 있다.

상기 이미지 정보는 해당 웹사이트의 홈페이지 화면이 될 수도 있고, 특정 아이콘이나 배너가 될 수도 있다. 웹사이트 홈페이지의 경우 사용자들이 상기 웹사이트 홈페이지만을 보더라도 그 웹사이트에서 어떠한 정보를 제공하고 있는지, 그 웹사이트가 사용자가 찾는 정보를 갖고 있는지 등에 대해서 직관적으로 알 수 있기 때문에 웹사이트 홈페이지 화면을 작은 크기로 아이콘화하여 디스플레이하는 것이다.

인터넷 웹사이트상에는 광고용으로 많은 아이콘이나 배너들이 링크되어 있다. 이러한 아이콘이나 배너들은 해당 아이콘이나 배너가 전달하고자 하는 내용을 그래픽으로 또는 동영상으로 함축적으로 표현하고 있어 사용자가 상기 아이콘이나 배너만을 보더라도 전달하고자 하는 내용을 직관적으로 파악할 수 있다. 따라서, 검색결과로써 이러한 아이콘이나 배너를 출력할 경우 사용자가 상기 아이콘이나 배너로부터 출력결과에 대한 내용을 직관적으로 파악할 수 있어 정보의 검색이 한결 용이해진다.

도 1은 본 발명의 이미지 정보를 이용한 검색방법에 의해 출력된 검색결과에 예이다. 검색결과는 이미지 정보와 텍스트가 함께 디스플레이되고 있으며, 이미지 정보는 검색결과에 해당하는 웹사이트의 홈페이지를 축소하여 디스플레이하고 있다. 이미지 정보와 함께 간단한 텍스트를 같이 부가함으로써 이미지 정보만으로 전달하기 어려운 정보를 함께 전달하며, 해당 웹사이트의 운영자나 소유자에 대한 정보와 해당 웹사이트에서 제공하는 정보 대한 간략한 요약정보가 디스플레이된다.

사용자는 검색결과중에서 자신이 원하는 정보가 있을 경우 그 이미지 정보나 텍스트 정보를 클릭하면 해당하는 웹사이트로 접속된다.

**발명의 효과**

본 발명의 이미지 정보를 이용한 검색방법을 이용할 경우, 단순한 텍스트가 아닌 이미지 정보를 출력함으로써 시각적 효과에 의해 검색결과를 보다 신속하고 직관적으로 파악할 수 있어 검색이 용이한 장점이 있다.

**(57) 청구의 범위**

**청구항 1**

인터넷상에서 정보를 검색하고자 하는 사용자가 검색엔진 사이트에 접속하고;  
상기 사용자가 검색하고자 하는 검색어를 입력하고;  
검색엔진 서버에서 상기 검색어에 해당하는 검색결과를 찾아 해당 이미지 정보를 출력하고; 그리고,  
사용자는 출력된 이미지 정보중의 어느 하나를 클릭하여 해당 웹페이지로 접속하는 단계;  
로 구성되는 것을 특징으로 하는 이미지 정보를 이용한 검색방법.

**청구항 2**

제1항에서, 상기 이미지 정보는 웹사이트의 홈페이지 화면, 특정 웹페이지 또는 그래픽 또는 동영상을 이용한 아이콘 또는 배너 중의 어느 하나인 것을 특징으로 하는 이미지 정보를 이용한 검색방법.

도면



PATENT COOPERATION TREATY

DOCKETED *da ppe 7 in*  
 DUE: *1/15 - Seaku lpt*

PCT

*6.3.09*  
*9.3.09*

From the INTERNATIONAL SEARCHING AUTHORITY

NOTIFICATION OF TRANSMITTAL OF  
 THE INTERNATIONAL SEARCH REPORT AND  
 THE WRITTEN OPINION OF THE INTERNATIONAL  
 SEARCHING AUTHORITY, OR THE DECLARATION *6.10.09*

To:  
 LOWRIE, LANDO & ANASTASI, LLP  
 Attn. Gates, Sarah M.  
 One Main Street, Eleventh Floor  
 Cambridge, Massachusetts 02142  
 ETATS-UNIS D'AMERIQUE

(PCT Rule 44.1)


Date of mailing  
 (day/month/year) 03/06/2009

Applicant's or agent's file reference  
 A2029-7001WO **FOR FURTHER ACTION** See paragraphs 1 and 4 below

International application No.  
 PCT/US2009/038599 International filing date  
 (day/month/year) 27/03/2009

Applicant  
 AQUENT, LLC

1.  The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.  
**Filing of amendments and statement under Article 19:**  
 The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):  
**When?** The time limit for filing such amendments is normally two months from the date of transmittal of the International Search Report.  
**Where?** Directly to the International Bureau of WIPO, 34 chemin des Colombettes  
 1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 338.82.70  
**For more detailed instructions, see the notes on the accompanying sheet.**
2.  The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.
3.  **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
  - the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
  - no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.
4. **Reminders**  
 Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.  
 The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.  
 Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.  
 In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.  
 See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the International Searching Authority  
 European Patent Office, P.B. 5818 Patentlaan 2,  
 NL-2280 HV Rijswijk  
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
 Fax: (+31-70) 340-3016

Authorized officer  
 Marja Brouwers

## NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the *PCT Applicant's Guide*, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions, respectively.

### INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report and the written opinion of the International Searching Authority, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only (see *PCT Applicant's Guide*, Volume I/A, Annexes B1 and B2).

The attention of the applicant is drawn to the fact that amendments to the claims under Article 19 are not allowed where the International Searching Authority has declared, under Article 17(2), that no international search report would be established (see *PCT Applicant's Guide*, Volume I/A, paragraph 296).

#### What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

#### When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

#### Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

#### How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Section 205(b)).

**The amendments must be made in the language in which the international application is to be published.**

#### What documents must/may accompany the amendments?

##### Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

**The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.**

## NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

**The following examples illustrate the manner in which amendments must be explained in the accompanying letter:**

1. [Where originally there were 48 claims and after amendment of some claims there are 51]:  
"Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]:  
"Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:  
"Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or  
"Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]:  
"Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

### **"Statement under article 19(1)" (Rule 46.4)**

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

**It must be in the language in which the international application is to be published.**

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

### **Consequence if a demand for international preliminary examination has already been filed**

If, at the time of filing any amendments and any accompanying statement, under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the time of filing the amendments (and any statement) with the International Bureau, also file with the International Preliminary Examining Authority a copy of such amendments (and of any statement) and, where required, a translation of such amendments for the procedure before that Authority (see Rules 55.3(a) and 62.2, first sentence). For further information, see the Notes to the demand form (PCT/IPEA/401).

If a demand for international preliminary examination is made, the written opinion of the International Searching Authority will, except in certain cases where the International Preliminary Examining Authority did not act as International Searching Authority and where it has notified the International Bureau under Rule 66.1b/s(b), be considered to be a written opinion of the International Preliminary Examining Authority. If a demand is made, the applicant may submit to the International Preliminary Examining Authority a reply to the written opinion together, where appropriate, with amendments before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later (Rule 43bis.1(c)).

### **Consequence with regard to translation of the international application for entry into the national phase**

The applicant's attention is drawn to the fact that, upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see the *PCT Applicant's Guide*, Volume II.



PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference A2029-7001WO	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2009/038599	International filing date (day/month/year) 27/03/2009	(Earliest) Priority Date (day/month/year) 01/04/2008
Applicant AQUENT, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of:

- the international application in the language in which it was filed
- a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b.  This international search report has been established taking into account the rectification of an obvious mistake authorized by or notified to this Authority under Rule 91 (Rule 43.6bis(a)).

c.  With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2.  Certain claims were found unsearchable (See Box No. II)

3.  Unity of invention is lacking (see Box No III)

4. With regard to the title,

- the text is approved as submitted by the applicant
- the text has been established by this Authority to read as follows:

5. With regard to the abstract,

- the text is approved as submitted by the applicant
- the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the drawings,

- a. the figure of the drawings to be published with the abstract is Figure No. 4
  - as suggested by the applicant
  - as selected by this Authority, because the applicant failed to suggest a figure
  - as selected by this Authority, because this figure better characterizes the invention
- b.  none of the figures is to be published with the abstract

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> INV. G06F1/16		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols) G06F H04M		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 199 52 486 A1 (SCHWEIZER JOACHIM [DE]; RUETTIGER MAXIMILIAN [DE]; JAENICKE VOLKMAR [D] 3 May 2001 (2001-05-03) column 1, line 56 - column 2, line 60; figures 1,2	1-26
X	US 2007/182663 A1 (BIECH GRANT S [CA]) 9 August 2007 (2007-08-09) paragraphs [0019] - [0071]; figures 1,2	1-26
A	EP 0 588 210 A (HITACHI LTD [JP]) 23 March 1994 (1994-03-23) column 3, line 49 - column 12, line 12; figures 1-5	1, 16, 18, 21, 23
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents :		
*A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed		*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&* document member of the same patent family
Date of the actual completion of the international search 27 May 2009		Date of mailing of the international search report 03/06/2009
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016		Authorized officer Arranz, José

Information on patent family members

International application No.

PCT/US2009/038599

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 19952486	A1	03-05-2001	NONE
US 2007182663	A1	09-08-2007	NONE
EP 0588210	A	23-03-1994	DE 69331299 D1 24-01-2002
			DE 69331299 T2 14-08-2002
			JP 3268467 B2 25-03-2002
			JP 6090200 A 29-03-1994
			US 5436954 A 25-07-1995

PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY  
(PCT Rule 43bis.1)

To:

see form PCT/ISA/220

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/US2009/038599

International filing date (day/month/year)  
27.03.2009

Priority date (day/month/year)  
01.04.2008

International Patent Classification (IPC) or both national classification and IPC  
INV. G06F1/16

Applicant  
AQUENT, LLC

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**


If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office  
P.B. 5818 Patentlaan 2  
NL-2280 HV Rijswijk - Pays Bas  
Tel. +31 70 340 - 2040  
Fax: +31 70 340 - 3016


Date of completion of  
this opinion

see form  
PCT/ISA/210

Authorized Officer

Arranz, José

Telephone No. +31 70 340-4870



**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2009/038599

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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of:
  - the international application in the language in which it was filed
  - a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2.  This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - a sequence listing
    - table(s) related to the sequence listing
  - b. format of material:
    - on paper
    - in electronic form
  - c. time of filing/furnishing:
    - contained in the international application as filed.
    - filed together with the international application in electronic form.
    - furnished subsequently to this Authority for the purposes of search.
4.  In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2009/038599

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	<u>6,7,14-24</u>
	No: Claims	<u>1-5,8-13,25,26</u>
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-26</u>
Industrial applicability (IA)	Yes: Claims	<u>1-26</u>
	No: Claims	

2. Citations and explanations

see separate sheet

**Re Item V.**

1 Reference is made to the following documents:

- D1: DE 199 52 486 A1 (SCHWEIZER JOACHIM [DE]; RUETTIGER MAXIMILIAN [DE]; JAENICKE VOLKMAR [D]) 3 May 2001 (2001-05-03)
- D2: US 2007/182663 A1 (BIECH GRANT S [CA]) 9 August 2007 (2007-08-09)
- D3: EP-A-0 588 210 (HITACHI LTD [JP]) 23 March 1994 (1994-03-23)

2 INDEPENDENT CLAIMS 1,25

2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.  
Document D1 discloses (the references in parentheses applying to this document):

a portable computer configurable between plurality of display modes including a laptop mode and an easel mode (Col.1, line 56 - Col.2, line 24), the portable computer comprising:

a display component including a display screen configured to display content (Fig.1);  
a base (Fig.1); and

a hinge assembly configured to rotatably couple the display component to the base (Col.1, line 56 - Col.2, line 24);

wherein the hinge assembly is configured to permit rotation of the display component about a single axis to configure the portable computer between the laptop mode and the easel mode (Col.1, line 56 - Col.2, line 24).

Consequently, D1 discloses all the features of claim 1.

2.2 A corresponding objection as raised in §2.1 applies, mutatis mutandis, to claim 25.

3 DEPENDENT CLAIMS 2-24, 26

Dependent claims 2-24, 26 do not contain any features which, in combination with

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/US2009/038599

the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, see documents D1-D3 and the corresponding passages cited in the search report.



Possible steps after receipt of the international search report (ISR) and written opinion of the International Searching Authority (WO-ISA)

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General information

For all international applications filed on or after 01/01/2004 the competent ISA will establish an ISR. It is accompanied by the WO-ISA. Unlike the former written opinion of the IPEA (Rule 66.2 PCT), the WO-ISA is not meant to be responded to, but to be taken into consideration for further procedural steps. This document explains about the possibilities.

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Amending claims under Art. 19 PCT

Within 2 months after the date of mailing of the ISR and the WO-ISA the applicant may file amended claims under Art. 19 PCT directly with the International Bureau of WIPO. The PCT reform of 2004 did not change this procedure. For further information please see Rule 46 PCT as well as form PCT/ISA/220 and the corresponding Notes to form PCT/ISA/220.

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Filing a demand for international preliminary examination

In principle, the WO-ISA will be considered as the written opinion of the IPEA. This should, in many cases, make it unnecessary to file a demand for international preliminary examination. If the applicant nevertheless wishes to file a demand this must be done before expiry of 3 months after the date of mailing of the ISR/ WO-ISA or 22 months after priority date, whichever expires later (Rule 54bis PCT). Amendments under Art. 34 PCT can be filed with the IPEA as before, normally at the same time as filing the demand (Rule 66.1 (b) PCT).

If a demand for international preliminary examination is filed and no comments/amendments have been received the WO-ISA will be transformed by the IPEA into an IPRP (International Preliminary Report on Patentability) which would merely reflect the content of the WO-ISA. The demand can still be withdrawn (Art. 37 PCT).

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Filing informal comments

After receipt of the ISR/WO-ISA the applicant may file informal comments on the WO-ISA directly with the International Bureau of WIPO. These will be communicated to the designated Offices together with the IPRP (International Preliminary Report on Patentability) at 30 months from the priority date. Please also refer to the next box.

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End of the international phase

At the end of the international phase the International Bureau of WIPO will transform the WO-ISA or, if a demand was filed, the written opinion of the IPEA into the IPRP, which will then be transmitted together with possible informal comments to the designated Offices. The IPRP replaces the former IPER (international preliminary examination report).

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Relevant PCT Rules and more information

Rule 43 PCT, Rule 43bis PCT, Rule 44 PCT, Rule 44bis PCT, PCT Newsletter 12/2003, OJ 11/2003, OJ 12/2003

<b>Electronic Acknowledgement Receipt</b>	
<b>EFS ID:</b>	8759320
<b>Application Number:</b>	12170939
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	1986
<b>Title of Invention:</b>	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS
<b>First Named Inventor/Applicant Name:</b>	Yves Behar
<b>Customer Number:</b>	37462
<b>Filer:</b>	Matthew H. Grady
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	L2039-700110
<b>Receipt Date:</b>	03-NOV-2010
<b>Filing Date:</b>	10-JUL-2008
<b>Time Stamp:</b>	13:24:03
<b>Application Type:</b>	Utility under 35 USC 111(a)

**Payment information:**

Submitted with Payment	no
------------------------	----

**File Listing:**

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Foreign Reference	L2039-7001WO_ISR.pdf	800254 28a3cb68083e407e2b70779e0c225d1d311b610e	no	12

**Warnings:**

**Information:**

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875					Application or Docket Number <b>12/170,939</b>		Filing Date <b>07/10/2008</b>		<input type="checkbox"/> To be Mailed		
<b>APPLICATION AS FILED – PART I</b>					SMALL ENTITY <input type="checkbox"/>		OR		OTHER THAN SMALL ENTITY		
(Column 1)		(Column 2)									
FOR	NUMBER FILED	NUMBER EXTRA			RATE (\$)	FEE (\$)	OR		RATE (\$)	FEE (\$)	
<input type="checkbox"/> BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>	N/A	N/A			N/A				N/A		
<input type="checkbox"/> SEARCH FEE <small>(37 CFR 1.16(k), (l), or (m))</small>	N/A	N/A			N/A				N/A		
<input type="checkbox"/> EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>	N/A	N/A			N/A				N/A		
TOTAL CLAIMS <small>(37 CFR 1.16(i))</small>	minus 20 =	*			X \$ =		OR		X \$ =		
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>	minus 3 =	*			X \$ =				X \$ =		
<input type="checkbox"/> APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).										
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>											
* If the difference in column 1 is less than zero, enter "0" in column 2.					TOTAL		OR		TOTAL		
<b>APPLICATION AS AMENDED – PART II</b>					SMALL ENTITY		OR		OTHER THAN SMALL ENTITY		
(Column 1)		(Column 2)		(Column 3)							
<b>AMENDMENT</b>	<b>11/03/2010</b>	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)
	Total <small>(37 CFR 1.16(i))</small>	* 24	Minus	** 21	= 3	X \$ =		OR		X \$52=	156
	Independent <small>(37 CFR 1.16(h))</small>	* 5	Minus	***5	= 0	X \$ =		OR		X \$220=	0
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>										
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>										
						TOTAL ADD'L FEE		OR		TOTAL ADD'L FEE	<b>156</b>
(Column 1)		(Column 2)		(Column 3)							
<b>AMENDMENT</b>		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)
	Total <small>(37 CFR 1.16(i))</small>	*	Minus	**	=	X \$ =		OR		X \$ =	
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus	***	=	X \$ =		OR		X \$ =	
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>										
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>										
						TOTAL ADD'L FEE		OR		TOTAL ADD'L 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.											
					Legal Instrument Examiner: /DIANE WILLIAMS/						

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
Row 1: 12/170,939, 07/10/2008, Yves Behar, A2029-700110, 1986
Row 2: 37462, 7590, 07/09/2010
Row 3: LANDO & ANASTASI, LLP, ONE MAIN STREET, SUITE 1100, CAMBRIDGE, MA 02142
Row 4: EXAMINER WILSON, ADRIAN S
Row 5: ART UNIT 2835, PAPER NUMBER
Row 6: NOTIFICATION DATE 07/09/2010, DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@LALaw.com
gengelso@LALaw.com

<b>Office Action Summary</b>	<b>Application No.</b> 12/170,939	<b>Applicant(s)</b> BEHAR ET AL.	
	<b>Examiner</b> ADRIAN S. WILSON	<b>Art Unit</b> 2835	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 10 July 2008.
- 2a)  This action is **FINAL**.                      2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 1-21 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-21 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on 06 November 2008 is/are: a)  accepted or b)  objected to by the Examiner.
  - Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  - Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a)  All    b)  Some \*    c)  None of:
      - 1.  Certified copies of the priority documents have been received.
      - 2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      - 3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO/SB/08)
  - Paper No(s)/Mail Date 10/01/2008, 12/18/2009.
- 4)  Interview Summary (PTO-413)
  - Paper No(s)/Mail Date. \_\_\_\_\_.
- 5)  Notice of Informal Patent Application
- 6)  Other: \_\_\_\_\_.

### DETAILED ACTION

1. Claims 1-21 have been considered for examination.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-10 and 12-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Aarras (US Publication 2006/0264243).
4. In re Claim 1, Aarras discloses a portable computer (See Aarras, para 0033) configurable between a plurality of display modes including a closed mode (Id. at Figure 1), a laptop mode (Id. at Figure 2) and an easel mode (Id. at Figure 3), the portable computer comprising: a display component 12 including a display screen 30; a base 14; a hinge assembly 16 at least partially housed within the base 14 and configured to pivotally couple the display component 12 to the base 14; wherein the display component 12 is rotatable about a longitudinal axis running along an interface between the component 12 and the base 14; wherein, in the closed mode (Figure 1), the display 30 is against the base 14; wherein rotating the component 12 about the axis up to 180 degrees from the closed mode configures the computer into the laptop mode (Figure 2); and wherein rotating the component 12 about the axis beyond 180 degrees from the closed mode configures the computer into the easel mode (Figure 3). See also, id. at para 0039 (disclosing a simpler hinge type that has a single axis of rotation).

5. In re Claim 12, Aarras discloses a portable computer (See *id.* at para 0033) comprising: a base 14; a display component 12 rotatably coupled to the base 14; and means for (i.e. the hinge assembly 16) rotating the component 12 in a single direction relative to the base 14 to configure the computer between a laptop mode (Figure 2) and an easel mode (Figure 3). See also, *id.* at para 0039 (disclosing a simpler hinge type that has a single axis of rotation).

6. In re Claim 13, Aarras discloses a portable computer (See *id.* at para 0033) configurable between a laptop mode (See Figure 2) and an easel mode (See Figure 3), the computer comprising: a display component 12; a base 14; and a hinge assembly 16 configured to rotatably couple the component 12 to the base 14; wherein the hinge 16 is configured to permit rotation of the component 12 about a single axis to configure the computer between the laptop mode and easel mode. See also, *id.* at para 0039 (disclosing a simpler hinge type that has a single axis of rotation).

7. In re Claim 19, Aarras discloses a method of automatically orienting content displayed on a portable computer (*Id.* at para 0033), the method comprising: rotating a display component 12 of the computer about an axis running along an interface between the component 12 and a base 14 of the computer; detecting (via sensor 46) a degree of rotation of the component 12 relative to the base 14; providing a signal (*Id.* at para 0038) representative of the degree of rotation (i.e. depending on which mode you are in) of the component 12 and automatically configuring an orientation, relative to the axis, of the content displayed on the computer responsive to the signal. See also, *id.* at para 0039 (disclosing a simpler hinge type that has a single axis of rotation).



8. In re Claim 21, Aarras discloses a portable computer (See *id.* at para 0033) comprising: a base unit 14; a display unit 12 including a display screen 30 configured to display content; an orientation sensor 46 which orients the content displayed (*id.* at para 0038) on the display screen 30 responsive to the orientation detected by the sensor 46.
9. In re Claim 2, Aarras discloses a display component 12 that is rotatable about an axis up to 320 degrees from a closed mode (Figure 1 to Figure 3).
10. In re Claim 3, Aarras discloses a display orientation module 24 that displays content on the display screen 30 in one of the plurality of orientations relative to the axis.
11. In re Claim 4, Aarras discloses a mode sensor 46 which detects a current display mode (Figures 1-3) of the computer; and wherein the display orientation module 24 displays content on the display screen 30 in an orientation dependent on the current display mode detected by the sensor 46.
12. In re Claim 5, Aarras discloses wherein the display orientation module 24 is configured to display the content in a first orientation (Figure 2) relative to the axis when the computer is in the laptop mode and in a second configuration (Figure 3) when the computer is in the easel mode. *Id.* at para 0038.
13. In re Claim 6, Aarras discloses a first orientation (Figure 2) that is 180 degrees relative a second orientation (Figure 3).
14. In re Claim 7, Aarras discloses a flat mode wherein the display component 12 is disposed at an angle of 180 degrees measured about the axis relative the base 14.

15. In re Claims 8 and 9, Aarras discloses a display component 12 with a first orientation (Figure 10), second orientation (Figure 9) and third orientation (Figure 7, 8), wherein the first orientation is 90 degrees relative to the second orientation. Aarras also discloses wherein the image displayed (i.e. 54) can be controlled (whether in a flat mode or a plurality of other modes) by a user input. *Id.* at para 0040-0044.

16. In re Claim 10, Aarras discloses a hinge assembly 16 that comprises multiple parallel axes and the display component 12 is configured to rotate about any of the axes as it moves between modes.

17. In re Claim 14, Aarras discloses an axis (about 44) that runs along an interface between the display component 12 and base 14. See also, *id.* at para 0039 (disclosing a simpler hinge type that has a single axis of rotation).

18. In re Claim 15, Aarras discloses a display component 12 that also comprises a display screen 30 configured to display content and a display orientation module 24 configured to control the content that is displayed on the screen 30; wherein the content displayed is configurable among a plurality of orientations relative to the rotation of the display component 12 about the axis.

19. In re Claims 16 and 18, Aarras discloses a plurality of orientations (See Figures 7-18); and a module 24 that automatically adjusts the content on the display 30 (via sensor 46) based on the orientation the computer is in (i.e. laptop mode, easel mode, etc).

20. In re Claim 17, Aarras discloses a display component 12 with a first orientation, second orientation and third orientation (See Figures 7-18), wherein the first orientation

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is 90 degrees relative to the second orientation and 180 degrees relative the third orientation.

21. In re Claim 20; Aarras discloses a sensor 46 that detects the orientation of the computer and send a signal to a module 24 which in turn changes the content or display image based on the orientation the computer is in. See id. paras 0038-0044. Aarras also discloses a display component 12 with a first orientation, second orientation and third orientation (See Figures 7-18), wherein the first orientation is 90 degrees relative to the second orientation and 180 degrees relative the third orientation.

***Claim Rejections - 35 USC § 103***

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aarras (US Publication 2006/0264243) in view of Rebeske (US Patent 6,295,038).

24. In re Claim 11, Aarras discloses all the limitations of Claim 1 above, but does not explicitly disclose a foot to stabilize the computer when in the easel mode. However, Rebeske discloses a computer with a display component 34 and a base 35 that is configurable in an easel mode (Rebeske, Figure 1) and is stabilized with a foot 42 that is disposed along a portion of the base 35. It would have been obvious to one having ordinary skill in the art of portable electronics at the time the invention was made to provide a stabilizing foot as taught by Rebeske, since Aarras does suggest that the

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computer 10 can be placed on a flat surface (See Figure 19) and could use additional stabilizing features (such as a lock in the hinge assembly 16) when in an easel mode.

Id. at para 0050.

### ***Conclusion***

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited on the PTO 892 Form attached disclose a portable computer that is similar to applicant's claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADRIAN S. WILSON whose telephone number is (571)270-3907. The examiner can normally be reached on Mon.-Thu. 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayprakash Gandhi can be reached on (571) 272-3740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Adrian S Wilson  
Examiner  
Art Unit 2835

Asw

/Jayprakash N Gandhi/  
Supervisory Patent Examiner, Art Unit 2835

<b>Notice of References Cited</b>	Application/Control No. 12/170,939	Applicant(s)/Patent Under Reexamination BEHAR ET AL.	
	Examiner ADRIAN S. WILSON	Art Unit 2835	Page 1 of 2

**U.S. PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification	
*	A	US-5,790,371 A	08-1998	Latocha et al.	361/679.32
*	B	US-5,900,848 A	05-1999	Haneda et al.	345/1.1
*	C	US-5,987,704 A	11-1999	Tang, John G.	16/354
*	D	US-6,005,767 A	12-1999	Ku et al.	361/679.27
*	E	US-6,222,507 B1	04-2001	Gouko, Junichi	345/1.1
*	F	US-6,266,236 B1	07-2001	Ku et al.	361/679.27
*	G	US-6,275,376 B1	08-2001	Moon, Joung-Nam	361/679.06
*	H	US-6,295,038 B1	09-2001	Rebeske, Carlton S.	345/1.1
*	I	US-6,302,612 B1	10-2001	Fowler et al.	403/76
*	J	US-6,327,482 B1	12-2001	Miyashita, Toshikazu	455/566
*	K	US-2002/0005818 A1	01-2002	Bruzzone, Raul Alberto	345/6
*	L	US-2002/0021258 A1	02-2002	Koenig, Eric	345/1.1
*	M	US-6,628,267 B2	09-2003	Karidis et al.	345/168

**FOREIGN PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
N					
O					
P					
Q					
R					
S					
T					

**NON-PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)			
U					
V					
W					
X					

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<b>Notice of References Cited</b>	Application/Control No. 12/170,939	Applicant(s)/Patent Under Reexamination BEHAR ET AL.	
	Examiner ADRIAN S. WILSON	Art Unit 2835	Page 2 of 2

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,659,516 B2	12-2003	Wang et al.	292/251.5
*	B	US-6,771,494 B2	08-2004	Shimano, Kenji	361/679.06
*	C	US-6,819,304 B2	11-2004	Branson, Michael John	345/1.3
*	D	US-6,829,140 B2	12-2004	Shimano et al.	361/679.09
*	E	US-6,859,219 B1	02-2005	Sall, Susan R.	345/1.1
*	F	US-7,061,472 B1	06-2006	Schweizer et al.	345/168
*	G	US-7,138,962 B2	11-2006	Koenig, Eric	345/1.3
*	H	US-2006/0268500 A1	11-2006	Kuhn, Benjamin J.	361/683
*	I	US-2006/0264243 A1	11-2006	Aarras, Mikko	455/566
*	J	US-2007/0182663 A1	08-2007	Biech, Grant Steven	345/001.1
*	K	US-7,428,142 B1	09-2008	Ligtenberg et al.	361/679.55
*	L	US-2008/0284738 A1	11-2008	HOVDEN et al.	345/173
*	M	US-2009/0275366 A1	11-2009	Schilling, Donald L.	455/566


**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
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	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<b>Index of Claims</b> 	<b>Application/Control No.</b> 12170939	<b>Applicant(s)/Patent Under Reexamination</b> BEHAR ET AL.
	<b>Examiner</b> ADRIAN S WILSON	<b>Art Unit</b> 2835

✓	<b>Rejected</b>
=	<b>Allowed</b>

-	<b>Cancelled</b>
÷	<b>Restricted</b>


N	<b>Non-Elected</b>
I	<b>Interference</b>

A	<b>Appeal</b>
O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE								
Final	Original	07/01/2010								
	1	✓								
	2	✓								
	3	✓								
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	16	✓								
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	19	✓								
	20	✓								
	21	✓								



<b>Search Notes</b>  	<b>Application/Control No.</b>  12170939	<b>Applicant(s)/Patent Under Reexamination</b>  BEHAR ET AL.
	<b>Examiner</b>  ADRIAN S WILSON	<b>Art Unit</b>  2835

SEARCHED			
Class	Subclass	Date	Examiner
361	679.21, 679.26, 679.27	07/01/2010	asw
455	575.1-575.4	07/01/2010	asw
345	168	07/01/2010	asw

SEARCH NOTES		
Search Notes	Date	Examiner
inventor and assignee search	07/01/2010	asw
East Search	07/01/2010	asw

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

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**BIB DATA SHEET**
**CONFIRMATION NO. 1986**

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.	
12/170,939	07/10/2008	713	2835	A2029-700110	
<b>APPLICANTS</b> Yves Behar, Oakland, CA; Joshua Morenstein, San Francisco, CA; Christopher Hibmacronan, Oakland, CA; Naoya Edahiro, San Francisco, CA; Matthew David Day, San Francisco, CA;					
<b>** CONTINUING DATA *****</b> This appln claims benefit of 61/041,365 04/01/2008					
<b>** FOREIGN APPLICATIONS *****</b>					
<b>** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **</b> 08/15/2008					
Foreign Priority claimed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 35 USC 119(a-d) conditions met <input type="checkbox"/> Yes <input type="checkbox"/> No Verified and Acknowledged <u>/ADRIAN S WILSON/</u> <small>Examiner's Signature</small>	<input type="checkbox"/> Met after Allowance <small>Initials</small>	<b>STATE OR COUNTRY</b> CA	<b>SHEETS DRAWINGS</b> 25	<b>TOTAL CLAIMS</b> 21	<b>INDEPENDENT CLAIMS</b> 5
<b>ADDRESS</b> LANDO & ANASTASI, LLP ONE MAIN STREET, SUITE 1100 CAMBRIDGE, MA 02142 UNITED STATES					
<b>TITLE</b> PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS					
<b>FILING FEE RECEIVED</b> 1712	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit			

## EAST Search History

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
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L5	1	12/170939.app.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 13:55
L6	45	"wells fargo".as.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 13:55
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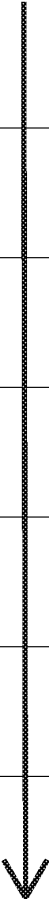
L8	2236885	sensor or detector	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:31
L9	234059	laptop or "notebook computer" or "portable computer"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:31
L10	4561	l7 same l8	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:31
L11	692	l10 and l9	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:31
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L17	0	kilpatrick,ii-thomas.in. or kilpatrick,ii- thomas-e.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 14:37
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L19	2969	345/168.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	ON	2010/07/01 18:24
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939
	Filing Date		2008-07-10
	First Named Inventor	Yves Behar	
	Art Unit	<del>2115</del> 2835	
	Examiner Name	<del>Not Yet Assigned</del> Adrian Wilson	
	Attorney Docket Number	A2029-700110	

U.S. PATENTS							Remove
Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	
/A.W./	1	4939514		1990-07-03	Shinichi Miyazaki		
	2	5200913		1993-04-06	Jeff C. Hawkins et al.		
	3	5268817		1993-12-07	Shigenori Miyagawa et al.		
	4	5796575		1998-08-18	Sergey Gary Podwalny et al.		
	5	5949643		1999-09-07	Jeffrey Batio		
	6	5987704		1999-11-23	John G. Tang		
	7	6005767		1999-12-21	Edmund Ku et al.		
	8	6223393	B1	2001-05-01	Eric Andrew Knopf		

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939	
	Filing Date		2008-07-10	
	First Named Inventor	Yves Behar		
	Art Unit	<del>2445</del> 2835		
	Examiner Name	<del>Not Yet Assigned</del> Adrian Wilson		
	Attorney Docket Number	A2029-700110		

/A.W./	9	6262885		2001-07-17	Philip George Emma et al.	
	10	6266236	B1	2001-07-24	Edmund Ku et al.	
	11	6275376		2001-08-14	Joung-Nam Moon	
	12	6343006		2002-01-29	Jerry Moscovitch et al.	
	13	6377444		2003-04-23	Scott D. Price et al.	
	14	6510049	B2	2003-01-21	John B. Rosen	
	15	6628267	B2	2003-09-03	John Peter Karidis et al.	
	16	6697055	B1	2004-02-24	Edward Bullister	
	17	6771494	B2	2004-08-03	Kenji Shimano	
	18	6788527	B2	2004-09-07	Paul J. Doczy et al.	
	19	6829140	B2	2004-12-07	Kenji Shimano et al.	

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939	
	Filing Date		2008-07-10	
	First Named Inventor	Yves Behar		
	Art Unit		<del>2445</del> 2835	
	Examiner Name	<del>Not Yet Assigned</del> Adrian Wilson		
Attorney Docket Number		A2029-700110		

/A.W./	20	6944012	B2	2005-09-13	Paul J. Doczy et al.	
↓	21	6963485	B2	2005-11-08	Seung-man Hong	
	22	7072179	B1	2006-07-04	Michael A. Curran et al.	
	23	7239508	B2	2007-07-03	David A. Ferrucci	
	24	D416003		1999-11-02	Sonja Sciefer et al.	

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**U.S.PATENT APPLICATION PUBLICATIONS**

Examiner Initial*	Cite No	Publication Number	Kind Code <sup>1</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

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**FOREIGN PATENT DOCUMENTS**

Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup> i	Kind Code <sup>4</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
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**NON-PATENT LITERATURE DOCUMENTS**



<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939
	Filing Date		2008-07-10
	First Named Inventor	Yves Behar	
	Art Unit	<del>2445</del> 2835	
	Examiner Name	<del>Not Yet Assigned</del> Adrian Wilson	
Attorney Docket Number		A2029-700110	

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>5</sup>
/A.W./	1	http://laptop.org/en/laptop/start/ebook.shtml accessed on September 29, 2008	<input type="checkbox"/>

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Examiner Signature	/Adrian Wilson/	Date Considered	07/01/2010
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Doc code :IDS

Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (09-08)

Approved for use through 10/31/2008. OMB 0651-0031

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939	
	Filing Date		2008-07-10	
	First Named Inventor	Yves Behar		
	Art Unit	2445 2835		
	Examiner Name	<del>Not Yet Assigned</del> Adrian Wilson		
	Attorney Docket Number	A2029-700110		

U.S. PATENTS							Remove
Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	
/A.W./	1	3468576		1969-09-23	G. E. Beyer et al.		
	2	5825352		1998-10-20	Stephen J. Bisset et al.		
	3	5841631		1998-11-24	Seong S. Shin et al.		
	4	6323846	B1	2001-11-27	Wayne Westerman et al		
	5	6659516	B2	2003-12-09	Shyune-Yang Wang et al.		
	6	7250207	B1	2007-07-31	Gary W. Heal et al.		
	7	7061472	B1	2006-06-13	Schweizer et al.		
	8	6661426	B1	2003-12-09	Jetha et al.		
If you wish to add additional U.S. Patent citation information please click the Add button.							Add

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number		12170939
Filing Date		2008-07-10
First Named Inventor	Yves Behar	
Art Unit	2445 2835	
Examiner Name	<del>Not Yet Assigned</del> Adrian Wilson	
Attorney Docket Number	A2029-700110	

**U.S.PATENT APPLICATION PUBLICATIONS** Remove

Examiner Initial*	Cite No	Publication Number	Kind Code <sup>1</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
/A.W./	1	20070138806	A1	2007-06-21	Chris Ligtenberg et al.	
↓	2	20080042987	A1	2008-02-21	Wayne Westerman et al.	
	3	20070182663	A1	2007-08-09	Biech	
	4	20050210399	A1	2005-09-22	Filner et al.	
	5	20050257400	A1	2005-11-24	Sommerer	
	6	20090303676	A1	2009-12-10	Behar	
	7	20090300511	A1	2009-12-03	Behar	

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Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup> j	Kind Code <sup>4</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
/A.W./	1	0588210	EP	A1	1994-03-23	Hitachi, Ltd.		<input type="checkbox"/>

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939	
	Filing Date		2008-07-10	
	First Named Inventor	Yves Behar		
	Art Unit	<del>2445</del>	2835	
	Examiner Name	<del>Not Yet Assigned</del>	Adrian Wilson	
Attorney Docket Number		A2029-700110		

/A.W./	2	10-2000-0036647	KR	A	2000-07-05	Icten Communication Co.	<input type="checkbox"/>
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**EXAMINER SIGNATURE**

Examiner Signature	/Adrian Wilson/	Date Considered	07/01/2010
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PTO/SB/08a (09-08)

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939
	Filing Date		2008-07-10
	First Named Inventor	Yves Behar	
	Art Unit	2115	
	Examiner Name	Not Yet Assigned	
	Attorney Docket Number	A2029-700110	

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Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	
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	2	5825352		1998-10-20	Stephen J. Bisset et al.		
	3	5841631		1998-11-24	Seong S. Shin et al.		
	4	6323846	B1	2001-11-27	Wayne Westerman et al		
	5	6659516	B2	2003-12-09	Shyune-Yang Wang et al.		
	6	7250207	B1	2007-07-31	Gary W. Heal et al.		
	7	7061472	B1	2006-06-13	Schweizer et al.		
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	Filing Date		2008-07-10	
	First Named Inventor	Yves Behar		
	Art Unit		2115	
	Examiner Name	Not Yet Assigned		
	Attorney Docket Number		A2029-700110	

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Examiner Initial*	Cite No	Publication Number	Kind Code <sup>1</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	
	1	20070138806	A1	2007-06-21	Chris Ligtenberg et al.		
	2	20080042987	A1	2008-02-21	Wayne Westerman et al.		
	3	20070182663	A1	2007-08-09	Biech		
	4	20050210399	A1	2005-09-22	Filner et al.		
	5	20050257400	A1	2005-11-24	Sommerer		
	6	20090303676	A1	2009-12-10	Behar		
	7	20090300511	A1	2009-12-03	Behar		

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Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup> j	Kind Code <sup>4</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
	1	0588210	EP	A1	1994-03-23	Hitachi, Ltd.		<input type="checkbox"/>

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	Art Unit	2115		
	Examiner Name	Not Yet Assigned		
	Attorney Docket Number	A2029-700110		

	2	10-2000-0036647	KR	A	2000-07-05	Icten Communication Co.	<input type="checkbox"/>
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	1		<input type="checkbox"/>

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Examiner Signature		Date Considered	
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	First Named Inventor	Yves Behar	
	Art Unit		2115
	Examiner Name	Not Yet Assigned	
	Attorney Docket Number		A2029-700110

**CERTIFICATION STATEMENT**

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

**OR**

That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

None

**SIGNATURE**

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Matthew H. Grady/	Date (YYYY-MM-DD)	2009-12-18
Name/Print	Matthew H. Grady	Registration Number	52957

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**



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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
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9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Yves Behar  
 Serial No: 12/170,939  
 Confirmation No: 1986  
 Filed: July 10, 2008  
 For: PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS

Examiner: Not Yet Assigned  
 Art Unit: 2115

**CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. §1.8(a)**

The undersigned hereby certifies that this document is being electronically filed in accordance with §1.6(a)(4) on the 18<sup>th</sup> day of December, 2009.

/Matthew H. Grady/  
 Matthew H. Grady, Reg. No. 52,957

Commissioner for Patents

**INFORMATION DISCLOSURE STATEMENT FILED PURSUANT TO THE DUTY OF DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98**

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

**PART I: Information Cited**

The Applicant hereby makes of record in the above-identified application the information listed on the concurrently filed form PTO/SB/08a.

The order of presentation of the references should not be construed as an indication of the importance of the references.

The Applicant hereby makes the following additional information of record in the above-identified application.

The applicant would like to bring to the Examiner's attention the following co-pending applications that may contain subject matter related to this application, the published applications are cited on the form PTO/SB/08a, and a copy of the unpublished applications are enclosed:

<u>Serial No.</u>	<u>Filing Date</u>	<u>Inventor(s)</u>	<u>Publication No.</u>
12/416,496	April 1, 2009	Yves Behar	US 2009/0303676 A1
12/416,503	April 1, 2009	Yves Behar	US 2009/0300511 A1

<b>12/416,479</b>	<b>April 1, 2009</b>	<b>Yves Behar</b>	<b>N/A</b>
<b>12/611,282</b>	<b>November 3, 2009</b>	<b>Robert Pennington</b>	<b>N/A</b>

The applicant would like to bring to the Examiner's attention the following other information, whose relevance is discussed in Part II below:

PART II: Explanation of Non-English Language References and Remarks Concerning Other Information Cited

The following is a concise explanation of the relevance of each non-English language reference listed on the concurrently filed form PTO/SB/08a:

For the relevance of the listed non-English language reference KR 10-2000-0036647 A published July 05, 2000, the reference was cited in the International Search Report from a commonly owned PCT application PCT/US09/39117, wherein this document was placed in category "A," meaning that, in the opinion of the International Searching Authority, it relates to the general state of the art disclosed in PCT/US09/39117 and is not considered to be of particular relevance. An English language version of the Abstract has been provided with KR 10-2000-0036647 A.

The following are remarks concerning the other information cited:

PART III: Remarks

Documents cited anywhere in the Information Disclosure Statement, other than U.S. Patents and U.S. Patent Application Publications listed on a Form PTO/SB/08a, are enclosed unless otherwise indicated. It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
2. Any concurrently filed form PTO/SB/08a be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;
3. The citations for the information be printed on any patent which issues from this application.

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By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

Notwithstanding any statements by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Respectfully submitted,

*Yves Behar, Applicant*

By: Matthew H. Grady/  
Matthew H. Grady, Reg. No. 52,957  
LANDO & ANASTASI, LLP  
Riverfront Office Park  
One Main Street  
Cambridge, Massachusetts 02142  
Tel. (617) 395-7000



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European Patent Office  
Office européen des brevets



Publication number: **0 588 210 A1**

(12)

**EUROPEAN PATENT APPLICATION**

(21) Application number: **93114327.5**

(51) Int. Cl.<sup>5</sup>: **H04M 1/02**

(22) Date of filing: **07.09.93**

(30) Priority: **08.09.92 JP 239735/92**

(43) Date of publication of application:  
**23.03.94 Bulletin 94/12**

(64) Designated Contracting States:  
**DE FR GB**

(71) Applicant: **HITACHI, LTD.**  
**6, Kanda Surugadai 4-chome**  
**Chiyoda-ku, Tokyo 101(JP)**

(72) Inventor: **Nishiyama, Takanori, Mezon Mitaka**  
**312**  
**17-34, Shimorenjaku-6-chome**  
**Mitaka-shi(JP)**

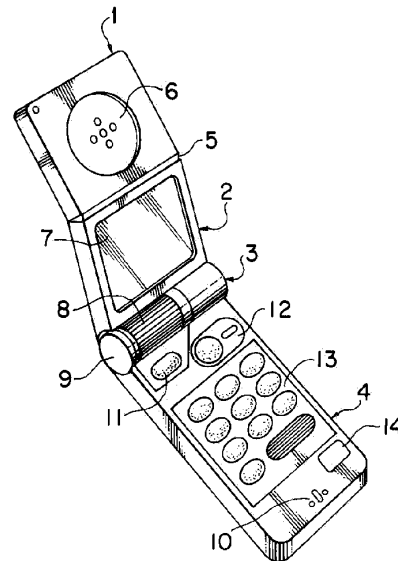
Inventor: **Yanagisawa, Kazunori**  
**1751, Imokubo-4-chome**  
**Higashiyamoto-shi(JP)**  
Inventor: **Itakura, Sakae**  
**898, Fukaya**  
**Ayase-shi(JP)**

(74) Representative: **Altenburg, Udo, Dipl.-Phys. et**  
**al**  
**Patent- und Rechtsanwälte,**  
**Bardehle . Pagenberg . Dost . Altenburg .**  
**Frohwitter . Geissler & Partner,**  
**Galleiplatz 1**  
**D-81679 München (DE)**

(54) **Portable radio telephone set.**

(57) A portable radio telephone set provided with a display section includes a rotary selector which turns to select various functions. A menu displayed on the display section is selected by the rotary selector during a non-conversation time and the sound volume can be adjusted during a conversation time. The adjusting operation can be performed from both the front and rear sides of the telephone set. The rotary selector and button keys are arranged within the operation range of the thumb, and ordinary dial functions performed by operating these rotary selector and button keys are provided.

**FIG. 1**



**EP 0 588 210 A1**

## BACKGROUND OF THE INVENTION

## Field of the Invention:

The present invention relates to a portable radio terminal and, more particularly, to a portable radio telephone set having a folding and housing control mechanism and a rotary selector for selecting various functions provided in a hinge section for folding and housing purpose.

## Description of the Related Art:

Conventional portable radio telephone sets (hereinafter referred to simply as telephone sets) are not only provided with ordinary telephone functions, but also an electronic telephone directory function by which telephone numbers and names can be registered, a help function for guiding various functions, an incoming call tone selection function for selecting incoming call tone, and the like, thus being formed as a multi-functional terminal. The conventional portable radio telephone set uses function buttons in order to select such functions. The operation of some terminals has been made easier by making the shape of function buttons different from that of dial buttons.

When, for example, the electronic telephone directory function is used, first a telephone set user operates a function button for the electronic telephone directory function in order to call a telephone number stored in the electronic telephone directory on a display section of the portable radio telephone set. Then, the telephone set user operates a function button for selecting the telephone number and a function button for scrolling the registered telephone numbers in order to call the wanted telephone number on the display section from among telephone numbers registered in the electronic telephone directory. When the wanted telephone number is confirmed on the display section by the above operation, the user operates a function button for starting a conversation in order to call the other party.

Though the conventional portable radio telephone set is multi-functional, the operation procedure thereof is complex for a user when the series of operations described above is considered. Furthermore, there is the possibility that the greater the number of buttons, the greater the chances that a button may be depressed erroneously when the button arrangement of a present portable radio telephone set is considered.

That is, in view of the complexity of such an operation procedure, it is not said easy, as regards a conventional telephone set in which functions are selected by function buttons, to operate various buttons with only one hand while holding the tele-

phone set itself in the same hand.

## SUMMARY OF THE INVENTION

5 It is an object of the present invention to provide a telephone set which makes it possible to easily perform various operations required particularly for conducting a radio conversation with one hand while the telephone set itself is being held by the same hand.

10 It is another object of the present invention to simplify the procedure for selecting or operating a plurality of functions of the telephone set.

15 It is still another object of the present invention to provide a multi-functional telephone set, the number of buttons thereof being reduced as much as possible.

20 To achieve the above-described objects, a portable radio telephone set in accordance with the present invention is provided, which portable radio telephone set has a display section, comprising a rotary selector which turns to select various functions. A menu of various functions displayed on the display section is selected when the rotary selector is during a non-conversation time, sound volume can be adjusted during a conversation time, the adjusting operation can be performed from both the front and rear sides of the telephone set. The rotary selector and button keys are arranged within the operation range of the thumb, and thus ordinary dial functions, performed by operating the rotary selector and the button keys, are provided.

25 According to the present invention, since the rotary selector is provided as a telephone terminal, it is possible to easily select a desired function of the telephone terminal with one hand by rotating the selector.

30 Also, according to the present invention, since the rotary selector is provided in a hinge section of a telephone terminal which is foldable so that it can be housed, it is possible to select a desired function of the telephone terminal by rotating the rotary selector.

35 Since the rotary selector is provided in the hinge section of the telephone terminal which is foldable so it can be housed, the hinge section can be of any size, and the mechanical strength of the hinge section is strengthened. The provision of the rotary selector results in a reduction of key buttons for performing multiple functions, or the like, making it possible to effectively use the space where the telephone set is arranged.

40 Also, by arranging the rotary selector provided in a terminal so as to be rotatable longitudinally and slidable along the shaft of the hinge, the rotary selector can be used as a cursor. Further, by moving the cursor on the display section up and down, or from side to side in linkage with the rotary

selector in this way, various functions of a portable telephone set can be performed, and it is made easy to perform an operation with one hand.

The above and further objects and novel features of the invention will more fully appear from the following detailed description when the same is read in connection with the accompanying drawings. It is to be expressly understood, however, that the drawings are for the purpose of illustration only and are not intended as a definition of the limits of the invention.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective view illustrating the appearance of a portable radio telephone set in accordance with an embodiment of the present invention;

Fig. 2 is a perspective view illustrating a state in which the portable radio telephone set shown in Fig. 1 is used while it is held with one hand;

Fig. 3 is a perspective view illustrating a state in which the portable radio telephone set is used during a radio conversation state as it is seen from the outer side (the rear side) thereof;

Fig. 4 is an illustration of a one-hand operation method in a state in which the radio telephone set is held with one hand;

Fig. 5 is a partial sectional view of a joint portion of the radio telephone set in accordance with the embodiment of the present invention;

Fig. 6 is a partial sectional view of the joint portion and the receiver portion of the radio telephone set, a display section, and the like;

Fig. 7 is a perspective view, partly in cross section, illustrating a state in which the radio telephone set is folded so it is housed;

Fig. 8 is a plan view illustrating a method for controlling the position of a cursor by operating the dials of the radio telephone set in accordance with the present invention; and

Fig. 9 is a flowchart showing a selection of various functions by using a rotary selector of the radio telephone set.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Preferred embodiments of the present invention will be explained below with reference to the accompanying drawings of Fig. 1 through Fig. 9.

The appearance of a telephone set in accordance with the present invention will be explained first. Fig. 1 illustrates in perspective the overall appearance of the main body of the telephone set when the folded state thereof is released and it is placed in a use state. In this case, a receiver section 1 and a display section 2 are freely flexed

and engaged with each other via a hinge 5. These sections are engaged with an operation section 4 via a joint portion 3 by which the telephone set is folded and rotated so as to be housed. A receiver (speaker for outputting received voice sound) 6 is provided in the central portion of the receiver section 1. When this receiver is brought into contact with the ear of a party (user) during a radio conversation, a voice sound from the other party is heard. Since, as shown in the figure, the hinge 5 is flexed to form a V shape, it is easy to operate the telephone set during the radio conversation state. The joint portion 3 maintains the state in which the telephone set is rotated after the main body of the telephone set is folded and housed, that is, the use state, and is provided with a selector 8 for selecting functions, a rotation operation mechanism, and a push-button 9. A set button 11 for storing/retrieving and inputting/outputting information, a call origination (re-origination) button 12 for starting a conversation, a ten-key portion 13, and a termination button 14 for terminating a conversation are provided in the operation section 4, a microphone 10 being contained in the front end portion of the main body. With this construction, when a radio conversation function is selected by the selector 8, a telephone set user brings the receiver 6 into contact with the ear, and the user's mouth is brought close to the microphone 10 as in a handset of a conventional telephone set, a radio conversation with the other party then being conducted. Keyed-in information and necessary information from among stored information are called and displayed on a liquid-crystal display screen 7 disposed in the central portion of the display section 2.

Fig. 2 illustrates a state in which the telephone set is being used while it is held by one hand (the left hand in this embodiment). The telephone set user grasps both end portions of the joint portion 3 between the thumb "a" and the forefinger "b". The push-button 9 is depressed by the thumb "a" in order to rotate the display section 2 and the receiver section 1 via the joint portion 3, thereby shifting the state of the telephone set from the state in which it is folded and housed to a stable use state. Since the main body of the telephone set is basically held by the thenar "c" and the remaining three fingers "d", an accident, such as the main body of the telephone set falling from the hand, does not occur even if the thumb "a" and the forefinger "b" are separated from the main body of the telephone set. Therefore, if the main body of the telephone set is held as shown in Fig. 2, the telephone set user can operate the selector 8 and various operation buttons on the operation section 4 with the thumb "a" while simultaneously confirming a display on the liquid-crystal display screen 7.

Fig. 3 is a perspective view of the portable radio telephone set as it is seen from the outer side (the rear side) thereof, illustrating a state in which the radio telephone set is used during a radio conversation. As shown in Fig. 3, the forefinger "b" is separated from one end of the joint portion 3, and the selector 8 is operated by the forefinger "b". As a result, the selector 8 can be operated by the thumb "a" from the inner surface thereof, and also by the forefinger "b" from the outer surface thereof.

Therefore, the selector 8 is provided in the joint portion 3 so as to select various functions (to be specific, call origination/reception, telephone number, secrecy, input, output, storage, calculation, time, remote control, schedule, call, clear, calendar, dictionary, map, characters, numerals, or the like) during a non-radio conversation time, and so as to function to adjust the volume of the received voice sound during a radio conversation time. The selector 8 is provided in such a way that the selector 8 is rotatable longitudinally and can be operated from both the inner and outer surfaces.

Fig. 4 illustrates a one-hand operation method in a state in which the radio telephone set is held with one hand. As shown in the figure, in the main body of the telephone set, the right and left ends of the operation section 4 are held by the thenar "c" and the three fingers "d". If the push-button 9 is depressed by the thumb "a", the folded and housed telephone set can be shifted to a stable use state, i.e., a radio conversation state, by rotating the receiver section 1 and the display section 2 via the joint portion 3.

An example of a case in which a radio conversation is conducted in this use state will be explained. First, the telephone set user selects by using the selector 8 a list display function (one function of the telephone set) for displaying a list of names and their telephone numbers. The available selection methods include a method in which a list of functions is displayed beforehand on the liquid-crystal display screen 7 and a cursor which is moved in linkage with the rotation of the selector 8 or the like is moved up and down to identify any one of the functions, a method in which the selector itself is provided with a change-over switch corresponding to multiple functions, the selector being switched to select any one of the functions. The functions can be more easily selected by using the selector 8 in addition to the key buttons. Next, a list of the prestored names and their telephone numbers is displayed on the liquid-crystal display screen 7, and a wanted telephone number is retrieved by scrolling the display screen using the selector 8. In the above display and retrieval method, only the selector 8 needs to be operated. As a result, an operation for switching the selector

8 at a thumb position "f" is possible. Further, when the telephone number of the other party is confirmed, a set button 11 is depressed at a thumb position "g", and a call origination (re-origination) button 12 is operated, allowing a radio conversation to start. When the radio conversation is terminated, a termination button 14 is depressed at a thumb position "i" in order to complete a series of operations necessary for conducting a radio conversation. That is, the range in which the liquid-crystal display screen 7 can be visually confirmed and in which the thumb "a" can be moved to operate the selector 8, the call origination (re-origination) button 12, and the termination button 14 is assumed to be the range defined by the broken lines A and B shown in the figure. In this range, necessary operations can be performed by the thumb "a". In other words, this range is a range in which the thumb "a" is rotated, turned, moved back and forth, and bent in a combined manner at a joint "e" about the base of a human's phalanx in the thumb "a". Therefore, when the selector 8 and various buttons required for a radio conversation are arranged in the range defined by the broken lines A and B, since the selector 8 and the buttons are operated with one hand, the ease with which the telephone set is operated with one hand is enhanced.

An example in which these various functions are selected by the selector 8 will now be explained with reference to the flowchart in Fig. 9. When the telephone set is opened for use from the state in which it is housed because the push-button 9 is depressed by the thumb "a", the power supply is turned on, and the initial screen appears on the liquid-crystal display screen 7, on which screen date, time, and the like are displayed. When the set button 11 is depressed, a function screen appears on the display screen 7. The displayed function setting and the memory dial are cursor-moved by turning the selector 8. Then, a function is selected, and the function is determined by operating the set button 11.

When a function setting is selected in such function selection, functions "Set/Release", "Select", "Adjust", "Command input" and "Display only" are successively displayed as a result of the turning of the selector 8, making scrolling retrieval possible and allowing these selected functions to be confirmed. When these functions are selected and set by the set button 11, call origination restriction is set or released in "Set/Release", turning on/off of number announcement is selected by the cursor movement caused by the turning of the selector 8 and determined by the set button 11, and the screen returns to the initial screen. When the function "Select" is selected and set, the selectable range of ringing tone quality is displayed, and it is possible to select the tone quality by turning



the selector 8 while displaying the current situation. After the tone quality is determined by the set button 11, the screen returns to the initial screen. When the function "Adjust" is selected and set, the selectable range of the receiver tone volume is displayed, and it is possible to select the tone volume by turning the selector 8 while displaying the current situation. After the receiver tone volume is determined by the set button 11, the screen returns to the initial screen. When the function "Command input" is selected and set, a display screen for inputting four digits of a personal identification number appears, making it possible to input the number by using the buttons of a ten-key section 13. The number is set by the set button 11 after it is input, and the screen returns to the initial screen. When the function "Display only" is selected and set, the amount of the remaining memory of the memory dial is displayed, and the screen returns to the initial screen.

When the memory dial is selected in the function selection, "Store", "Update", and "Clear" displayed on the display screen 7 are set by the selector 8 as a result of the turning thereof, and set by the set button 11, making it possible to proceed to the subsequent functions.

Although in the above-described operation, functions are determined by the set button 11, the selector 8 may be moved axially so as to have the same functions as those of the set button 11 as in a joystick 29 which will be described later. In such a case, the ease with which the telephone set is operated with one hand is enhanced even more.

Fig. 5 is a partial sectional view of the joint portion 3 of the radio telephone set in accordance with the present invention. The joint portion 3 is formed of a case 15 and a button shaft 19, and fixed to the operation section 4. A boss shaft 16 is formed in the central end surface portion of the case 15, and the boss shaft 16 and a hollow flange 18 are rotatably engaged with each other. Similarly, a sleeve shaft 22 is formed in the button shaft 19, and the sleeve shaft 22 and a sleeve flange 20 are rotatably engaged with each other. The rotatable hollow flange 18 and the sleeve flange 20 are fixed by a chassis 17 which is stably fixed inside the display section 2. In this way, the operation section 4 and the display section 2 are freely engaged with each other in such a way that they can be folded on one another via the joint portion 3.

The push-button 9 can be movably inserted into the end surface of the button shaft 19. A shank 23 formed in the push-button 9 is slidably fitted into the inside of the sleeve shaft 22. A stopper piece 24 is disposed in the shank 23 which is engaged with notches 25 and 26 formed in the end surfaces of the sleeve shaft 22 and the sleeve flange 20. As a result, the rotation of the sleeve

flange 20 is stopped, and consequently the rotation of the display section 2 is stopped stably. The notch 26 of the sleeve shaft 22 does not allow the engagement of the stopper piece 24 to be released for the maximum axial stroke of the push-button 9. In contrast, the engagement of the notch 25 of the sleeve flange 20 can be released and freely rotated. The notch 25 of the sleeve flange 20 is formed at an open position where the telephone set is being used and at a housing position (not shown) where it is folded and housed.

Further, a torsion coil spring 21 is disposed inside the case 15. One end of the torsion coil spring 21 is connected and fixed to the case 15, and the other end thereof is extended from the case 15 and engaged with a spring hole formed in the hollow flange 18. As a result, if the push-button 9 is depressed, the stopper piece 24 releases the stoppage at the notch 25 (not shown) when it is housed, and the elastic force of the torsion coil spring 21 is released, causing the hollow flange 18 to rotate. Therefore, the receiver section 1 and the display section 2 are rotated, becoming ready for use.

Since some elastic force still remains in the torsion coil spring 21 in the above connection in the use state, a rotational force is given continuously in the direction in which the remaining elastic force is released. This fact indicates that unwanted jarring which may occur when the telephone set is used, is prevented by the rotational force thereof.

Further, when a selector shaft 28 engaging with the selector 8 moves along the axis thereof when the mechanical position thereof is read, the stroke stops at the end surface of the shank 23 so as to serve as a stopper. The press fitting between the shank 23 and a shaft 27 is not released by such an operation force acting on the selector shaft 28. The selector shaft 28 and the shaft 27 are able to slide axially and turn around the shaft thereof on one shaft. The shaft 27 is supported so as to be slidable and turnable inside the selector shaft 28, and the other end reaches the joystick 29. Further, the selector shaft 28 extends close to the center of the joint portion 3, and the selector 8 is press-fitted to the end. The selector 8 is able to smoothly slide axially and turn around the shaft thereof without contacting other components.

Next, the joystick 29 will be explained. Disposed inside the joystick 29 are a power-supply switch (not shown) working with the shaft 27, a volume (for adjusting the receiver tone volume) which operates in response to the movement of the selector shaft 28, a sensor (for selecting functions), and the like. Examples of the sensor are a mechanical sensor, an electrical sensor, or an optical sensor. In short, the sensor detects the rotational position of the selector shaft 28, the sliding opera-

tion along the rotational shaft, and sends a signal to the liquid-crystal display screen 7 so that function selection/setting shown in Fig. 9 is performed and the screen is switched. Examples of methods performed by the power-supply switch are a method in which the position of the selector shaft is detected by the sensor and the power supply is turned on/off, and a method in which simply one end of the selector shaft 28 and the surface which the one end contacts are formed into an electrical contact point, and it is made to work with the depressing of the push-button 9. If the turning on/off of the push-button 9 is made to work in linkage with the turning on/off of the power-supply switch as in these methods, the telephone set user depresses the push-button 9 in order to make the telephone set in a folded and housed state shift to a use state, the power supply of the telephone set can be turned on, making it unnecessary to provide a key button exclusively used for the power-supply switch in the operation section 4. More specifically, when the telephone set is shifted to a state in which it is placed in a use state from the folded and housed state, the power supply of the telephone set can be inevitably turned on without operating a key button exclusively used for the power supply. The sensor inside the joystick 29 works not only with the selector shaft 28, but also with the operation of the function button in the operation section 4, and functions can be selected from the operation section 4.

The functions selected in this way reach a display processing circuit (not shown) via a cord E, and various displays necessary for performing the functions are made. Although in the embodiment the selector 8 works for controlling the position of a cursor, a selector exclusively used for controlling the position of the cursor, in addition to the selector 8, may be disposed near the selector 8.

Fig. 6 is a partial sectional view of the joint portion 3, the receiver section 1, and the display section 2. As shown in the figure, the display section 2 is able to turn along a slide ring 30 which serves as a part of the joint portion 3 fixed to the operation section 4. Inside the display section 2, one end of a fine slide pin 31 is always pressed against and built onto the slide ring 30. The other end of the slide pin 31 is rotatably engaged with a hinge piece 32 which works with the hinge 5 by which the section between the display section 2 and the receiver section 1 is made flexible. An elastic spring 33 is fixed to the hinge piece 32, and the other end is fixed to a spring seat 34 formed inside the receiver section 1. As shown in the figure, the receiver section 1 stabilizes at the flex position as indicated by the solid line by the action of the elastic spring 33. When an unnecessary force acts on the receiver section 1, since the

receiver section 1 is turned as indicated by the broken line, the telephone set itself is protected, and the receiver section 1 contacts the user's ear with elastic properties during a non-radio conversation. Thus, received voice can be heard in a satisfactory contact. When the telephone set is folded and housed, the receiver section 1 and the display section 2 are folded via the joint portion 3 as indicated by the broken line. Since, at that time, the slide pin 31 engages with a notch 35 of the slide ring 30, formed at the position at which the telephone set is housed, the receiver section 1 and the display section 2 are folded stably. At the folded time, the hinge piece 32 which works with the slide pin 31 is retracted into the display section 2. Therefore, the receiver section 1 which is flexed with respect to the display section 2 is folded in a state in which it is spread linearly so as to be along the display section 2.

Fig. 7 is a perspective view, partly in cross section, illustrating a state in which the telephone set is folded so as to be housed. As shown in the figure, since the slide pin 31 built into the display section 2 is engaged with the notch 35 formed in a part of the outer periphery of the joint portion 3 (equivalent to the slide ring 30), the telephone set is stably folded and housed. In this folded and housed state, if the push-button 9 is operated, the receiver section 1 and the display section 2 are turned for use, and the slide pin 31 is slidingly released from the notch 35. As a result, the receiver section 1 is flexed with respect to the display section 2.

Finally, controlling the position of the cursor by using the selector 8 will be explained. Fig. 8 illustrates a method for controlling the position of the cursor. As shown in the figure, the selector 8 disposed in the joint portion 3 is used to update the position of the noticed display on the liquid-crystal display screen 7, i.e., the position of a cursor 37. When that position is updated, the thumb "a" is operated at will from side to side in the direction of the arrow A or up and down in the direction of the arrow B in a state in which the thumb "a" contacts at a position "j" on the selector 8. That is, when the selector 8 is in a free state, the selector 8 stabilizes while maintaining clearances 36a and 36b of the same size toward the right and left, respectively. The operation using the thumb "a" in the direction of the arrow A changes the size of these clearances 36a and 36b. This change is sensed by a sensor inside the above-mentioned joystick 29. If, for example, the selector 8 is operated to the right, the cursor 37 is moved to the right on the liquid-crystal display screen 7. If the thumb "a" is released from the selector 8, the selector 8 is automatically made to return to the central position. The upward and downward opera-

tion of the selector 8 by using the thumb "a" causes the selector 8 to rotate up and down. The direction and the amount of the rotation at that time is sensed by the knob or sensor inside the joystick 29, and the cursor 37 moves up and down on the liquid-crystal display screen 7. What is meant by "sensed by the knob" here is that the amount of the rotation of the selector 8 is determined by voltage, current or the like corresponding to the knob. When a selector exclusively used for controlling the position of the cursor, in addition to the selector 8, is disposed near the selector 8, the selector exclusively used for controlling the position of the cursor is similarly operated, controlling the position of the cursor 37. Therefore, if the cursor 37 is moved successively to a desired position, for example, in a condition in which all necessary characters, numerals, symbols or the like are displayed on the liquid-crystal display screen 7, characters or the like at a moved position are sequentially selected as input subjects, and processed. When the set button 11 is operated on the operation section 4 in a condition in which, for example, the cursor 37 is moved to a desired character position, a list of names and telephone numbers can be displayed in part on the upper portion of the liquid-crystal display screen 7. Up to the present time, desired character strings or the like have been formed solely by operations of ten-keys for a necessary number of times. The operations are troublesome and complex, and key processing requiring a great number of operations is necessary. However, when display processing is performed as described above, such inconveniences as described above are reduced.

According to the embodiment of the present invention, as described above, since the rotary selector is disposed in the hinge section of a telephone set which is folded so as to be housed, the hinge section is made to have a desired size so that the mechanical strength of the hinge section can be strengthened. Since the provision of the rotary selector results in a reduction of key buttons for performing multiple functions, there is an advantage in that the space where the telephone set is arranged can be effectively used.

According to the embodiment of the present invention, there is an advantage in that by using the rotary selector disposed in a terminal, no key buttons exclusively used for controlling the cursor are needed, and the operation with one hand is made easier.

In addition, according to the embodiment of the present invention, the number of necessary key buttons can be reduced since the portable telephone set is provided with a rotary selector, and key buttons and a display of the most appropriate size can be arranged in a telephone set of the

most appropriate size. Furthermore, when the rotary selector is disposed in the hinge section of a folding type portable telephone set, the space where the rotary selector is disposed can be reduced.

According to the embodiment of the present invention, since a rotary selector is disposed in the telephone set, it is possible to easily perform various operations necessary, in particular, for conducting a radio conversation with the fingers of one hand while the telephone set itself is being held with the same hand.

Many different embodiments of the present invention may be constructed without departing from the spirit and scope of the present invention. It should be understood that the present invention is not limited to the specific embodiment described in this specification. To the contrary, the present invention is intended to cover various modifications and equivalent arrangements included within the spirit and scope of the claims. The following claims are to be accorded the broadest interpretation, so as to encompass all such modifications and equivalent structures and functions.

#### Claims

1. A portable radio telephone set provided with a display section, comprising: a rotary selector which turns to select various functions, said rotary selector being capable of selecting a menu of the various functions displayed on the display section during a non-conversation time, and capable of adjusting the sound volume during a conversation time, the adjusting operation capable of being performed from both the front and rear sides of said telephone set, and button keys being arranged with said rotary selector within the operation range of the thumb so that ordinary dial functions performed by operating said rotary selector and said button keys are provided.
2. A portable radio telephone set according to claim 1, said telephone set being of a folding type so as to be housed, wherein said rotary selector is provided in the foldable hinge section so as to be rotatable in the same direction as that of said hinge section.
3. A portable radio telephone set according to claim 2, wherein a folding and housing control mechanism is disposed in the side end of said hinge section.
4. A portable radio telephone set according to claim 1, wherein said rotary selector is rotat-

able and slidable along the rotational shaft thereof.

5. A portable radio telephone set according to one of claims 1 and 4, wherein said rotary selector makes it possible to control the position of a cursor on the display section. 5
6. A portable radio telephone set according to claim 1, wherein, when said rotary selector turns to set functions in function selection, it is possible to scroll and retrieve setting and releasing of call origination restriction, ringing tone, receiver tone volume, inputting of a personal identification number or the like, which are functions displayed on said display section, and it is possible to select and set these functions by the rotary selector. 10  
15
7. A portable radio telephone set which is provided with a display section and of a folding and housing type, said telephone set comprising a rotary selector which turns to select various functions being disposed in a hinge section for folding and housing purpose in such a way that the rotary selector can turn in the same direction as that of said hinge section, and a dial for controlling the position of a cursor being disposed near the shaft of the hinge section of said rotary selector, said dial being capable of turning in the same direction as that of said hinge section and capable of sliding along the shaft of said hinge section. 20  
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8. A portable radio telephone set according to claim 7, further comprising a folding and housing control mechanism disposed in the side end of said hinge section. 35
9. A portable radio telephone set which is provided with a display section and of a folding and housing type, said telephone set comprising a rotary selector which turns to select various functions disposed in a hinge section for folding and housing purpose in such a way that the rotary selector can turn in the same direction as that of said hinge section, said rotary selector selecting a menu displayed on a display section during a non-conversation time and adjusting a sound volume during a conversation time, such adjusting operation capable of being performed from both the front and rear sides of said telephone set, button keys being arranged with said rotary selector within the operation range of the thumb so that ordinary dial functions performed by operating said rotary selector and button keys are provided, and a dial for controlling the position of 40  
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a cursor being disposed near the shaft of the hinge section of said rotary selector, said dial being capable of turning in the same direction as that of said hinge section and capable of sliding along the shaft of said hinge section.

FIG. 1

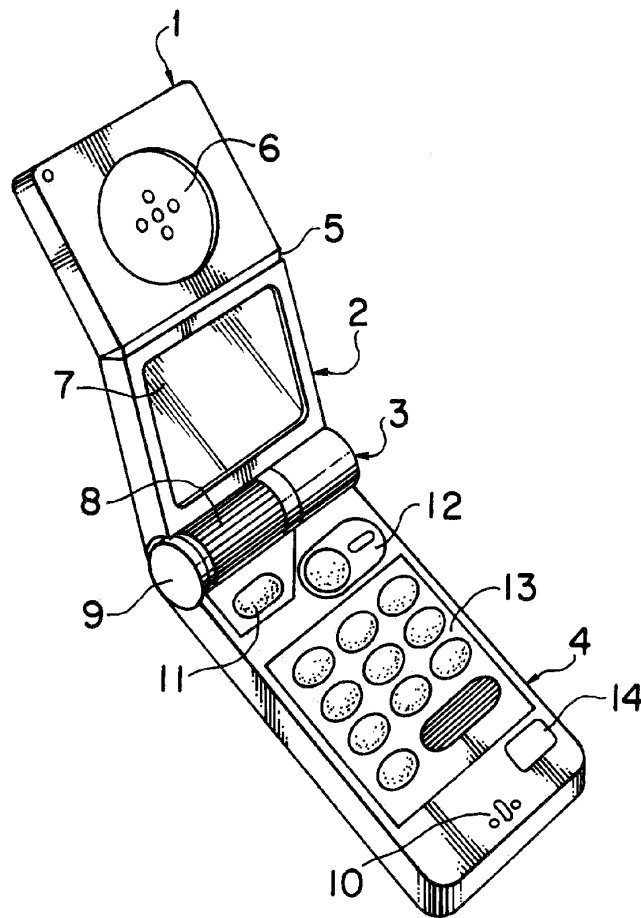


FIG. 2

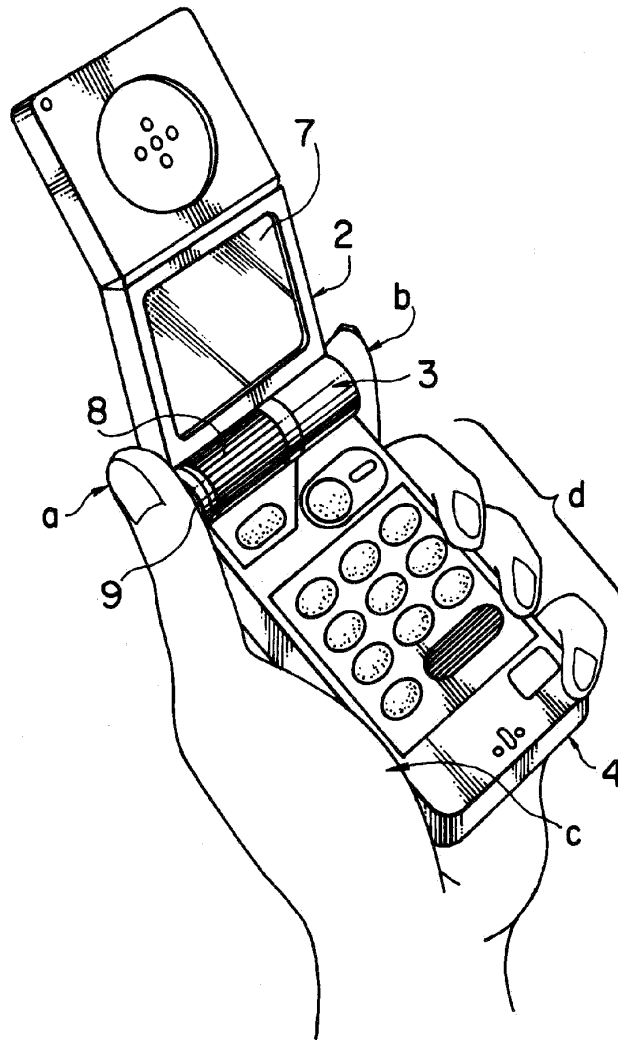


FIG. 4

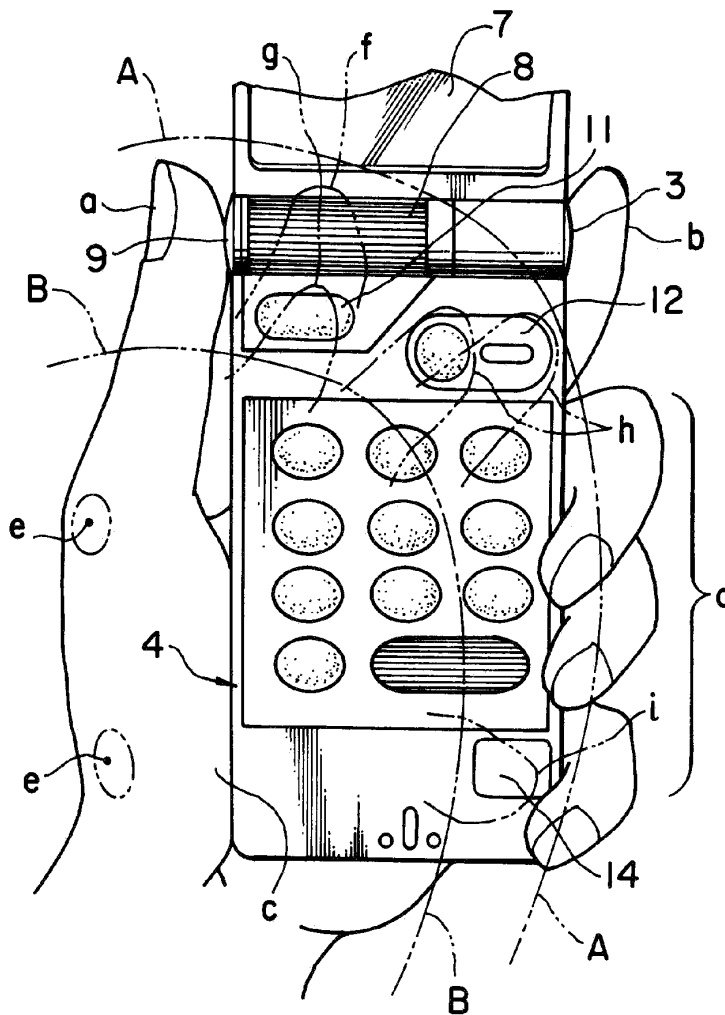


FIG. 3

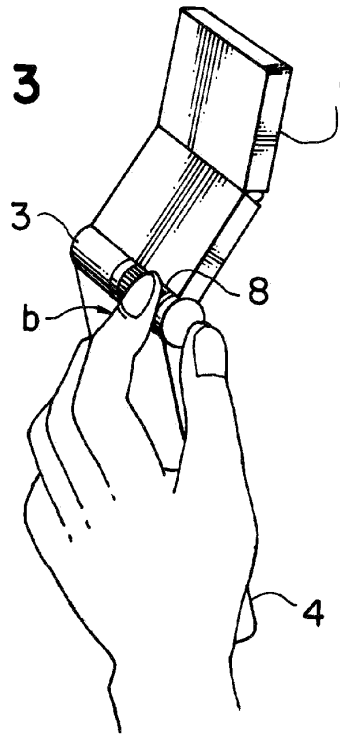


FIG. 5

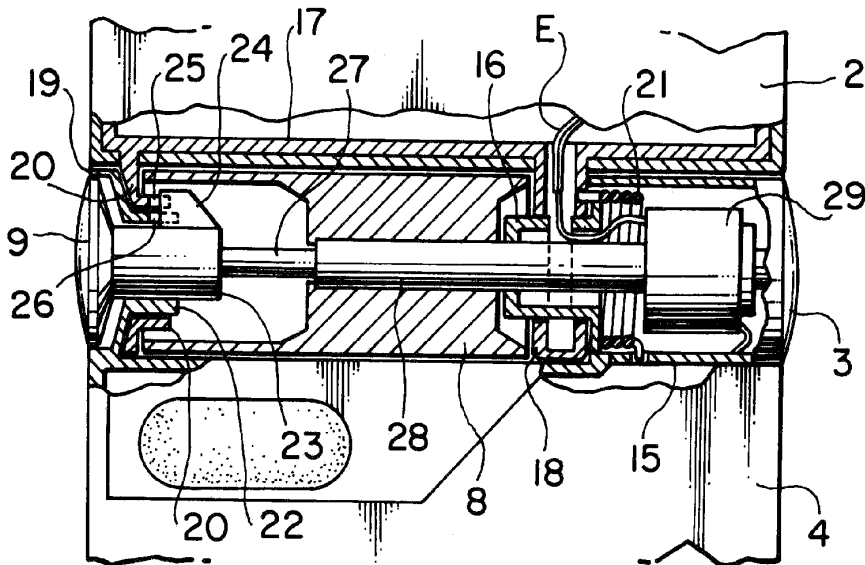




FIG. 6

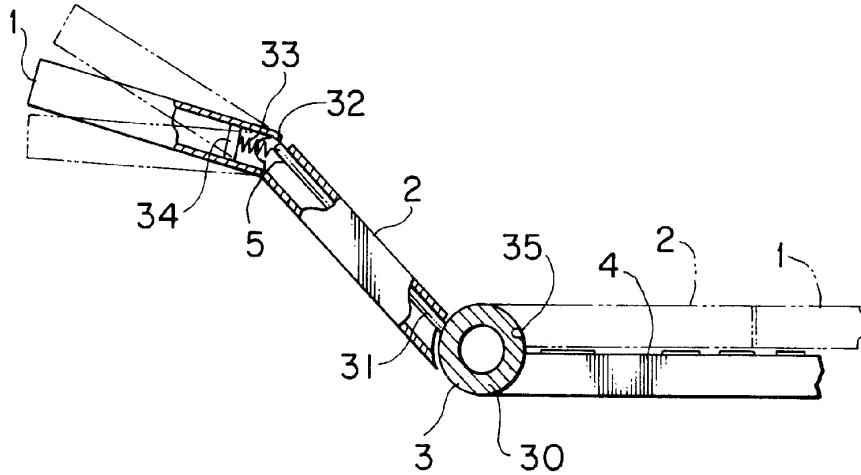
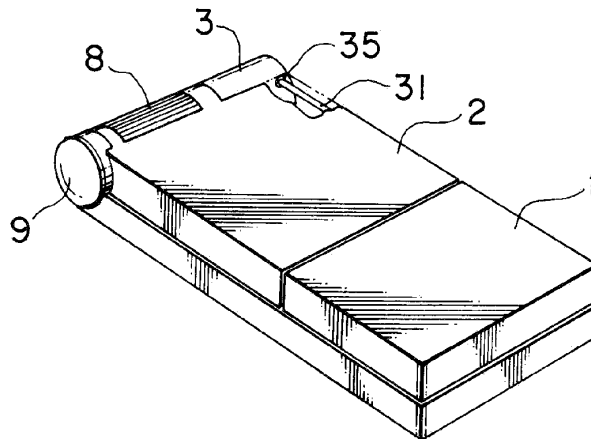


FIG. 7









DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.5)
Y A	EP-A-0 463 856 (NOKIA MOBILE PHONES LTD) * the whole document * ---	1,6 7,9	H04M1/02
Y	DE-A-40 08 598 (PHILIPS PATENTVERWALTUNG GMBH) * column 3, line 15 - column 5, line 34; figures 1-3 * ---	1,6	
A	EP-A-0 373 387 (ROBERT BOSCH GMBH) * column 2, line 40 - column 4, line 35; figures 1,2 * ---	1,5,7,9	
A	US-A-4 481 382 (VILLA-REAL) * column 3, line 10 - column 5, line 65; figures 1-6 * ---	1,7,9	
A	US-A-5 027 394 (ONO ET AL) * column 2, line 55 - column 3, line 30; figures 1-7 * -----	2	
			TECHNICAL FIELDS SEARCHED (Int.CI.5)
			H04M
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 15 December 1993	Examiner Delangue, P
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	

EPO FORM 1503 03.82 / PWS/C01

(19) **KOREAN INTELLECTUAL PROPERTY OFFICE**

**KOREAN PATENT ABSTRACTS**

(11)Publication number: **1020000036647**  
(43)Date of publication of application: **05.07.2000** **A**

(21)Application number: **1020000015117** (71)Applicant: **ITCEN COMMUNICATION CO., LTD.**  
(22)Date of filing: **24.03.2000** (72)Inventor: **YOO, U YEONG**  
(30)Priority: **..**  
(51)Int. Cl **G06F 17/30**

(54) **SEARCH METHOD USING IMAGE INFORMATION**

(57) Abstract:

PURPOSE: A search method using image information is provided for a convenient search technique by enabling users to instinctively find necessary information among searched results of search engines displayed in image.  
CONSTITUTION: A search method using image information is consisted of the three steps. A first step is for a user to connect to a site of search engine so as to search information. A second step is for the user to input query. A third step is for the search engine to display relevant image information after finding search results related to the query. A home page or a web page of a web site displayed as a search result, and specific icon, banner, or banner or icon using motion picture can be the image information. The home page is displayed as a small size icon made of itself and so, users can instinctively know whether the home page contains the needed information or not by seeing the icon. The site of a search engine should build an image database about information to be displayed as search result in advance, and shows image information, sometimes with text information, in case that there is a search request.



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Legal Status

(19) 대한민국특허청(KR)  
(12) 공개특허공보(A)

(51) Int. Cl.<sup>7</sup> (11) 공개번호 특2000-0036647  
G06F 17/30 (43) 공개일자 2000년07월05일

(21) 출원번호 10-2000-0015117  
(22) 출원일자 2000년03월24일  
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심사청구 : 있음

(54) 이미지 정보를 이용한 검색방법

요약

본 발명은 인터넷상에서 검색엔진을 이용하여 원하는 정보를 검색한 경우, 검색결과를 단순한 텍스트가 아닌 이미지 정보를 디스플레이 함으로써 시각적 효과에 의해 보다 효율적인 검색이 가능한 이미지 검색 시스템에 관한 것이다.

본 발명의 이미지 정보를 이용한 검색방법은 인터넷상에서 정보를 검색하고자 하는 사용자가 검색엔진 사이트에 접속하고, 상기 사용자가 검색하고자 하는 검색어를 입력하고, 검색엔진 서버에서 상기 검색어에 해당하는 검색결과를 찾아 해당 이미지 정보를 출력하고, 출력된 이미지 정보 중의 어느 하나를 클릭하여 해당 웹페이지로 접속하는 단계로 구성된다. 상기 이미지 정보는 해당 웹사이트의 홈페이지나 특정 웹페이지가 될 수도 있고, 특정한 아이콘이나 배너 또는 동영상을 이용한 배너나 아이콘이 될 수도 있다.

본 발명의 이미지 정보를 이용한 검색방법을 이용할 경우, 단순한 텍스트가 아닌 이미지 정보를 출력함으로써 시각적 효과에 의해 검색결과를 보다 신속하고 직관적으로 파악할 수 있어 검색이 용이한 장점이 있다.

도면도

도1

검색식

도면의 간단한 설명

도1은 본 발명의 이미지 정보를 이용한 검색방법에 의해 출력된 검색결과물의 일 예이다.

도면의 상세한 설명

발명의 목적

발명이 속하는 기술 및 그 분야의 종래기술

본 발명은 이미지 검색 시스템이다. 보다 구체적으로, 인터넷상에서 검색엔진을 이용하여 원하는 정보를 검색한 경우, 검색결과를 단순한 텍스트가 아닌 이미지 정보를 디스플레이 함으로써 시각적 효과에 의해 보다 효율적인 검색이 가능한 이미지 검색 시스템에 관한 것이다.

인터넷상에서 원하는 정보를 찾기 위해 통상적으로 검색엔진을 이용한다. 사용자가 특정한 검색엔진 사이트에 접속한 후 찾고자 하는 정보와 관련된 키워드를 입력하면 검색엔진에서 키워드와 관련된 정보를 찾아서 화면상에 출력하게 된다. 그러나, 종래의 검색엔진은 검색결과를 단순히 텍스트로만 출력하고 있으며, 출력결과도 상기 검색엔진에 등록된 문장이나, 웹페이지의 타이틀과 같은 정보만을 출력할 뿐이다.

그러나, 최근에는 인터넷의 이용자가 폭발적으로 증가하고 인터넷상의 정보 또한 폭발적으로 증가하면서 검색엔진을 이용하여 자료를 검색한다는 것도 그다지 용이하지 않게 되었다. 즉, 내가 원하는 정보만을 검색할 수 있어야 하나, 너무 많은 검색결과가 출력됨으로써 정작 내가 원하는 정보를 찾기가 쉽지 않다. 또한, 텍스트로 출력된 검색결과만을 보고서 내가 원하는 정보인지를 알기 어려운 경우가 많으며 일일이 모든 검색결과를 조회해 볼 수밖에 없고 원하는 정보를 찾는데 많은 시간과 노력을 필요로 하게

된다.

**발명이 이루고자 하는 기술적 과제**

본 발명의 목적은 검색엔진의 검색결과를 이미지 정보로 출력함으로써 사용자가 검색결과 중에서 자신이 원하는 정보를 직관적으로 찾을 수 있어 검색이 용이한 검색방법을 제공하는 것이다.

**발명의 구성 및 작용**

본 발명의 이미지 정보를 이용한 검색방법은 인터넷상에서 정보를 검색하고자 하는 사용자가 검색엔진 사이트에 접속하고, 상기 사용자가 검색하고자 하는 검색어를 입력하고, 검색엔진 서버에서 상기 검색어에 해당하는 검색결과를 찾아 해당 이미지 정보를 출력하는 단계로 구성된다. 상기 이미지 정보는 해당 웹사이트의 홈페이지나 특정의 웹페이지가 될 수도 있고, 특정한 아이콘이나 배너 또는 동영상상을 이용한 배너나 아이콘이 될 수도 있다.

인터넷상에서 정보를 검색하고자 하는 사용자는 인터넷을 통해 특정 검색엔진 사이트에 접속한다. 상기 검색엔진 사이트에서 자신이 찾고자 하는 정보와 관련된 검색어를 입력하여 관련 정보를 출력할 것을 요청한다. 검색엔진 사이트에서는 입력된 검색어와 관련된 정보를 검색하여 다시 사용자에게 전송하여 사용자의 단말기로 출력하며, 이러한 일련의 검색엔진을 이용한 검색과정은 통상적으로 사용하는 것이다. 다만, 본 발명에서는 검색결과를 단순한 텍스트가 아닌 이미지 정보로 출력한다는 점에서 차이가 있다. 검색엔진 사이트에서는 검색결과로써 출력되기 위한 정보에 대한 이미지 데이터베이스를 사전에 구축해 놓으며, 해당 정보에 대한 검색요청이 있을 경우 상기 이미지 정보를 출력한다. 출력시 이미지와 함께 텍스트 정보를 출력할 수도 있다.

상기 이미지 정보는 해당 웹사이트의 홈페이지 화면이 될 수도 있고, 특정 아이콘이나 배너가 될 수도 있다. 웹사이트 홈페이지의 경우 사용자가 상기 웹사이트 홈페이지만을 보더라도 그 웹사이트에서 어떠한 정보를 제공하고 있는지, 그 웹사이트가 사용자가 찾는 정보를 갖고 있는지 등에 대해서 직관적으로 알 수 있기 때문에 웹사이트 홈페이지 화면을 작은 크기로 아이콘화하여 디스플레이하는 것이다.

인터넷 웹사이트상에는 광고용으로 많은 아이콘이나 배너들이 링크되어 있다. 이러한 아이콘이나 배너들은 해당 아이콘이나 배너가 전달하고자 하는 내용을 그래픽으로 또는 동영상으로 함축적으로 표현하고 있어 사용자가 상기 아이콘이나 배너만을 보더라도 전달하고자 하는 내용을 직관적으로 파악할 수 있다. 따라서, 검색결과로써 이러한 아이콘이나 배너를 출력할 경우 사용자가 상기 아이콘이나 배너로부터 출력결과에 대한 내용을 직관적으로 파악할 수 있어 정보의 검색이 한결 용이해진다.

도 1은 본 발명의 이미지 정보를 이용한 검색방법에 의해 출력된 검색결과에 예이다. 검색결과는 이미지 정보와 텍스트가 함께 디스플레이되고 있으며, 이미지 정보는 검색결과에 해당하는 웹사이트의 홈페이지 이미지를 축소하여 디스플레이하고 있다. 이미지 정보와 함께 간단한 텍스트를 같이 부가함으로써 이미지 정보만으로 전달하기 어려운 정보를 함께 전달하며, 해당 웹사이트의 운영자나 소유자에 대한 정보와 해당 웹사이트에서 제공하는 정보 대한 간략한 요약정보가 디스플레이된다.

사용자는 검색결과중에서 자신이 원하는 정보가 있을 경우 그 이미지 정보나 텍스트 정보를 클릭하면 해당하는 웹사이트로 접속된다.

**발명의 효과**

본 발명의 이미지 정보를 이용한 검색방법을 이용할 경우, 단순한 텍스트가 아닌 이미지 정보를 출력함으로써 시각적 효과에 의해 검색결과를 보다 신속하고 직관적으로 파악할 수 있어 검색이 용이한 장점이 있다.

**(57) 청구의 범위**

**청구항 1**

인터넷상에서 정보를 검색하고자 하는 사용자가 검색엔진 사이트에 접속하고;  
상기 사용자가 검색하고자 하는 검색어를 입력하고;  
검색엔진 서버에서 상기 검색어에 해당하는 검색결과를 찾아 해당 이미지 정보를 출력하고; 그리고,  
사용자는 출력된 이미지 정보중의 어느 하나를 클릭하여 해당 웹페이지로 접속하는 단계;  
로 구성되는 것을 특징으로 하는 이미지 정보를 이용한 검색방법.

**청구항 2**

제1항에서, 상기 이미지 정보는 웹사이트의 홈페이지 화면, 특정 웹페이지 또는 그래픽 또는 동영상을 이용한 아이콘 또는 배너 중의 어느 하나인 것을 특징으로 하는 이미지 정보를 이용한 검색방법.

**결론**





<b>Electronic Acknowledgement Receipt</b>	
<b>EFS ID:</b>	6665667
<b>Application Number:</b>	12170939
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	1986
<b>Title of Invention:</b>	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS
<b>First Named Inventor/Applicant Name:</b>	Yves Behar
<b>Customer Number:</b>	37462
<b>Filer:</b>	Matthew H. Grady/Lori Biancuzzo
<b>Filer Authorized By:</b>	Matthew H. Grady
<b>Attorney Docket Number:</b>	A2029-700110
<b>Receipt Date:</b>	18-DEC-2009
<b>Filing Date:</b>	10-JUL-2008
<b>Time Stamp:</b>	11:10:17
<b>Application Type:</b>	Utility under 35 USC 111(a)

**Payment information:**

Submitted with Payment	no
------------------------	----

**File Listing:**

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Filed (SB/08)	A2029-700110_SB08.pdf	608963 2dbeb6e42d979a4a61cfbec79aa29a998a78b110	no	5

**Warnings:**

**Information:**

2	Transmittal Letter	A2029-700110_IDS_letter.pdf	34949 479414a82f7bbe33ddee710e1081295c2c23d54	no	3
<b>Warnings:</b>					
<b>Information:</b>					
3	Foreign Reference	EP_0588210.pdf	16182669 b6b83027b347162ab6f7d1ebbe4f4db65071790a	no	16
<b>Warnings:</b>					
<b>Information:</b>					
4	Foreign Reference	KR_10_2000_0036647.pdf	3021280 83b5d33e74d76c5dc053e38060bcbcb8a9a68cfa	no	4
<b>Warnings:</b>					
<b>Information:</b>					
5	NPL Documents	12416479IDS.pdf	11307668 aa3ed82cb8ac3edcb49325b9b4aef7540252a98a2	no	182
<b>Warnings:</b>					
<b>Information:</b>					
6	NPL Documents	12611282IDS.pdf	5148600 25168e367fe502c0f304b649eb6107c86f6bada	no	107
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			36304129		
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  <b>If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  <b>If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  <b>If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</b></p>					



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www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
12/170,939	07/10/2008	Yves Behar	A2029-700110

**CONFIRMATION NO. 1986**

37462  
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CAMBRIDGE, MA 02142

**PUBLICATION NOTICE**



**Title:**PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS

**Publication No.**US-2009-0244832-A1

**Publication Date:**10/01/2009

**NOTICE OF PUBLICATION OF APPLICATION**

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
12/170,939	07/10/2008	2115	1712	A2029-700110	21	5

CONFIRMATION NO. 1986

UPDATED FILING RECEIPT



37462  
LOWRIE, LANDO & ANASTASI, LLP  
ONE MAIN STREET, SUITE 1100  
CAMBRIDGE, MA 02142

Date Mailed: 11/24/2008

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

**Applicant(s)**

Yves Behar, Oakland, CA;  
Joshua Morenstein, San Francisco, CA;  
Christopher Hibmacronan, Oakland, CA;  
Naoya Edahiro, San Francisco, CA;  
Matthew David Day, San Francisco, CA;

**Power of Attorney:** The patent practitioners associated with Customer Number 37462

**Domestic Priority data as claimed by applicant**

This appln claims benefit of 61/041,365 04/01/2008

**Foreign Applications**

**If Required, Foreign Filing License Granted:** 08/15/2008

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 12/170,939**

**Projected Publication Date:** 10/01/2009

**Non-Publication Request:** No

**Early Publication Request:** No

**Title**

PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS

**Preliminary Class**

713

**PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES**

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

**LICENSE FOR FOREIGN FILING UNDER****Title 35, United States Code, Section 184****Title 37, Code of Federal Regulations, 5.11 & 5.15****GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as

page 2 of 3

set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

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**NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Yves Behar et al.  
Serial No: 12/170,939  
Confirmation No: 1986  
Filed: July 10, 2008  
For: PORTABLE COMPUTER WITH MULTIPLE DISPLAY  
CONFIGURATIONS  
Examiner: Not Yet Assigned  
Art Unit: 2115

---

**CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. §1.8(a)**

The undersigned hereby certifies that this document is being electronically filed in accordance with § 1.6(a)(4), on the 6<sup>th</sup> day of November, 2008

\_\_\_\_\_  
/Sarah M. Gates/  
Sarah M. Gates

---

Commissioner for Patents  
Alexandria, VA 22313-1450

**PRELIMINARY AMENDMENT**

Sir:

Responsive to the Notice to File Missing Parts mailed August 21, 2008, please amend the above-identified application as follows, please amend the above-identified application as follows. Changes to the Specification are shown by ~~strike through~~ (for deleted matter) and underlining (for added matter).

**Amendments to the Specification** begin on page 2 of this paper.

**Amendments to the Drawings** begin on page 3 of this paper and include attached replacement sheets.

**Remarks** begin on page 4 of this paper.

An **Appendix** including replacement drawing figures is attached.

**Amendments to the Specification**

**Please replace the paragraph beginning at page 6, line 29 with the following:**

FIG. 9 is a cross-sectional diagram of a portion of the hinge assembly of FIG. 8, taken along line ~~A-A~~ 9-9 in FIG. 8;



**Amendments to the Drawings**

Please replace Figures 1-27 contained in drawing sheets 1-25 with the attached replacement figures contained in drawing sheets 1-25. Figure 8 has been amended as shown on the attached annotated sheet. The replacement Figures contain no new matter.

**REMARKS**

Prior to examination on the merits, please enter and consider the amendments to the specification and drawings. The replacement drawings are in compliance with 37 C.F.R. 1.84 and 37 C.F.R. 1.121(d). The specification is amended as shown on page 2 of this paper to for consistency with the replacement drawings. No new matter has been added.

This application should now be in condition for allowance; a notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, please charge any such fee to Deposit Account No. 50/2762; ref. no. A2029-700110.

Respectfully submitted,  
Yves Behar et al., *Applicant*

By:                   /Sarah M. Gates/                    
Sarah M. Gates, Reg. No. 60,661  
LOWRIE, LANDO & ANASTASI, LLP  
One Main Street  
Cambridge, Massachusetts 02142  
United States of America  
Telephone: 617-395-7000  
Facsimile: 617-395-7070

Docket No.: A2029-700110

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	12170939			
<b>Filing Date:</b>	10-Jul-2008			
<b>Title of Invention:</b>	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS			
<b>First Named Inventor/Applicant Name:</b>	Yves Behar			
<b>Filer:</b>	Sarah May Gates			
<b>Attorney Docket Number:</b>	A2029-700110			
Filed as Large Entity				
<b>Utility under 35 USC 111(a) Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
Utility application filing	1011	1	330	330
Utility Search Fee	1111	1	540	540
Utility Examination Fee	1311	1	220	220
<b>Pages:</b>				
<b>Claims:</b>				
Claims in excess of 20	1202	1	52	52
Independent claims in excess of 3	1201	2	220	440
<b>Miscellaneous-Filing:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Late filing fee for oath or declaration	1051	1	130	130
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
<b>Extension-of-Time:</b>				
Extension - 1 month with \$0 paid	1251	1	130	130
<b>Miscellaneous:</b>				
<b>Total in USD (\$)</b>				<b>1842</b>

<b>Electronic Acknowledgement Receipt</b>	
<b>EFS ID:</b>	4245897
<b>Application Number:</b>	12170939
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	1986
<b>Title of Invention:</b>	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS
<b>First Named Inventor/Applicant Name:</b>	Yves Behar
<b>Customer Number:</b>	37462
<b>Filer:</b>	Sarah May Gates
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	A2029-700110
<b>Receipt Date:</b>	06-NOV-2008
<b>Filing Date:</b>	10-JUL-2008
<b>Time Stamp:</b>	18:16:16
<b>Application Type:</b>	Utility under 35 USC 111(a)

**Payment information:**

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$1842
RAM confirmation Number	5431
Deposit Account	502762
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

- Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)
- Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

<b>File Listing:</b>					
<b>Document Number</b>	<b>Document Description</b>	<b>File Name</b>	<b>File Size(Bytes)/ Message Digest</b>	<b>Multi Part /.zip</b>	<b>Pages (if appl.)</b>
1	Drawings-only black and white line drawings	A2029_Replacementfigs.pdf	530706	no	25
			955cc17623176c86091ab701d25e7cca52035a95		
<b>Warnings:</b>					
<b>Information:</b>					
2	Drawings-other than black and white line drawings	A2029_Annotated_Sheet.pdf	318695	no	1
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<b>Information:</b>					
3	Oath or Declaration filed	A2029_Declaration.pdf	110724	no	3
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<b>Warnings:</b>					
<b>Information:</b>					
4	Information Disclosure Statement Letter	A2029_IDS.pdf	27041	no	2
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<b>Warnings:</b>					
<b>Information:</b>					
5	NPL Documents	A2029_copending.pdf	1750183	no	30
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<b>Warnings:</b>					
<b>Information:</b>					
6	Extension of Time	A2029_EOT.pdf	21981	no	1
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<b>Warnings:</b>					
<b>Information:</b>					
7	Preliminary Amendment	A2029-700110_Preliminary_Amendment.pdf	31096	no	4
			dace7df83b7af4096cc935370af936c88c855814		
<b>Warnings:</b>					
<b>Information:</b>					
8	Fee Worksheet (PTO-06)	fee-info.pdf	41838	no	2
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<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			2832264		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

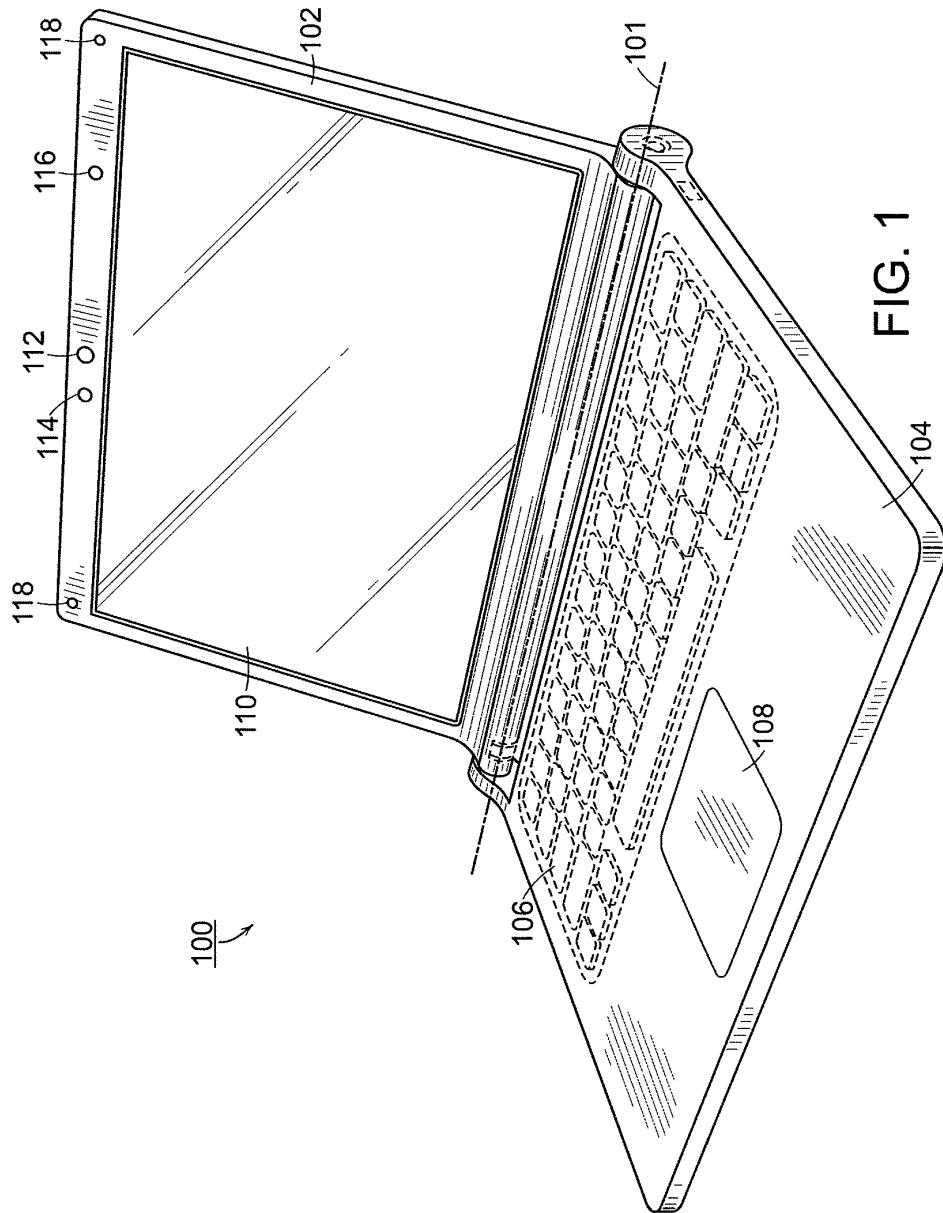


FIG. 1



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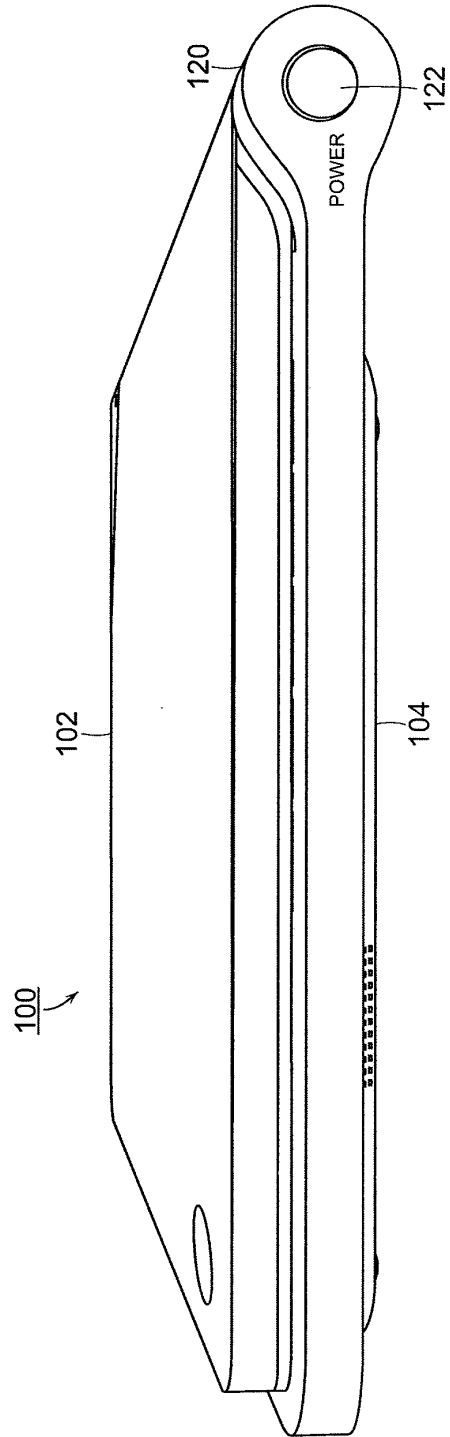


FIG. 2

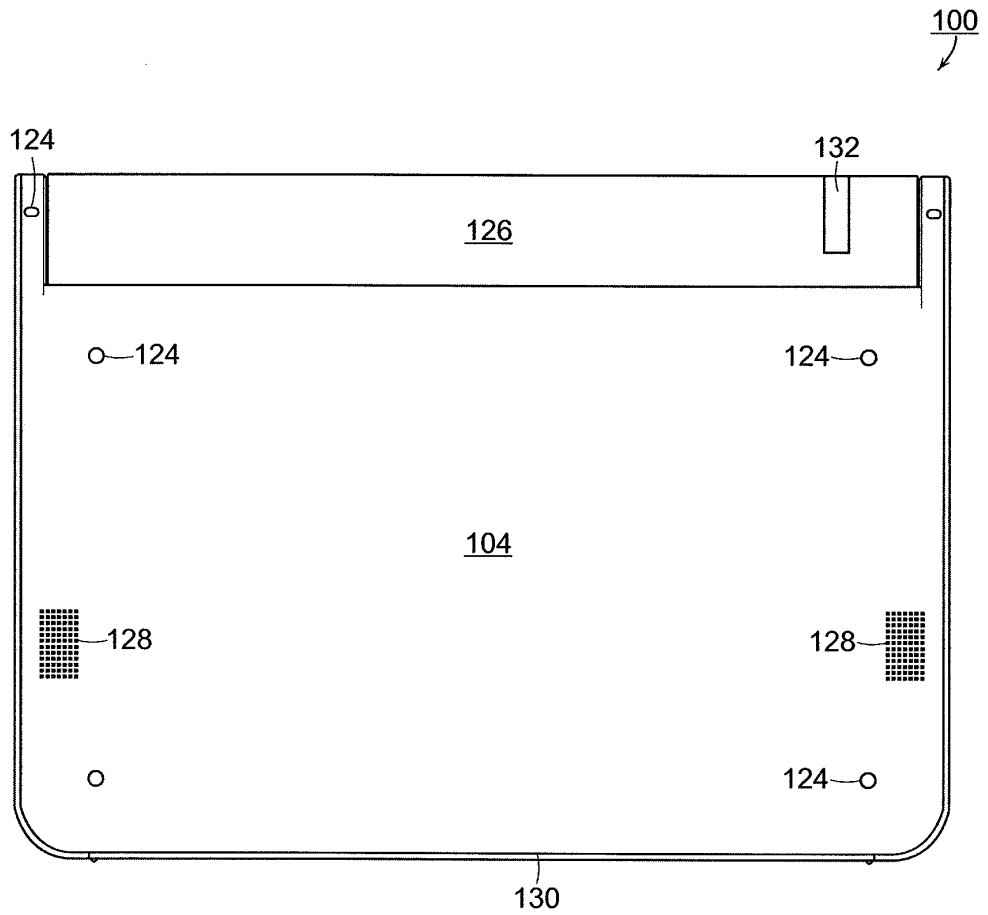


FIG. 3



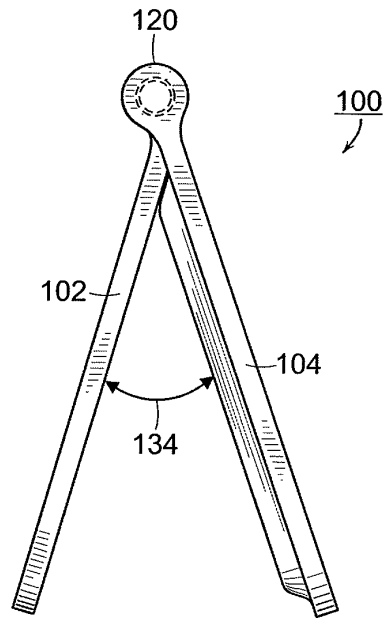


FIG. 5

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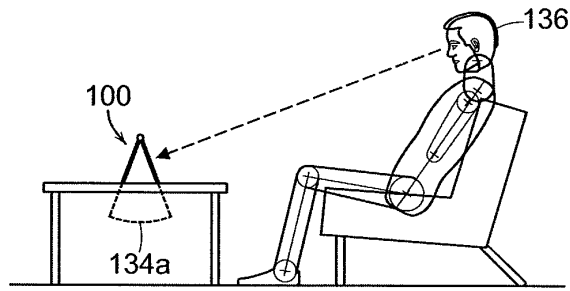


FIG. 6A

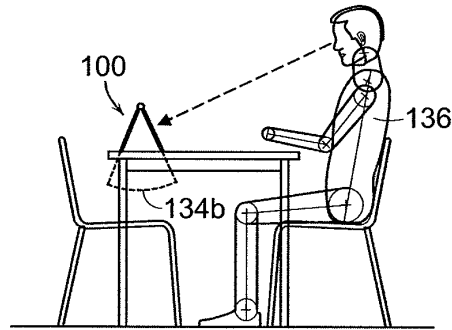


FIG. 6B

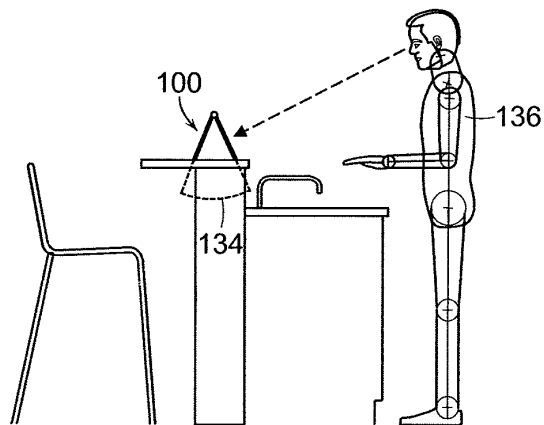


FIG. 6C

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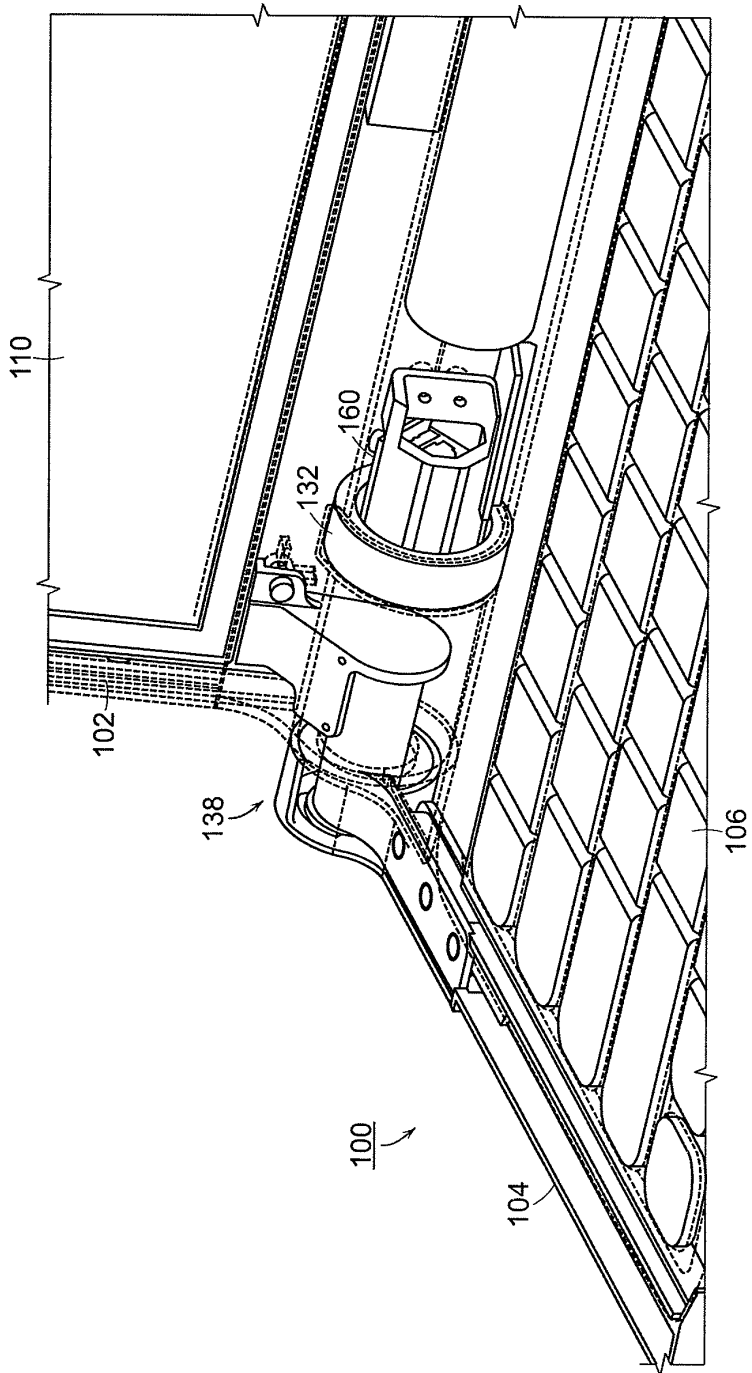


FIG. 7A

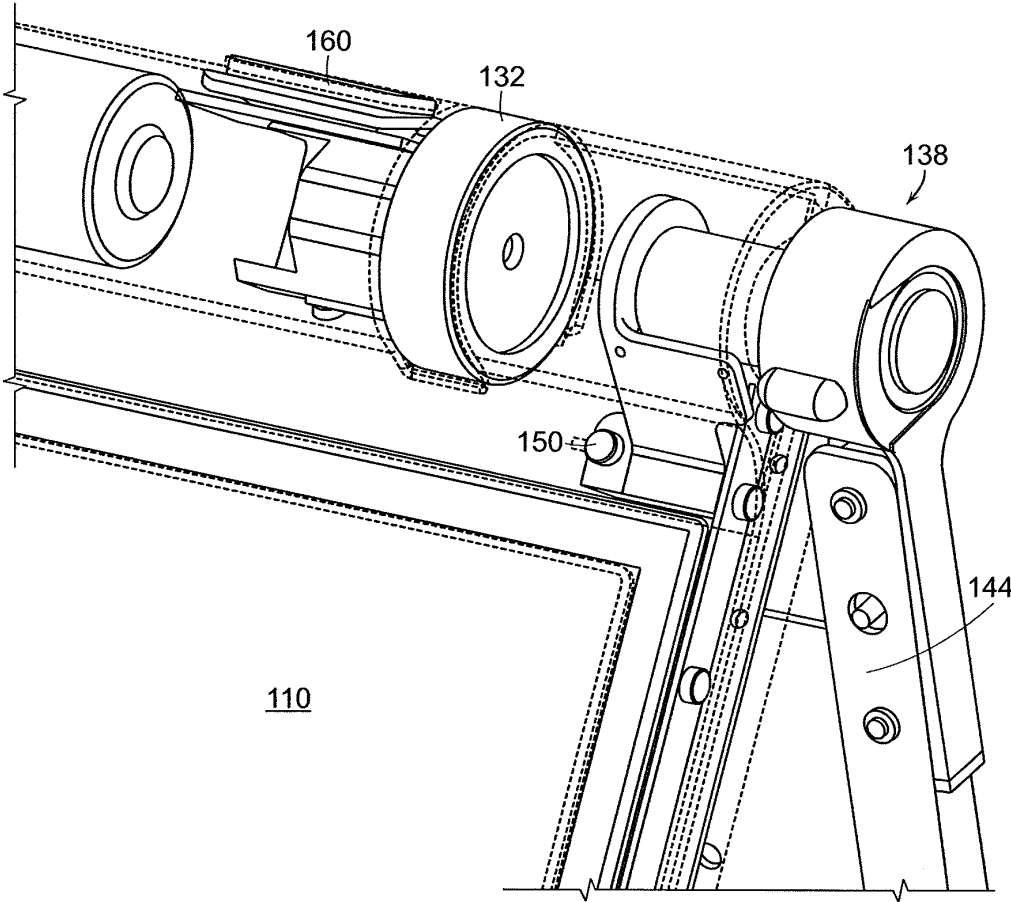


FIG. 7B

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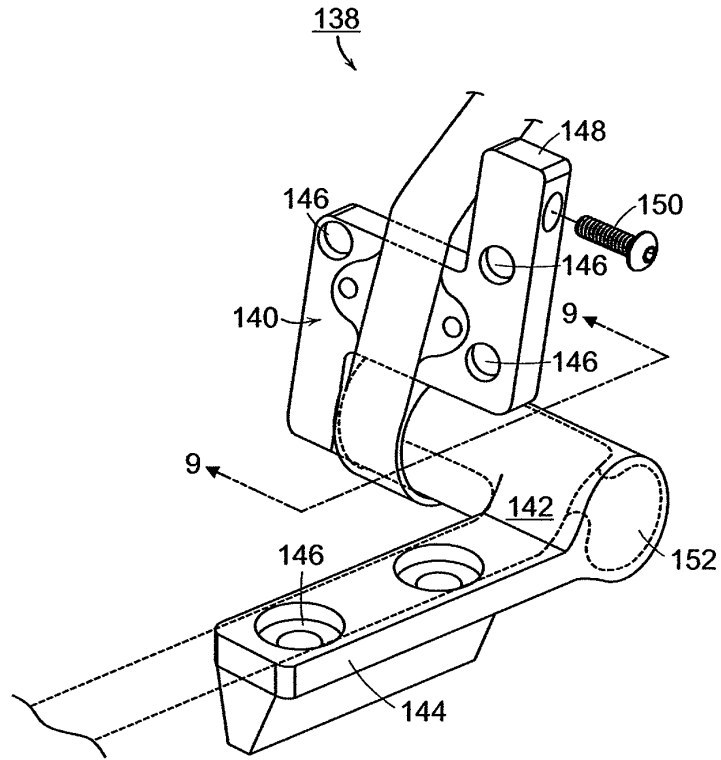


FIG. 8



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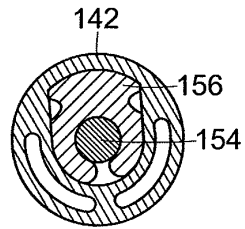


FIG. 9

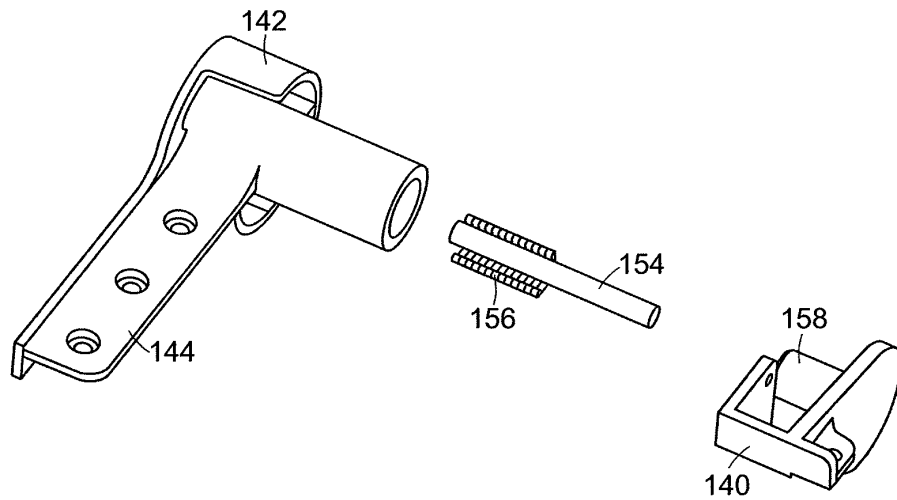


FIG. 10

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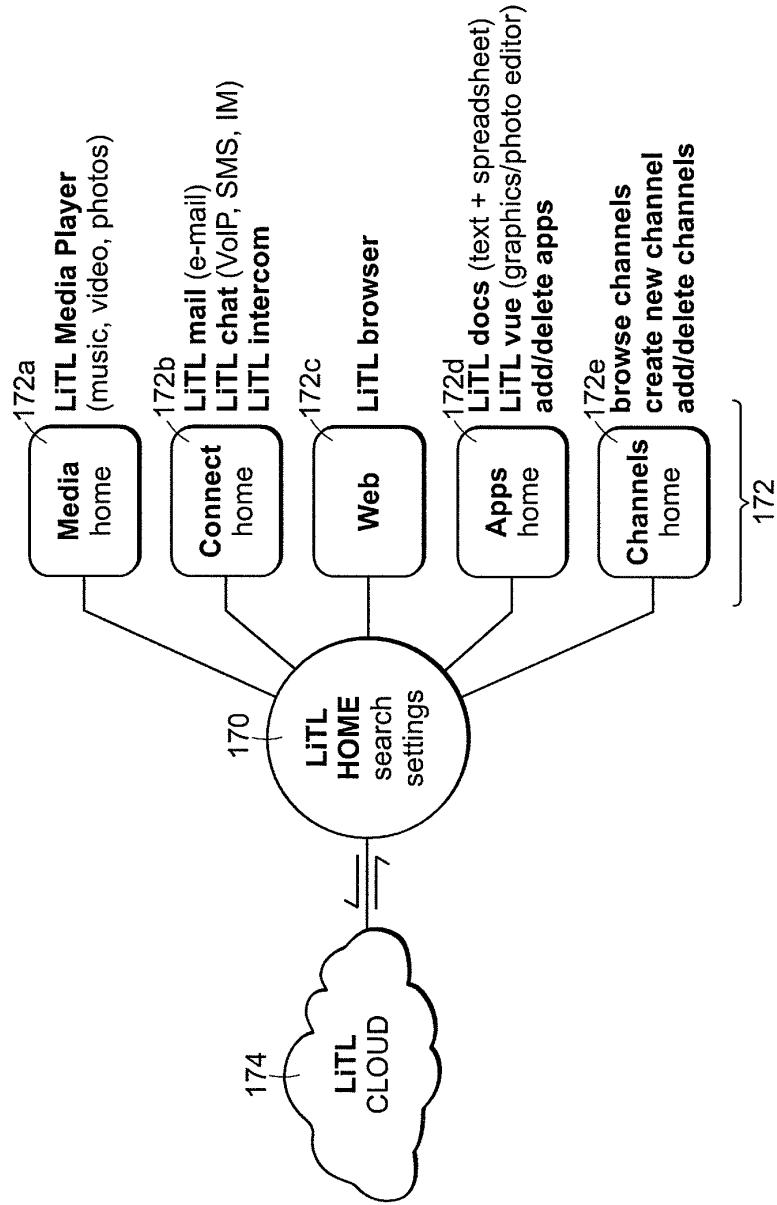


FIG. 11

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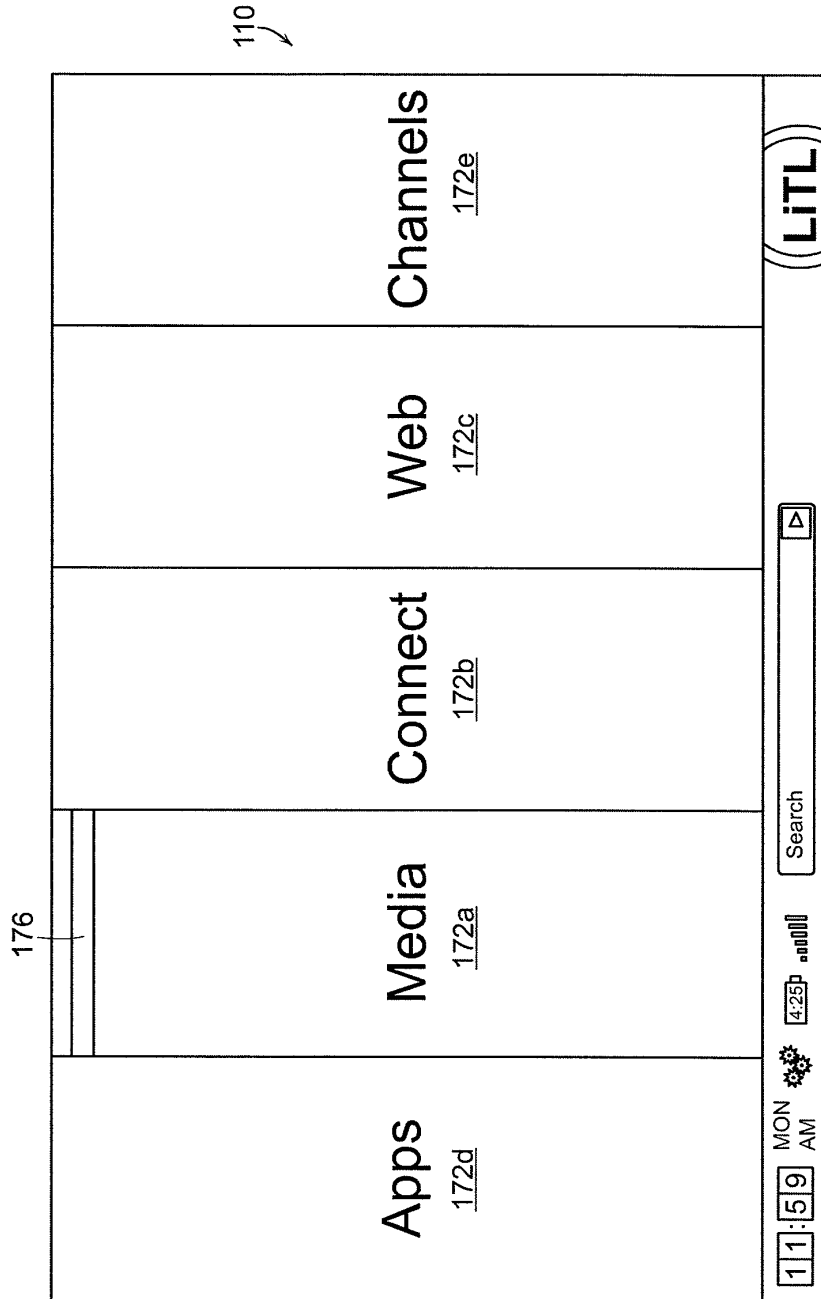


FIG. 12

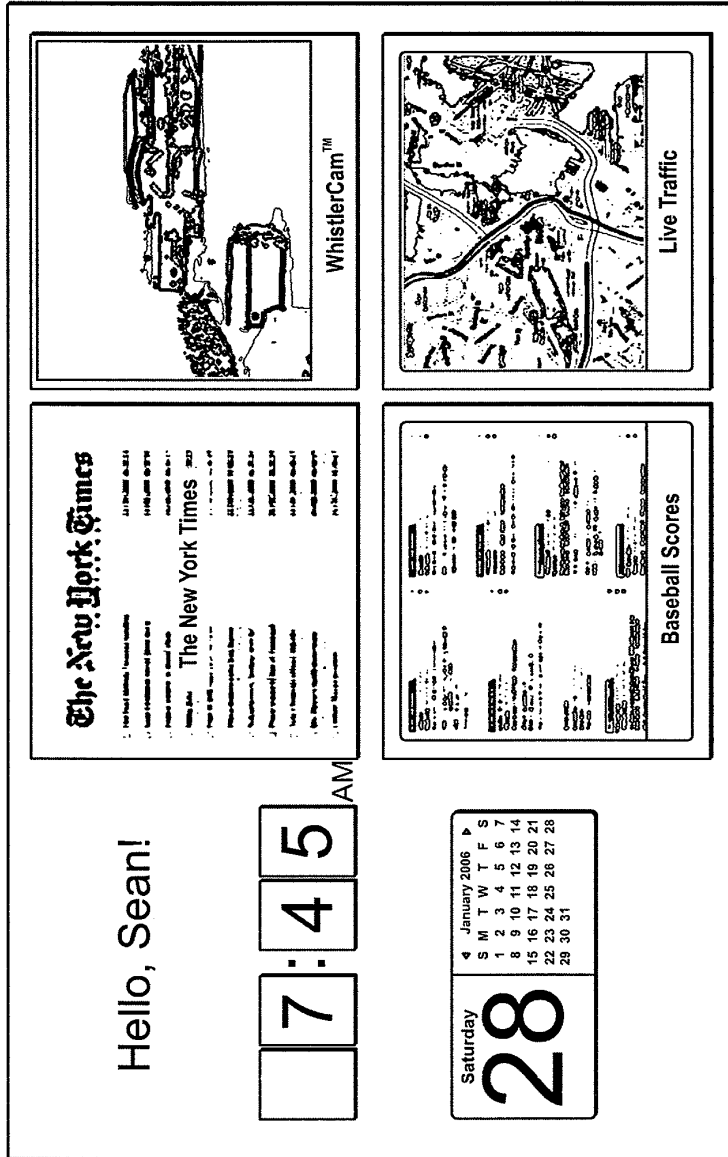


FIG. 13

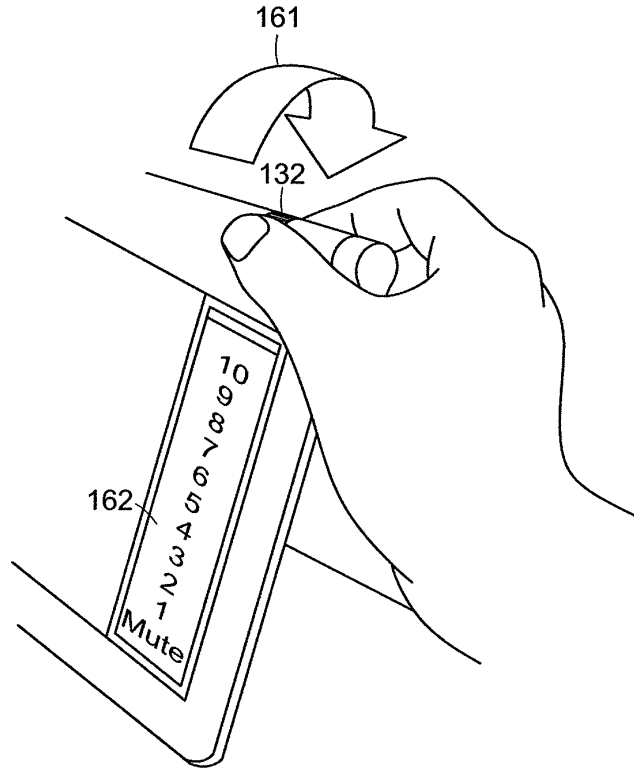


FIG. 14

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FIG. 15

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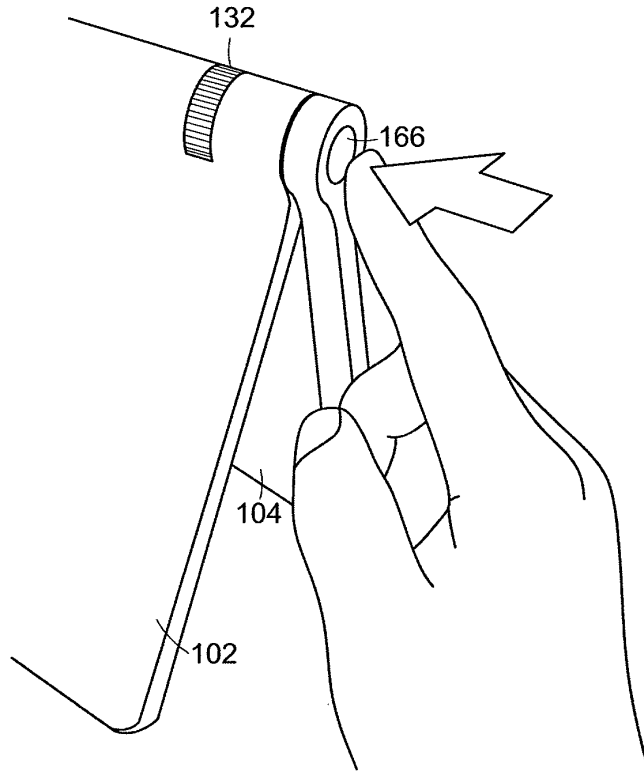


FIG. 16

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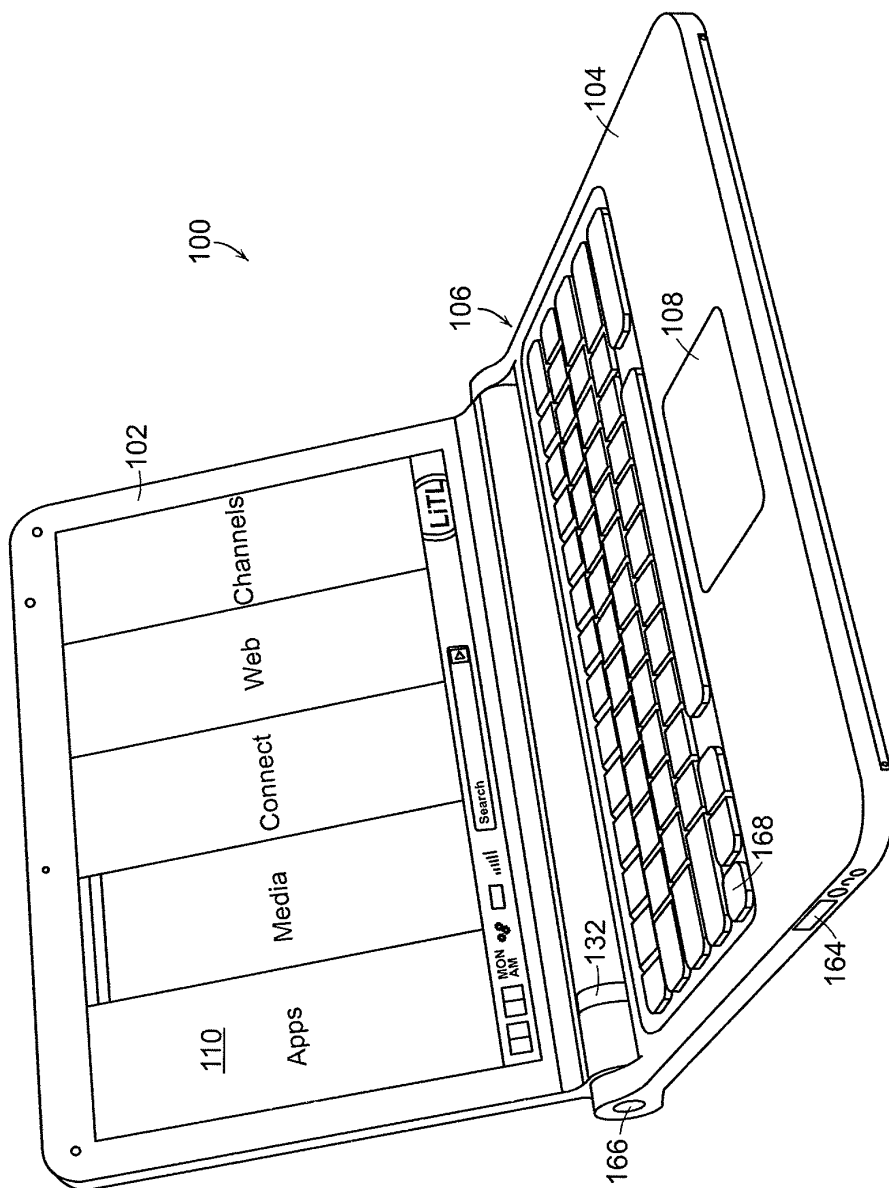


FIG. 17



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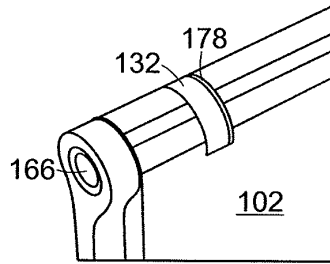


FIG. 18

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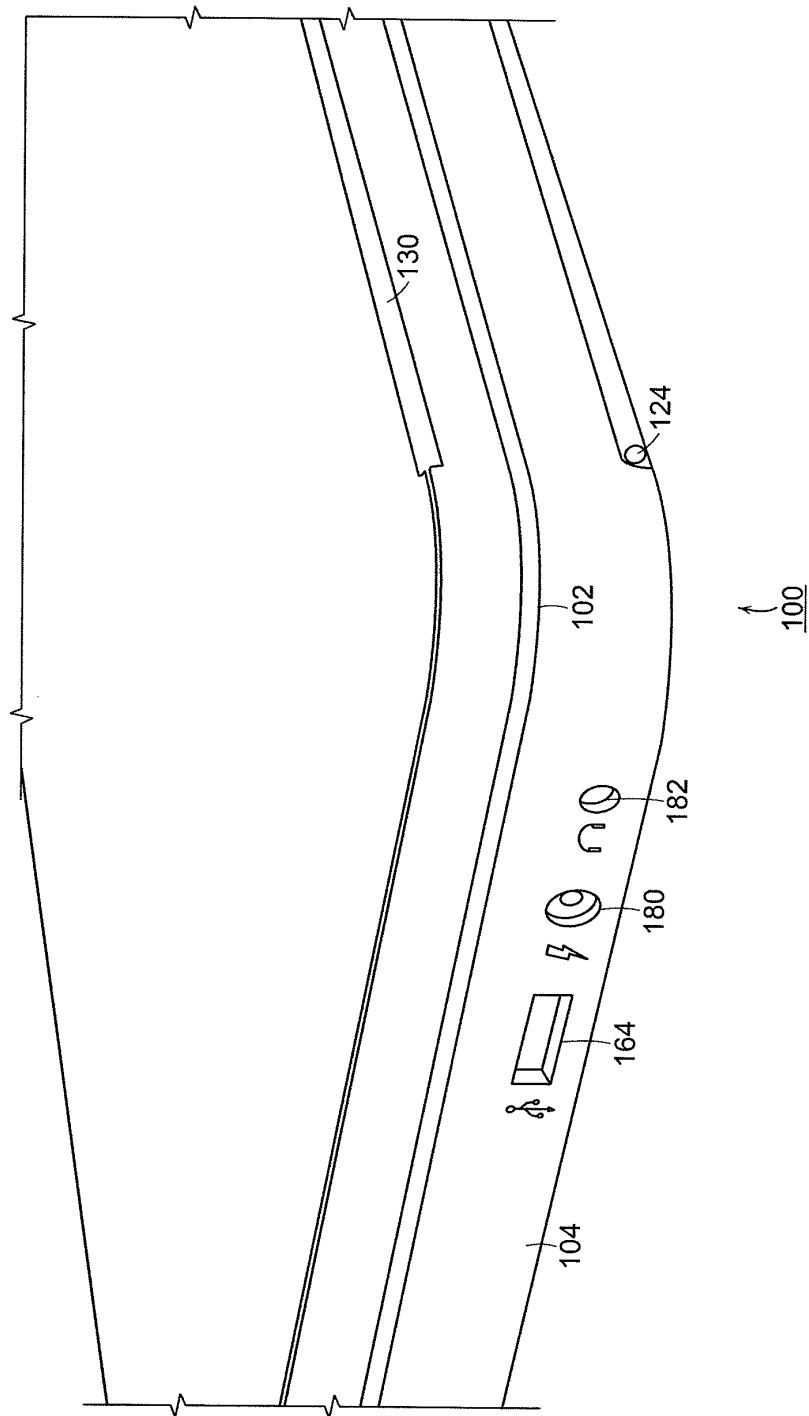


FIG. 19

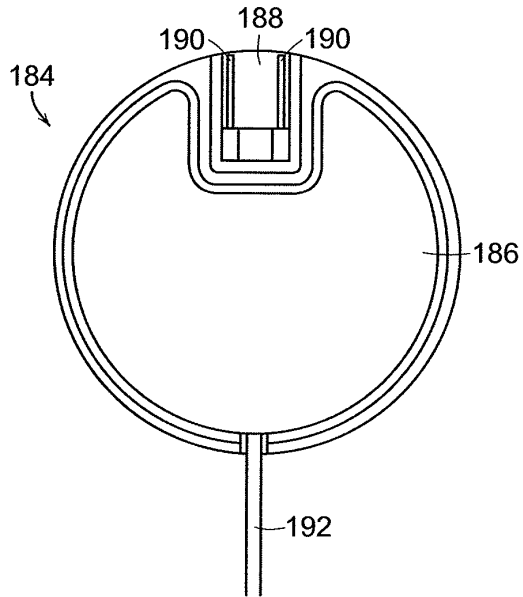


FIG. 20

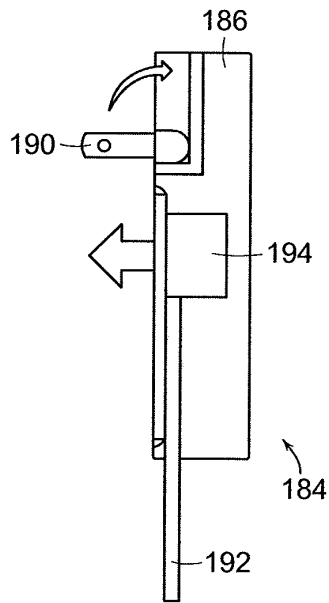


FIG. 21

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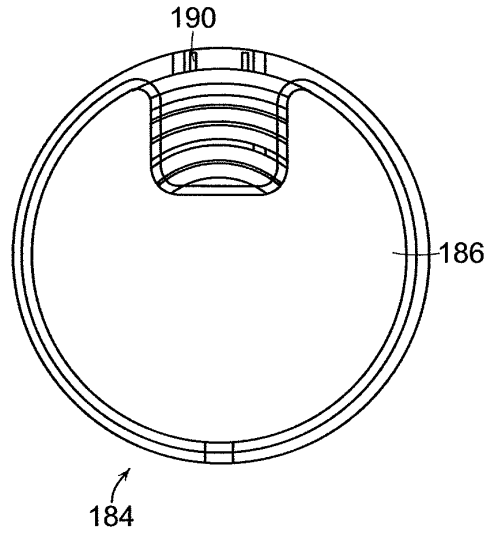


FIG. 22A

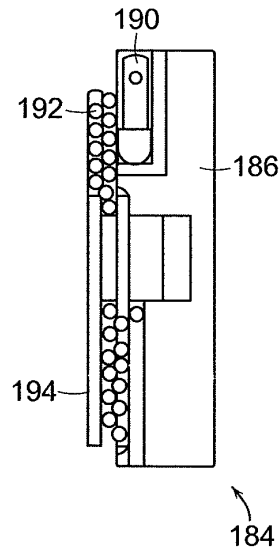


FIG. 22B

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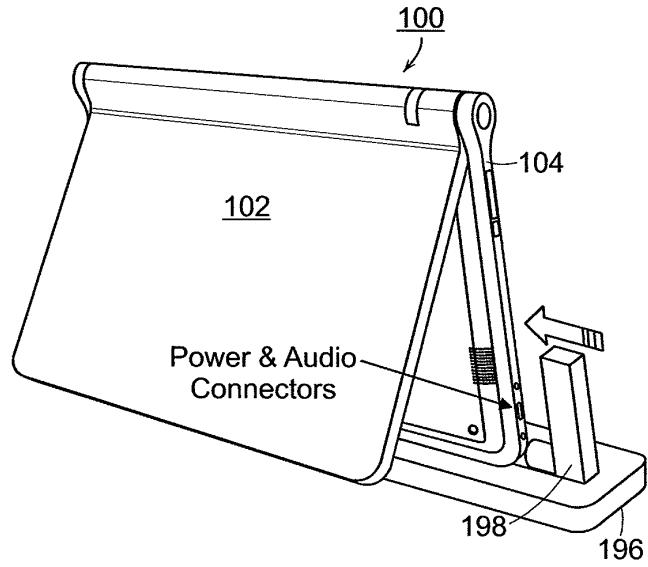


FIG. 23

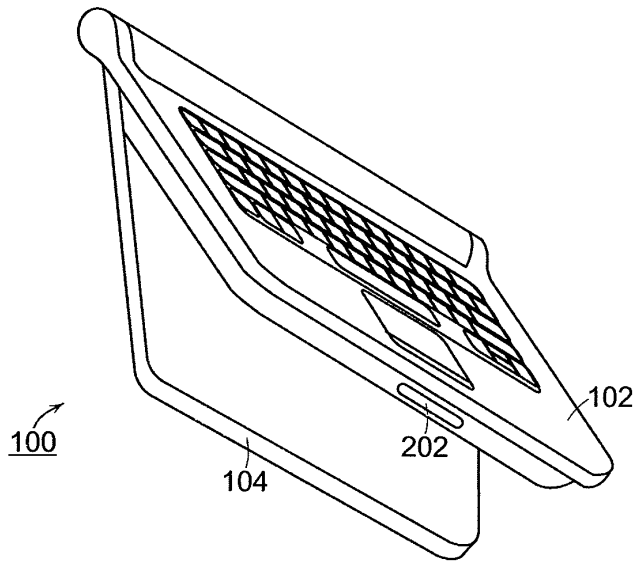


FIG. 24

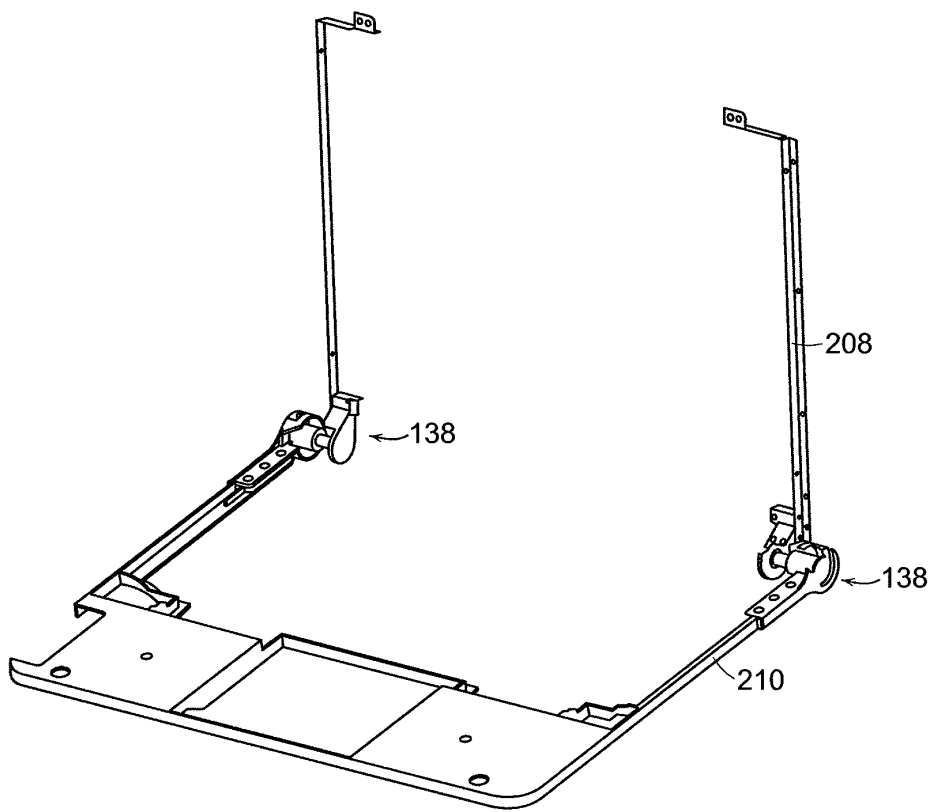


FIG. 25

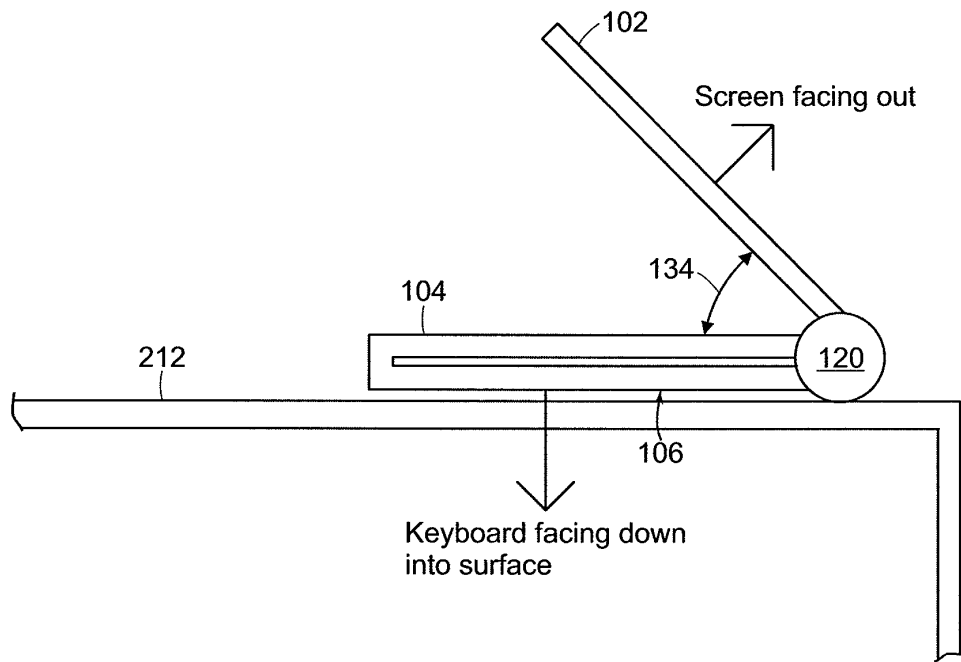


FIG. 26

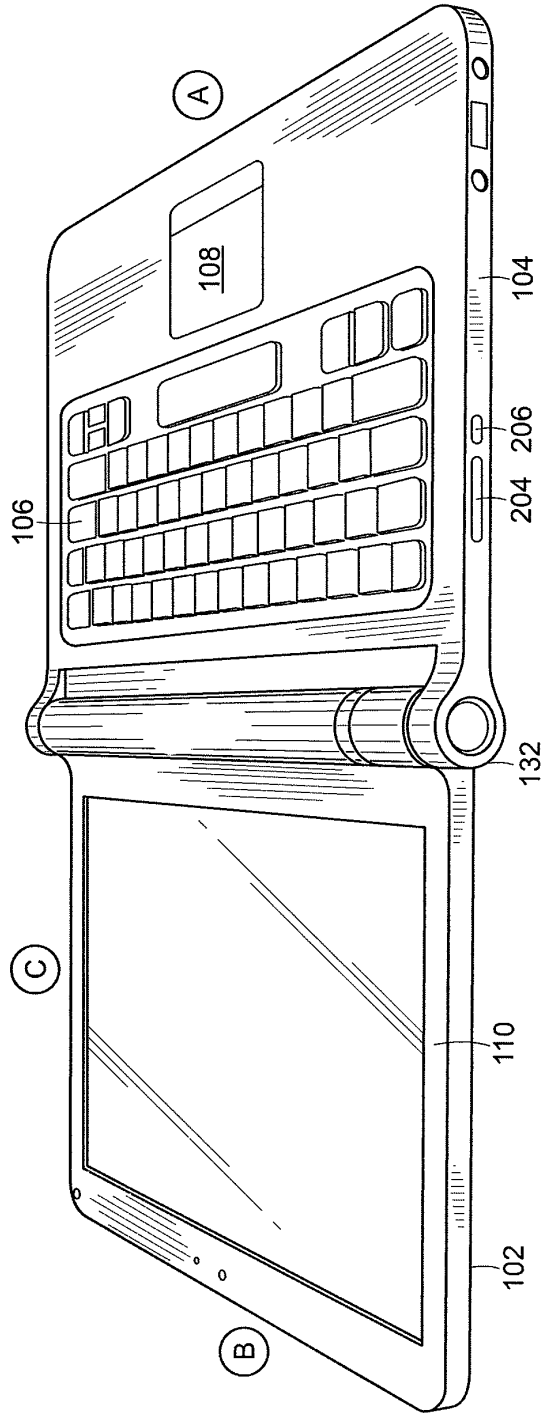


FIG. 27



**DECLARATION FOR PATENT APPLICATION**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the application entitled

**PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS**  
the specification of which was filed on July 10, 2008, as Application No. 12/170,939, bearing attorney docket No. A2029-700110.

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims.

I acknowledge the duty to disclose information which is known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

I hereby claim the benefit under Title 35, United States Code, §119(e) of any United States provisional application(s) listed below:

61/041,365                      April 1, 2008  
(Application Number)                      (filing date)

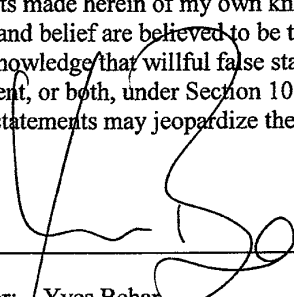
I hereby appoint the following Registered Practitioners to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

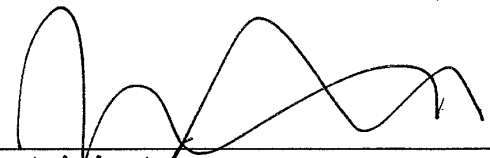
All Registered Practitioners of Lowrie, Lando & Anastasi, LLP associated with Customer Number 37462.


Address all telephone calls to John L. Welch at telephone no. (617) 395-7000.

Address all correspondence to: the Correspondence Address associated with Customer Number 37462.


I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

  
\_\_\_\_\_  
**Inventor's signature** **Date**  
Full name of first or joint inventor: Yves Behar  
Citizenship: Switzerland  
Residence: 5741 Scarborough Drive  
Oakland, CA 94611  
Post Office Address: 5741 Scarborough Drive  
Oakland, CA 94611


  
\_\_\_\_\_  
**Inventor's signature** **Date**  
Full name of first or joint inventor: Joshua Morenstein  
Citizenship: US  
Residence: 124 Downey Street  
San Francisco, CA 94117  
Post Office Address: 124 Downey Street  
San Francisco, CA 94117

  
\_\_\_\_\_  
**Inventor's signature** **Date**  
Full name of first or joint inventor: Christopher Hibmacronan  
Citizenship: US  
Residence: 2429 Damuth Street  
Oakland, CA 94602  
Post Office Address: 2429 Damuth Street  
Oakland, CA 94602

899829.1

  
\_\_\_\_\_  
Date: 10.22.08

**Inventor's signature**  
Full name of first or joint inventor: Naoya Edahiro  
Citizenship: Japan  
Residence: 375 Bartlett Street  
San Francisco, CA 94110  
Post Office Address: 375 Bartlett Street  
San Francisco, CA 94110

  
\_\_\_\_\_  
Date: 10.22.08

**Inventor's signature**  
Full name of first or joint inventor: Matthew David Day  
Citizenship: US  
Residence: 425 2<sup>nd</sup> Street #301  
San Francisco, CA 94107  
Post Office Address: 425 2<sup>nd</sup> Street #301  
San Francisco, CA 94107

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Yves Behar et al.  
Serial No: 12/170,939  
Confirmation No: 1986  
Filed: July 10, 2008  
For: PORTABLE COMPUTER WITH MULTIPLE DISPLAY  
CONFIGURATIONS  
Examiner: Not Yet Assigned  
Art Unit: 2115

---

**CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. §1.8(a)**

The undersigned hereby certifies that this document is being electronically filed in accordance with § 1.6(a)(4), on the 6<sup>th</sup> day of November, 2008

\_\_\_\_\_  
/Sarah M. Gates/  
Sarah M. Gates

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Commissioner for Patents  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT FILED PURSUANT TO THE DUTY OF  
DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98**

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

**PART I: Information Cited**

The applicant would like to bring to the Examiner's attention the following co-pending applications that may contain subject matter related to this application:

<u>Serial No.</u>	<u>Filing Date</u>	<u>Inventor(s)</u>
12/170,951	July 10, 2008	Yves Behar et al.

**PART IV: Remarks**

Documents cited anywhere in the Information Disclosure Statement, other than U.S. Patents and U.S. Patent Application Publications listed on a Form PTO/SB/08a, are enclosed unless otherwise indicated. It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;

2. Any concurrently filed form PTO/SB/08a be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;

3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

Notwithstanding any statements by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Respectfully submitted,

Yves Behar et al., Applicants

By:                   /Sarah M. Gates/                    
Sarah M. Gates, Reg. No. 60,661  
LOWRIE, LANDO & ANASTASI, LLP  
Riverfront Office Park  
One Main Street  
Cambridge, Massachusetts 02142  
Tel. (617) 395-7000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Yves Behar et al.  
Serial No: 12/170,939  
Confirmation No: 1986  
Filed: July 10, 2008  
For: PORTABLE COMPUTER WITH MULTIPLE DISPLAY  
CONFIGURATIONS  
Examiner: Not Yet Assigned  
Art Unit: 2115

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\_\_\_\_\_  
/Sarah M. Gates/  
Sarah M. Gates

---

Commissioner for Patents  
Alexandria, VA 22313-1450

**PETITION FOR ONE MONTH EXTENSION OF TIME**

Sir:

A one (1) month extension of time, to and including November 21, 2008, is requested for response to the Patent Office Communication of August 21, 2008.

The extension fee as set forth in 37 C.F.R. §1.17(a) is enclosed herewith.

Respectfully submitted,  
Yves Behar et al., Applicant

\_\_\_\_\_  
/Sarah M. Gates/  
Sarah M. Gates, Reg. No. 60,661  
LOWRIE, LANDO & ANASTASI, LLP  
Riverfront Office Park  
One Main Street  
Cambridge, Massachusetts 02142  
Tel. (617) 395-7000

9/25

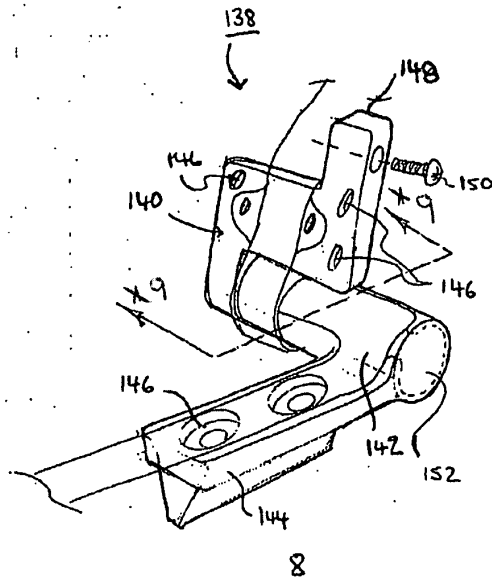


FIG. 8

## SCORE Placeholder Sheet for IFW Content

Application Number: 12170939 Document Date: 11/6/2008 6:16:16 PM

The presence of this form in the IFW record indicates that the following document type was received in electronic format on the date identified above. This content is stored in the SCORE database.

- Drawings – Other than Black and White Line Drawings

Since this was an electronic submission, there is no physical artifact folder, no artifact folder is recorded in PALM, and no paper documents or physical media exist. The TIFF images in the IFW record were created from the original documents that are stored in SCORE.

To access the documents in the SCORE database, refer to instructions developed by SIRA.

At the time of document entry (noted above):

- Examiners may access SCORE content via the eDAN interface.
- Other USPTO employees can bookmark the current SCORE URL (<http://es/ScoreAccessWeb/>).
- External customers may access SCORE content via the Public and Private PAIR interfaces.

Form Revision Date: February 8, 2006



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875					Application or Docket Number <b>12/170,939</b>		Filing Date <b>07/10/2008</b>		<input type="checkbox"/> To be Mailed				
<b>APPLICATION AS FILED – PART I</b>													
(Column 1)			(Column 2)		SMALL ENTITY <input type="checkbox"/>			OR		OTHER THAN SMALL ENTITY			
FOR		NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	OR		RATE (\$)	FEE (\$)				
<input type="checkbox"/> BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>		N/A	N/A	N/A				N/A					
<input type="checkbox"/> SEARCH FEE <small>(37 CFR 1.16(k), (l), or (m))</small>		N/A	N/A	N/A		N/A							
<input type="checkbox"/> EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>		N/A	N/A	N/A		N/A							
TOTAL CLAIMS <small>(37 CFR 1.16(i))</small>		minus 20 =	*	X \$ =		X \$ =							
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>		minus 3 =	*	X \$ =		X \$ =							
<input type="checkbox"/> APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).											
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>													
				TOTAL		TOTAL							
* If the difference in column 1 is less than zero, enter "0" in column 2.													
<b>APPLICATION AS AMENDED – PART II</b>													
(Column 1)			(Column 2)		(Column 3)			SMALL ENTITY		OR		OTHER THAN SMALL ENTITY	
AMENDMENT	<b>11/06/2008</b>	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)			
	Total <small>(37 CFR 1.16(i))</small>	* 21	Minus	** 21	= 0	X \$ =		OR	X \$52=	0			
	Independent <small>(37 CFR 1.16(h))</small>	* 5	Minus	***5	= 0	X \$ =		OR	X \$220=	0			
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>												
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>												
		TOTAL ADD'L FEE		TOTAL ADD'L FEE		TOTAL ADD'L FEE		TOTAL ADD'L FEE					
								0					
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)			
	Total <small>(37 CFR 1.16(i))</small>	*	Minus	**	=	X \$ =		OR	X \$ =				
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus	***	=	X \$ =		OR	X \$ =				
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>												
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>												
		TOTAL ADD'L FEE		TOTAL ADD'L FEE		TOTAL ADD'L FEE		TOTAL ADD'L 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.													
Legal Instrument Examiner: /ROSA HOLLAND/													

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939
	Filing Date		2008-07-10
	First Named Inventor	Yves Behar	
	Art Unit	2115	
	Examiner Name	Not Yet Assigned	
	Attorney Docket Number	A2029-700110	

U.S.PATENTS							Remove
Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	
	1	4939514		1990-07-03	Shinichi Miyazaki		
	2	5200913		1993-04-06	Jeff C. Hawkins et al.		
	3	5268817		1993-12-07	Shigenori Miyagawa et al.		
	4	5796575		1998-08-18	Sergey Gary Podwalny et al.		
	5	5949643		1999-09-07	Jeffrey Batio		
	6	5987704		1999-11-23	John G. Tang		
	7	6005767		1999-12-21	Edmund Ku et al.		
	8	6223393	B1	2001-05-01	Eric Andrew Knopf		

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939	
	Filing Date		2008-07-10	
	First Named Inventor	Yves Behar		
	Art Unit		2115	
	Examiner Name	Not Yet Assigned		
	Attorney Docket Number		A2029-700110	

	9	6262885		2001-07-17	Philip George Emma et al.	
	10	6266236	B1	2001-07-24	Edmund Ku et al.	
	11	6275376		2001-08-14	Joung-Nam Moon	
	12	6343006		2002-01-29	Jerry Moscovitch et al.	
	13	6377444		2003-04-23	Scott D. Price et al.	
	14	6510049	B2	2003-01-21	John B. Rosen	
	15	6628267	B2	2003-09-03	John Peter Karidis et al.	
	16	6697055	B1	2004-02-24	Edward Bullister	
	17	6771494	B2	2004-08-03	Kenji Shimano	
	18	6788527	B2	2004-09-07	Paul J. Doczy et al.	
	19	6829140	B2	2004-12-07	Kenji Shimano et al.	

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939	
	Filing Date		2008-07-10	
	First Named Inventor	Yves Behar		
	Art Unit		2115	
	Examiner Name	Not Yet Assigned		
	Attorney Docket Number		A2029-700110	

	20	6944012	B2	2005-09-13	Paul J. Doczy et al.	
	21	6963485	B2	2005-11-08	Seung-man Hong	
	22	7072179	B1	2006-07-04	Michael A. Curran et al.	
	23	7239508	B2	2007-07-03	David A. Ferrucci	
	24	D416003		1999-11-02	Sonja Sciefer et al.	

If you wish to add additional U.S. Patent citation information please click the Add button.

**U.S. PATENT APPLICATION PUBLICATIONS**

Examiner Initial*	Cite No	Publication Number	Kind Code <sup>1</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Published Application citation information please click the Add button.

**FOREIGN PATENT DOCUMENTS**

Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup> i	Kind Code <sup>4</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
	1							<input type="checkbox"/>

If you wish to add additional Foreign Patent Document citation information please click the Add button

**NON-PATENT LITERATURE DOCUMENTS**

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939
	Filing Date		2008-07-10
	First Named Inventor	Yves Behar	
	Art Unit		2115
	Examiner Name	Not Yet Assigned	
	Attorney Docket Number		A2029-700110

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>5</sup>
	1	http://laptop.org/en/laptop/start/ebook.shtml accessed on September 29, 2008	<input type="checkbox"/>

If you wish to add additional non-patent literature document citation information please click the Add button

**EXAMINER SIGNATURE**

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> See Kind Codes of USPTO Patent Documents at [www.USPTO.GOV](http://www.USPTO.GOV) or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		12170939
	Filing Date		2008-07-10
	First Named Inventor	Yves Behar	
	Art Unit		2115
	Examiner Name	Not Yet Assigned	
	Attorney Docket Number		A2029-700110

**CERTIFICATION STATEMENT**

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

**OR**

That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

None

**SIGNATURE**

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Sarah M. Gates/	Date (YYYY-MM-DD)	2008-10-01
Name/Print	Sarah M. Gates	Registration Number	60661

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

## Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

<b>Electronic Acknowledgement Receipt</b>	
<b>EFS ID:</b>	4042469
<b>Application Number:</b>	12170939
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	1986
<b>Title of Invention:</b>	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS
<b>First Named Inventor/Applicant Name:</b>	Yves Behar
<b>Customer Number:</b>	37462
<b>Filer:</b>	Sarah May Gates
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	A2029-700110
<b>Receipt Date:</b>	01-OCT-2008
<b>Filing Date:</b>	10-JUL-2008
<b>Time Stamp:</b>	15:52:24
<b>Application Type:</b>	Utility under 35 USC 111(a)

**Payment information:**

Submitted with Payment	no
------------------------	----

**File Listing:**

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Filed (SB/08)	A2029-700110_IDS.pdf	639514 fb5e1d064e1bc08ee06f1d6f587a34530fd56838	no	6

**Warnings:**

**Information:**



2	NPL Documents	NPL.pdf	371156 89086c175a7b2f832eac13a52ed5285f12cd0d5	no	4
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>				1010670	
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  <b>If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  <b>If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  <b>If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</b></p>					



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 4 columns: APPLICATION NUMBER (12/170,939), FILING OR 371(C) DATE (07/10/2008), FIRST NAMED APPLICANT (Yves Behar), ATTY. DOCKET NO./TITLE (A2029-700110)

CONFIRMATION NO. 1986

37462
LOWRIE, LANDO & ANASTASI, LLP
ONE MAIN STREET, SUITE 1100
CAMBRIDGE, MA 02142

FORMALITIES LETTER



Date Mailed: 08/21/2008

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

Items Required To Avoid Abandonment:

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given TWO MONTHS from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment.

- The statutory basic filing fee is missing. Applicant must submit \$310 to complete the basic filing fee for a non-small entity.
The oath or declaration is missing. A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.

The application is informal since it does not comply with the regulations for the reason(s) indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- Replacement drawings in compliance with 37 CFR 1.84 and 37 CFR 1.121(d) are required. The drawings submitted are not acceptable because:
The drawings must be reasonably free from erasures and must be free from alterations, overwriting, interlineations, folds, and copy marks.
The drawings submitted to the Office are not electronically reproducible because portions of figures 2-4, 7a, 7b, 12, 13, 17-20, 27 are missing and/or blurry.
The drawings are not in compliance with 37 CFR 1.84 because figures 2, 4, 7a, 7b, 11-13, 17, 19, 25, contain figure or view numbers that have incorrect orientation.

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

The applicant needs to satisfy supplemental fees problems indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- Additional claim fees of **\$470** as a non-small entity, including any required multiple dependent claim fee, are required. Applicant must submit the additional claim fees or cancel the additional claims for which fees are due.
- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.16(f) of **\$130** for a non-small entity, must be submitted with the missing items identified in this notice.

**SUMMARY OF FEES DUE:**

Total additional fee(s) required for this application is **\$1630** for a non-small entity

- **\$310** Statutory basic filing fee.
- **\$130** Surcharge.
- The application search fee has not been paid. Applicant must submit **\$510** to complete the search fee.
- The application examination fee has not been paid. Applicant must submit **\$210** to complete the examination fee for a non-small entity.
- Total additional claim fee(s) for this application is **\$470**
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CONFIRMATION NO. 1986

37462
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FILING RECEIPT



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Power of Attorney: None

Domestic Priority data as claimed by applicant

This appln claims benefit of 61/041,365 04/01/2008

Foreign Applications

If Required, Foreign Filing License Granted: 08/15/2008

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is US 12/170,939

Projected Publication Date: To Be Determined - pending completion of Missing Parts

Non-Publication Request: No

Early Publication Request: No

**Title**

PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS

**Preliminary Class**

713

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# PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS

## RELATED APPLICATIONS

This application claims priority under 35 U.S.C. §119(e) to U.S. Provisional Patent  
5 Application No. 61/041,365 filed April 1, 2008, entitled “PORTABLE COMPUTER WITH  
MULTIPLE DISPLAY CONFIGURATIONS,” which is incorporated herein by reference in  
its entirety.

## BACKGROUND

### 10 Field of Invention

The present invention relates generally to portable computers and, more particularly,  
to a portable computer that is configurable into different functional and positional modes.

### Discussion of Related Art

15 Portable computers, such as laptop computers or notebook computers, have become  
increasingly popular and ubiquitous in the home and workplace. Conventional portable  
computers most commonly have a “clam-shell” configuration, with a base including the  
keyboard, various ports, connectors and/or inputs (e.g., for power and connecting peripheral  
20 devices), and the majority of the electrical components (e.g., the central processing unit and  
memory), and a display component pivotably coupled to the base by a hinge. The display  
component is movable about the hinge between a closed position, with the display screen  
positioned adjacent the keyboard, and an open position, with the display screen inclined at a  
desired viewing angle.

Some portable computers are able to accept user inputs via a touch screen in addition  
25 to via conventional tools, such as a keyboard or mouse. The use of a touch screen to input  
data is sometimes referred to as operating in “tablet mode” because the computer is being  
used in a manner similar to a tablet of paper. U.S. Patent No. 6,771,494 discloses a hybrid  
tablet-type portable computer that is capable of operating either as a normal laptop computer  
receiving user input via a keyboard (“laptop mode”), or as a tablet computer receiving user  
30 input via a touch screen. The ‘494 patent further discloses that the display component of the

computer is attached to the base of the computer by hinges that allow the display to be tilted relative to the base (for laptop mode), and to be rotated and folded against the base to configure the computer into tablet mode.

Another variation of a portable computer with a moveable display is disclosed in U.S. Patent No. 6,266,236. The '236 patent discloses a computer including a base, a display member and an arm assembly coupling the display member to the base. According to the '236 patent, the arm assembly allows pivotable movement of the display member between a plurality of positions, including a notebook mode configuration, a tablet mode configuration, a presentation mode configuration, and a closed mode.

10

#### SUMMARY OF INVENTION

Aspects and embodiments of the present invention are directed to a portable computer that is configurable between a laptop mode (in which the portable computer has a conventional laptop appearance) and an easel mode in which the base of the computer and its display component stand upright forming an inverted "V," as discussed further below. The display component is pivotably coupled to the base of the portable computer by a hinge that allows the display component to be rotated or tilted about a longitudinal axis running along an interface between the base and the display component. Unlike the computers discussed in U.S. Patent No. 6,266,236 and U.S. Patent No. 6,771,494 above, the portable computer according to embodiments of the invention does not require an arm assembly, nor multiple, different hinge assemblies to be configured into the different modes. Furthermore, the portable computer according to embodiments of the invention is capable of different display modes and different functionality in the different configurations, as discussed below.

Further aspects and embodiments are directed to a portable computer having an embedded scroll wheel that can be configured to allow a user to control various features and functionality of the portable computer. For example, as discussed further below the scroll wheel can be used to navigate among information displayed on the portable computer's display and/or to alter operating modes of the portable computer, and/or to control features such as volume, display brightness, etc.



According to one embodiment, a portable computer is configurable between various modes, including a closed mode, a laptop mode, an easel mode, a flat mode and a frame mode. The portable computer may comprise a display component including a display screen, a base, and a hinge assembly at least partially housed within the base and configured to

5 pivotably couple the display component to the base. The display component may be rotatable about a longitudinal axis running along an interface between the display component and the base. In the closed mode, the display screen may be disposed substantially against the base, and rotating the display component about the longitudinal axis up to approximately 180 degrees from the closed mode may configure the portable computer into the laptop mode.

10 Rotating the display component about the longitudinal axis beyond approximately 180 degrees axis from the closed mode may configure the portable computer into the easel mode.

In one example of the portable computer, the display component is rotatable about the longitudinal axis up to approximately 320 degrees from the closed mode. In another example, the portable computer comprises a display orientation module that displays content on the

15 display screen in one of a plurality of orientations relative to the longitudinal axis. The orientation of the displayed content may be dependent on the current display mode of the portable computer, or may be configurable responsive to a user input. The portable computer may further comprise a mode sensor which detects a current display mode of the portable computer, and the display orientation module may display content on the display screen in an

20 orientation dependent on the current display mode detected by the mode sensor. Depending on the hinge assembly used, the longitudinal axis may comprises multiple parallel axes, and the hinge assembly may be configured to permit rotation of the display component about any of the multiple parallel axes to configure the portable computer between the plurality of display modes.

25 Another embodiment is directed to a portable computer comprising a base, a display component rotatably coupled to the base, and means for rotating the display component in a single direction relative to the base to configure the portable computer between a laptop mode and an easel mode.

In another embodiment of a portable computer configurable between multiple modes

30 including a laptop mode and an easel mode, the portable computer comprises a display

component, a base, and a hinge assembly configured to rotatably couple the display component to the base. The hinge assembly may be configured to permit rotation of the display component about a single axis to configure the portable computer between the laptop mode and the easel mode. In one example, the single axis is a longitudinal axis running along an interface between the display component and the base. The portable computer may further  
5 comprise a scroll wheel disposed at least partially about the longitudinal axis. In one example, the display component comprises a display screen, and the scroll wheel is configured to permit a user to manipulate content displayed on the display screen.

Another embodiment is directed to a method of automatically orienting content  
10 displayed on a portable computer. The method comprises rotating a display component of the portable computer about a longitudinal axis running along an interface between the display component and a base of the portable computer, detecting a degree of rotation of the display component relative to the base, providing a signal representative of the degree of rotation of the display component, and automatically configuring an orientation, relative to the  
15 longitudinal axis, of the content displayed on the portable computer responsive to the signal.

According to another embodiment, a portable computer comprises a base unit, a display unit including a display screen configured to display content, an orientation sensor which detects an orientation of the display unit relative to the base unit, and a display orientation module which orients the content displayed on the display screen responsive to the  
20 orientation detected by the orientation sensor.

Another embodiment of a portable computer comprises a base, a display component rotatably coupled to the base such that the display component and the base are rotatable with respect to one another about a longitudinal axis running along an interface between the display component and the base, the display component including a display screen, and a  
25 scroll wheel disposed at least partially within the base and rotatable about the longitudinal axis, the scroll wheel configured to permit a user to control at least one of operating parameters of the portable computer and content displayed on the display screen. In one example, the scroll wheel is configured to permit the user to adjust a volume of sound produced by the portable computer. In another example, the screen is configured to display at  
30 least one of a plurality of modes of content, and the scroll wheel is configured to permit the

user to select a mode of content for display by the portable computer. The portable computer may further comprise one or more navigation buttons that may be used in conjunction with the scroll wheel to control aspects of the portable computer and displayed content.

According to another embodiment, a portable computer is configurable between a plurality of display modes including a laptop mode and an easel mode, the portable computer comprising a base, a display component rotatably coupled to the base and including a screen which displays content, and a scroll wheel accessible in each of the plurality of display modes and configured to permit a user to manipulate at least one of operating parameters of the portable computer and the content displayed on the screen. In one example, the scroll wheel is disposed at least partially about an axis of rotation of the display component relative to the base.

In another embodiment, a portable computer comprises a base, a display component including a screen configured to display content, a hinge assembly configured to rotatably couple the display component to the base and to permit rotation of the display component about a longitudinal axis running along an interface between the display component and the base, and a scroll wheel disposed at least partially about the longitudinal axis.

Still other aspects, embodiments, and advantages of these exemplary aspects and embodiments, are discussed in detail below. Moreover, it is to be understood that both the foregoing information and the following detailed description are merely illustrative examples of various aspects and embodiments, and are intended to provide an overview or framework for understanding the nature and character of the claimed aspects and embodiments. Any embodiment disclosed herein may be combined with any other embodiment in any manner consistent with the objects, aims, and needs disclosed herein, and references to “an embodiment,” “some embodiments,” “an alternate embodiment,” “various embodiments,” “one embodiment” or the like are not necessarily mutually exclusive and are intended to indicate that a particular feature, structure, or characteristic described in connection with the embodiment may be included in at least one embodiment. The appearances of such terms herein are not necessarily all referring to the same embodiment. The accompanying drawings are included to provide illustration and a further understanding of the various aspects and embodiments, and are incorporated in and constitute a part of this specification. The

drawings, together with the remainder of the specification, serve to explain principles and operations of the described and claimed aspects and embodiments.

#### BRIEF DESCRIPTION OF THE DRAWINGS

5           Various aspects of at least one embodiment are discussed below with reference to the accompanying figures, which are not intended to be drawn to scale. Where technical features in the figures, detailed description or any claim are followed by reference signs, the reference signs have been included for the sole purpose of increasing the intelligibility of the figures, detailed description, and claims. Accordingly, neither the reference signs nor their absence  
10           are intended to have any limiting effect on the scope of any claim elements. In the figures, each identical or nearly identical component that is illustrated in various figures is represented by a like numeral. For purposes of clarity, not every component may be labeled in every figure. The figures are provided for the purposes of illustration and explanation and are not intended as a definition of the limits of the invention. In the figures:

15           FIG. 1 is an illustration of one example of a portable computer, according to aspects of the invention, in a “laptop” configuration;

                  FIG. 2 is a view of the portable computer of FIG. 1 in the closed position;

                  FIG. 3 is a plan view of the exterior of the bottom of the portable computer of FIG. 1;

                  FIG. 4 is a perspective view of the portable computer of FIG. 1 in the easel mode;

20           FIG. 5 is a side view of the portable computer of FIG. 4, illustrating the adjustable angle of the easel mode;

                  FIGS. 6A-C are diagrams illustrating different positions of the portable computer of FIG. 4 in easel mode;

                  FIG. 7A is an illustration of a portion of the portable computer of FIG. 1 in the laptop  
25           mode, illustrating a hinge assembly according to aspects of the invention;

                  FIG. 7B is an in illustration of a portion of the portable computer of FIG. 1 in the easel mode, illustrating the hinge assembly according to aspects of the invention;

                  FIG. 8 is a diagram of one example of the hinge assembly of FIGS. 7A and 7B;

                  FIG. 9 is a cross-sectional diagram of a portion of the hinge assembly of FIG. 8, taken  
30           along line A-A in FIG. 8;

FIG. 10 is an exploded view of the hinge assembly of FIG. 8;

FIG. 11 is a block diagram of one example of a portable computer user interface architecture, according to aspects of the invention;

FIG. 12 is a screen shot illustrating one example of a graphical user interface,  
5 according to aspects of the invention;

FIG. 13 is a screen shot illustrating another example of a graphical user interface according to aspects of the invention;

FIG. 14 is an illustration of a user adjusting the scroll wheel on a portable computer in the easel mode, according to aspects of the invention;

10 FIG. 15 is an illustration of a user pressing the scroll wheel on a portable computer, according to aspects of the invention;

FIG. 16 is an illustration of a user pressing a navigation button on the portable computer, according to aspects of the invention;

15 FIG. 17 is an illustration of an example of the portable computer in the laptop mode, according to aspects of the invention;

FIG. 18 is a view of a portion of the portable computer illustrating a wireless signal indicator feature, according to aspects of the invention;

FIG. 19 is a view of a portion of the portable computer in the closed position, according to aspects of the invention;

20 FIG. 20 is a plan view of one example of a power adaptor, according to aspects of the invention;

FIG. 21 is a side view of the power adaptor of FIG. 20;

FIG. 22A is another side view of the power adaptor of FIG. 20, illustrating the power cord would around a cord spool, according to aspects of the invention;

25 FIG. 22B is a plan view of the power adaptor of FIG. 22A

FIG. 23 is an illustration of the portable computer coupled to a docking station, according to aspects of the invention;

FIG. 24 is an illustration of the portable computer showing one example of a docking connector, according to aspects of the invention;

FIG. 24 is an illustration of a hinge assembly coupled to a computer frame, according to aspects of the invention;

FIG. 26 is an illustration of the portable computer configured into a “frame” mode, according to aspects of the invention; and

5 FIG. 27 is an illustration of the portable computer configured into a “flat” mode, according to aspects of the invention.

#### DETAILED DESCRIPTION

Aspects and embodiments are directed to a portable computer that is configurable  
10 between different operating modes, including a laptop mode (in which the portable computer has a conventional laptop appearance), a flat mode, a frame mode, and an easel mode in which the base of the computer and its display component stand vertically forming an inverted “V,” as discussed further below. The portable computer is capable of different display formats and functionality in the different modes, and includes a graphical user  
15 interface that may work seamlessly with the computer hardware to provide a unified, comfortable, holistic user experience. In particular, the portable computer may provide access to a wide array of functions, both those traditionally provided by computing devices and those traditionally provided by other passive information devices. For example, the hardware and software, including the graphical user interface, of the portable computer may be focused  
20 toward providing access to entertainment media, such as audio and video (e.g., playing music, streaming video, viewing photographs, etc.), email, and internet, while also providing state-of-the-art computer processing capability.

It is to be appreciated that embodiments of the methods and apparatuses discussed herein are not limited in application to the details of construction and the arrangement of  
25 components set forth in the following description or illustrated in the accompanying drawings. The methods and apparatuses are capable of implementation in other embodiments and of being practiced or of being carried out in various ways. Examples of specific implementations are provided herein for illustrative purposes only and are not intended to be limiting. In particular, acts, elements and features discussed in connection with any one or  
30 more embodiments are not intended to be excluded from a similar role in any other

embodiments. Also, the phraseology and terminology used herein is for the purpose of description and should not be regarded as limiting. Any references to embodiments or elements or acts of the systems and methods herein referred to in the singular may also embrace embodiments including a plurality of these elements, and any references in plural to  
5 any embodiment or element or act herein may also embrace embodiments including only a single element. References in the singular or plural form are not intended to limit the presently disclosed systems or methods, their components, acts, or elements. The use herein of “including,” “comprising,” “having,” “containing,” “involving,” and variations thereof is meant to encompass the items listed thereafter and equivalents thereof as well as additional  
10 items. References to “or” may be construed as inclusive so that any terms described using “or” may indicate any of a single, more than one, and all of the described terms.

Referring to FIG. 1, there is illustrated one example of a portable computer according to aspects of the invention. In FIG. 1, the portable computer 100 is illustrated in the “laptop” mode, with the display component 102 inclined at a viewing angle from the base 104. The  
15 display component 102 is pivotably coupled to the base 104 by a hinge assembly (not shown) that allows the display component to be rotated with respect to the base. The hinge assembly may include a single or multiple hinges, which may be any of a variety of hinge types, including, but not limited, to single-axis hinges, multiple-axis hinges, geared hinges, etc. In one example, the hinge assembly allows the display component 102 to be rotated (or tilted)  
20 about a longitudinal axis 101 running along an interface between the display component and the base 104, as illustrated in FIG. 1 and discussed further below. The base 104 includes a keyboard 106 and internal electronic components (not shown), such as a central processing unit, memory, and other components necessary to operate the portable computer, as known to those skilled in the art. In some embodiments, the base 104 may also include a touch pad 108  
25 or trackball (not shown) for receiving user commands, as known to those skilled in the art.

Still referring to FIG. 1, the display component 102 includes a display screen 110, and may also include a camera 112, microphone 114, and infrared receiver 116, as discussed further below. It is to be appreciated that the locations of the camera 112, microphone 114 and infrared receiver 114 are not limited to the example illustrated in FIG. 1, and may be  
30 placed in other locations on the display component 102 and/or base 104, as would be

recognized by those skilled in the art. The display component 102 may also include cushions 118 that provide soft contact points between the base 104 and the display component 102 when the portable computer is closed. In one example, the cushions 118 are made of rubber. However, it is to be appreciated that the invention is not so limited, and the cushions 118 may  
5 comprise materials other than rubber, including, for example, a polymer, felt, or other suitable materials as would be recognized by those skilled in the art.

Referring to FIG. 2, there is illustrated a side view of the portable computer 100 of FIG. 1 in the closed configuration. As is the case for conventional clam-shell type portable computers, when the portable computer 100 is closed, the display screen is disposed “face  
10 down” against the keyboard of the base 104. In the illustrated embodiment, the base 104 includes a rounded portion 120 that houses the hinge (not shown) that pivotably couples the display component 102 to the base, as discussed further below. It is to be appreciated that the rounded portion 120 is not limited to having a round shape, but may instead have another shape, which may be dependent on the type of hinge used. In one embodiment, a power  
15 button 122, configured to turn the portable computer ON and OFF, may also be provided on the rounded portion 120, as illustrated in FIG. 2. However, it is to be appreciated that the invention is not so limited, and the power button 122 may be located elsewhere on the base 104. In one example, the power button 122 may be slightly recessed relative to the surface of the base 104, so as decrease the potential for the power button to be accidentally pressed.

20 An exterior view of the bottom of the base 104 (the underside of the portable computer 100) is illustrated in FIG. 3. As can be seen in FIG. 3, in one embodiment, the base 104 includes a plurality of feet 124. In one example, the feet 124 are made of rubber; however, it is to be appreciated that the invention is not so limited and the feet may be made of another material, such as, for example, a polymer or felt. A ventilation slit 126 may be provided near  
25 an interface between the base 104 and the display component 102, as illustrated, or elsewhere as may be desired, to allow heat to dissipate from the internal electronic components in the base. The base 104 may also include one or more speakers 128. In one example, the base 104 includes two stereo speakers 128, positioned at either side of the base, as illustrated in FIG. 3; however, it is to be appreciated that the portable computer 100 may comprise more or  
30 fewer speakers which may be placed at any location on the base 104. A scroll wheel 132 may



be provided to allow a user to control certain functionality of the portable computer 100, such as navigating web pages, controlling speaker volume, selecting programs, etc., as discussed further below.

According to one embodiment, the base 104 may comprise a cushioning strip 130  
5 disposed along an edge of the base 104 opposite to the interface between the display component 102 and the base, as illustrated in FIG. 3. The cushioning strip 130, which may comprise rubber, a polymer, or another suitable material, may serve as a “foot” when the portable computer is configured into the easel mode, as discussed further below. In one  
10 embodiment, the display component 102 may be provided with a similar cushioning strip that may serve as a second supporting foot when the portable computer is configured into the easel mode.

Referring to FIG. 4, there is illustrated an example of the portable computer 100 configured into the easel mode. To convert the portable computer 100 from the laptop mode (or closed position) into the easel mode, the display component 102 may be folded away from  
15 the base 104, in the same direction as to open the computer (i.e., to configure the computer from the closed position into the laptop mode) such that the base 104 and the display component 102 form an inverted “V” shape with the bottom of the base and the back of the display component face another, as illustrated in FIG. 4. In the easel mode, the display screen  
20 110 is visible and accessible on one side of the portable computer 100 and the keyboard 106 (not shown in FIG. 4) is visible and accessible on the other side.

As illustrated in FIG. 4, in one embodiment, the portable computer may comprise integrated hardware volume controls, including a volume control button 204 and a mute button 206. In one example, the volume control button 204 may be a rocker switch that  
25 allows a user to easily increase or decrease the volume of audio played through the speakers 128. When the user presses the volume control button 204, a volume indicator may temporarily appear on the display screen 110, to provide a visual indication of the amount by which the volume is being increased or decreased. Similarly, pressing the mute button 206 may cause a visual indication that the volume is muted to appear on the display screen 110.

According to one embodiment, when the portable computer 100 is configured into the  
30 easel mode, the visual display on the display screen 110 is automatically rotated 180 degrees

such that the information appears “right-way-up,” even through the display screen is upside-down compared to when the portable computer is in the laptop mode. Thus, a user may simply “flip” the portable computer 100 into the easel mode and immediately be able to comfortably view information on the display screen 110, without having to access display screen controls to adjust the orientation of the visual display. In one embodiment, the portable computer 100 includes an orientation (or mode) sensor that is configured to detect whether the portable computer is in the laptop mode or the easel mode, and to adjust the display accordingly. The orientation sensor may be incorporated into the base component 104, for example, underneath the keyboard 106, or into the display component. In one example, locating the orientation sensor in the display component 102, rather than the base 104, may provide more robust detection and therefore, may be presently preferred in some embodiments. The orientation sensor may be used to determine a precise relative orientation of the base component 104 with respect to the display component 102, or vice versa, for example, to determine whether the device is in the laptop mode, easel mode, or some point in between the two modes. In one example, the orientation sensor includes an accelerometer whose output is fed to the computer operating system (or to dedicated logic circuitry) which then triggers a display inversion as appropriate.

Accelerometers have been used in portable devices such as cellular phones, media players or computers, as sudden motion sensors, or “drop detectors,” to protect against hard drive crashes in the event that the device is dropped. By contrast, however, the accelerometer in the portable computer according to an embodiment of the invention is not used to detect motion of the overall computer, but rather to detect a configuration of the portable computer 100 (e.g., laptop mode or easel mode), particularly, to detect an orientation of the display component 102 relative to the base component 104. In one example, information from the accelerometer is provided to a display controller in the portable computer and used to switch the display between portrait or landscape mode, as is done in some conventional devices.

Referring to FIG. 5, when the portable computer 100 is in the easel mode, the base 104 is disposed at an angle 134 to the display component 102. This angle 134 is adjustable, for example, to allow a comfortable viewing angle to the display screen 110 to be maintained for different positions of a user 136 and of the portable computer 100, as illustrated in FIGS. 6A,

6B and 6C. For example, when the user 136 is further from the portable computer, the angle 134a (FIG. 6A) may be made smaller than the angle 134b when the user is closer to the portable computer (FIG. 6B). As discussed above, in one example, the orientation sensor (not shown) may be used to detect, either approximately or precisely, the angle 134 and to provide  
5 the information to the computer operating system.

According to one embodiment, the display component 102 is pivotably coupled to the base 104 by a hinge that allows the display component to be moved relative to the base so as to allow the portable computer 100 to be configured into the closed position, the laptop mode or the easel mode. As discussed above, in conventional “clamshell” type portable computers,  
10 the hinges that couple the display component to the base generally do not permit more than about 180 degrees of rotation of the display component. Thus, these conventional portable computers can be in a closed position or open, laptop configuration, but cannot be configured into an easel mode because the conventional hinges do not permit sufficient movement of the display component. Similarly, the tablet-type portable computers discussed above have  
15 displays that can be opened, rotated and folded such that they lie flat against the keyboard on the base, but cannot be configured into an easel mode. Although, as discussed above, U.S. Patent No. 6,266,236 discloses a computer that is configurable into a presentation mode, this requires a complex arm assembly. By contrast, the portable computer according to  
20 embodiments of the present invention may be configured into the easel mode by simply continuing to tilt or rotate the display component past the “laptop positions” until a desired easel angle 134 is reached.

Referring to FIGS. 7A and 7B, there is illustrated a portion of the portable computer 100 illustrating a hinge assembly 138 that allows the portable computer to be configured into either the laptop mode (FIG. 7A) or the easel mode (FIG. 7B), according to aspects of the  
25 invention. According to one embodiment, the hinge assembly 138 accommodates 0-320 degrees of rotation, allowing a minimum angle 134 (see FIG. 5) of 40 degrees. However, it is to be appreciated that the hinge assembly 138 may allow greater or fewer degrees of rotation, provided only that sufficient rotation is allowed so as to configure the portable computer 100 into either the laptop mode or the easel mode. As discussed above, in one embodiment the  
30 portable computer 100 includes an orientation sensor (not shown) that is configured to detect

a relative orientation of the display component 102 and the base component 104. In one example, the orientation sensor may be an accelerometer incorporated into the base component 104, as discussed above. Alternatively, the orientation sensor may be incorporated into the hinge assembly 138 and may be used to detect movement of the hinge assembly, and to translate that movement into an information about the relative orientation of the display component 102 and the base component 104 (for example, a size of the angle 134). It is also to be appreciated that the orientation sensor may include electronic or mechanical components, or a combination thereof. For example, the hinge assembly may be provide with detents that provide an indication of the mode of the portable computer.

10           As discussed above, and also illustrated in FIGS. 7A and 7B, the portable computer may also comprise a scroll wheel 132 that allows a user to adjust, control and/or select various aspects of the portable computer (e.g., wireless capability or speaker volume) or items displayed on the display screen 110. A housing 160 may contain or support various mechanical and/or electronic components (not shown) that are coupled to the scroll wheel 132 and are configured to convert physical movement of the scroll wheel into electrical signals. These electrical signals may be provided to the central processing unit of the portable computer 100 which processes the electrical signals so as to translate movement of the scroll wheel into control of a selected feature, for example, adjusting the volume of the speaker(s) or selecting a particular item displayed on the display screen, as discussed further below.

20           One embodiment of the hinge assembly 138 is illustrated in FIG. 8. The hinge assembly includes a bracket 140 rotatably coupled to a housing 142. The housing 142 may include a first flange 144 that may be fastened to an internal frame in the base 104, as illustrated in FIG. 7A. The first flange 144 may include holes 146 to allow the first flange to be fastened to the base 104 using fasteners, such as, for example, screws, rivets or bolts. The bracket 140 may include a second flange 148 that may be similarly coupled to the display component 102 using fasteners 150. In one embodiment, the display screen 110 (see FIG. 1) may be an LCD screen. As known to those skilled in the art, an LCD screen generally comprises a frame and plastic housing. In one example, the second flange 148 may be fastened to either or both of the display screen frame and the screen's plastic housing.

30           Referring to FIG. 25, there is illustrated an example of two hinge assemblies 138 coupled to

the display frame 208 of the display component, and to the base frame 210 of the base component 104. According to one embodiment, the bracket 140 and/or housing 142 may be formed of cast zinc. However, it is to be appreciated that other materials, including other metals, may be used, and the bracket 140 and/or housing 142 may be formed using a  
5 procedure other than casting, such as, for example, machining or molding.

Referring again to FIG. 8, in one embodiment, the hinge assembly 138 may also incorporate an area 152 for locating the power button (FIG. 2, 122) or a navigation control button (FIG. 4, 166), as discussed further below.

Referring to FIG. 9, there is illustrated a cross-sectional view of a portion of the hinge  
10 assembly 138 taken along line A-A in FIG. 8. As shown in FIG. 9, in one embodiment the hinge assembly 138 comprises a shaft 154 located within the hinge housing 142. The shaft 154 may be held in position within the hinge housing 142, and rotatably coupled to the housing, by torsion elements, such as springs 156. In one example, the springs 156 may be formed by stamping; however, it is to be appreciated that other methods of manufacture may  
15 be used. In one example, the hinge assembly may accommodate about 320 degrees of rotation, as discussed above, and may provide about 6.5 in-lbs in symmetric torque.

FIG. 10 is an exploded view of the hinge assembly of FIGS. 8 and 9. As shown in FIG. 10, the shaft 154 is coupled to a member 158. This member 158 may be integral with or coupled to the bracket 140 which is, in turn, fastened to the display component, as discussed  
20 above. Thus, the shaft 154 and springs 156 provide a rotatable coupling between the fixed elements of the hinge assembly, namely, the hinge housing 142 and bracket 140 which are fastened to the base 104 and display component 102 of the portable computer. In this manner, the hinge assembly allows the display component 102 to be moved relative to the base 104, thereby allowing the portable computer to be easily and quickly configured into any of the  
25 closed position, laptop mode or easel mode. For example, simply rotating or tilting the display component about the longitudinal axis 101 (see FIG. 1) up to approximately 180 degrees from the closed mode configures the portable computer into the laptop mode, and rotating the display component about the longitudinal axis 101 beyond approximately 180 degrees axis from the closed mode configures the portable computer into the easel mode.

According to one embodiment, the portable computer may include integrated “navigation” hardware that allows a user to easily and comfortably control various features and functions of the portable computer, and to manipulate content displayed on the portable computer. For example, as discussed above, the portable computer 100 may comprise a scroll wheel 132 that allows a user to control, adjust and/or select various functionality of the portable computer. According to another embodiment, the scroll wheel 132 may be used to provide “hardware navigation” through information, such as menus, icons, etc., displayed on the display screen 110, as discussed further below with reference to FIG. 17. A common display configuration used in conventional computers is a “desktop” view in which multiple icons representing links to various programs or applications are displayed over a background image. Navigation is conventionally performed using a mouse, touch pad or trackball, as known to those skilled in the art. In one embodiment, the portable computer 100 may display information on the display screen 110 in the conventional desktop configuration, and navigation may be performed using either conventional tools, such as a touchpad 108, trackball (not shown) or peripheral, for example, a mouse, that is connected to the portable computer 100 via a port 164, or the scroll wheel 132, or a combination thereof. According to another embodiment, the portable computer 100 includes a streamlined graphical user interface that supports “map” navigation. The map user interface provides a clear overview of the entire computing environment and searching capability within the environment that may be accessed using the scroll wheel 132 and, optionally, one or navigation buttons 166, 168 that may be provided on the base 104 of the portable computer 100 (button 166) and/or in the keyboard 106 (button 168), illustrated in FIG. 17. In one embodiment, the map mode of navigation is a hierarchical mode that reduces the number of items to select amongst at any stage of navigation, thereby facilitating user access with the scroll wheel 132 and, optionally, the navigation button(s) 166, 168. Of course, it is to be appreciated that the map user interface may also be navigated using conventional tools, such as a trackball, touchpad, mouse or arrow keys.

Referring to FIG. 11, there is illustrated a block diagram of one example of an architecture of the portable computer including a map user interface. The user interface “home” screen 170 that displays a plurality of modes of content 172. In the illustrated

example, the home screen 170 contains five modes of content 172; however, it is to be appreciated that the home screen may include more or fewer than five modes of content and that the modes of content may differ from the examples discussed below. According to one example, the modes of content 172 accessible via the home screen 170 may include “media” 5 172a, “connect” 172b, “web” 172c, “applications” 172d, and “channels” 172e. Using the map user interface, information, programs, features and applications may be grouped into the various modes of content 172. By selecting any mode of content 172, for example, by using the scroll wheel 132 and/or navigation buttons 166, 168, as discussed further below, the user may access the content organized within that mode. For example, the media mode 172a may 10 provide access to a medial player to play, view, search and organize media such as music, video, photos, etc. The connect mode 172b may provide access to features such as, for example, email, voice-over-IP, instant messaging, etc., and the web mode 172c may provide access to internet browsing and searching. The application mode 172d may provide access to, for example, computer applications or programs, such as word processor, spreadsheet, 15 calculator, etc. In one example, these applications or programs may be provided as web-based services rather than programs or applications residing on the portable computer 100. The channels mode 172e may provide access to different functionality of the portable computer, with the different functions or features defined as different channels. For example, a channel may include an alarm clock channel in which the portable computer is configured to 20 display a clock and can be programmed to activate an alarm, e.g., a sound, piece of music, etc., at a predetermined time. Another example of a channel may include a “photo frame” channel in which the portable computer may be configured to display a pre-selected image or set of images, etc. Another example of a channel is a “television” channel, in which the portable computer is configured to stream Internet television. In one example, a user may 25 configure particular Internet television channels (e.g., a news channel, a movie channel, a home and garden channel, etc.) into sub-channels within the channels mode of content 172(e). Some or all of the modes of content 172 may access, retrieve and/or store information on the Internet 174.

According to one embodiment, the different modes of content 172 may be displayed 30 as a series of bars across the display screen 110, as illustrated in FIG. 12. The following

discussion of various features, including hardware navigation through the map user interface may refer primarily to the display configuration illustrated in FIG. 12. However, it is to be appreciated that the invention is not so limited, and the modes of content may be displayed in other configurations, including, for example, a “desktop” and icon configuration, a  
5 “dashboard” type display, as illustrated in FIG. 13, or another configuration, as would be recognized by those skilled in the art. Similarly, navigation is discussed below primarily with reference to the scroll wheel 132 and navigation buttons 166, 168; however, it is to be appreciation that navigation may also be accomplished using any of the conventional tools discussed above or known to those skilled in the art.

10 As discussed above, according to one embodiment, the scroll wheel 132 and, optionally, the navigation buttons 166, 168 may be used to navigate the user interface. Referring again to FIG. 12, scrolling the scroll wheel may sequentially highlight different ones of the modes of content 172. In one example, the highlighting may be achieved by changing the color of the selected mode, and/or by providing a visual indicator, such as a  
15 colored bar 176. A highlighted mode 172 may be selected by pressing the scroll wheel, thereby bringing up a new “page” or screen on the user interface corresponding to the selected mode. Once within a selected mode of content 172, the scroll wheel may similarly be used to select particular functions, features or applications within that mode. In one embodiment, the default action for the scroll wheel 132 may vary depending on whether the portable computer  
20 100 is in the laptop mode or the easel mode. For example, in easel mode, the default action for the scroll wheel may be channel selection within the channels mode 172(e).

As discussed above, in one embodiment volume control for the speakers 128 may be provided by the volume control button 204 and mute button 206. Alternatively, according to another embodiment, volume control may be provided using the scroll wheel 132. Thus, as a  
25 user scrolls the scroll wheel 132, as illustrated in FIG. 14 by arrow 161, a volume indicator may appear on the display screen 110. In one example, the volume indicator may comprise a transparent, or partially transparent, box 162 containing volume level indicators that may appear directly below the scroll wheel 132 on the display screen 110. In this example, as the user scrolls the scroll wheel 132, different volume levels in the volume box 162 may be  
30 successively highlighted, to indicate to the user that the volume is increasing or decreasing.



In one embodiment, the scroll wheel 132 may be depressible as well as scrollable. Thus, pressing the scroll wheel 132, as illustrated in FIG. 15, may allow further control, such as, for example, selecting a channel onto which the user has scrolled, or “play” and “pause” of audio or video being played through the portable computer 100.

5           As discussed above, according to one embodiment, one or more navigation buttons may be used in conjunction with the scroll wheel. In particular, in one embodiment, the navigation button(s) may be used to change the action of the scroll wheel. As discussed above, in one example, the default action of the scroll wheel is volume control. This action may be changed by pressing the navigation button 166, as illustrated in FIG. 16, for example, 10 from volume control to menu navigation in the user interface, and vice versa. According to one embodiment, the effect of pressing the navigation button 166 may vary depending on active the mode of content of the portable computer 100. For example, if a user is in the media mode using a photo viewing application, pressing the navigation button 166 may change the action of the scroll wheel 132 from mode navigation to slideshow controls for the 15 photos. When the navigation button 166 is pressed, an control indicator box (similar to the volume indicator box 162 discussed above with reference to FIG. 14) may appear containing different actions for the photo slideshow, such as “play,” “next,” “back,” “skip,” “full screen view,” etc., and scrolling the scroll wheel 132 may allow a user to select one of these actions. Pressing the navigation button 166 again may return the scroll wheel action to menu 20 navigation, to allow the user to, for example, move to a different feature or application within the active mode, or to select a different mode.

As can be seen in FIG. 16, the navigation button 166 may be easily accessed when the portable computer 100 is in the easel mode, providing a convenient navigation tool for this configuration. A similar navigation button 168 may be provided on the keyboard 106, as 25 illustrated in FIG. 17. In one example, the functionality of the two navigation buttons 166, 168 may be the same, with the different locations providing easy, comfortable access in the different configuration modes (i.e., laptop or easel) of the portable computer 100. Thus, a user may use either navigation button 166 or navigation button 168, depending on personal preference. In another example, the two navigation buttons may have different functionality. 30 For example, the navigation button 166 may be used to alter the action of the scroll wheel

132, as discussed above, while the navigation button 168 is used to navigate “up” or “down” a level within the map user interface. For example, pressing the navigation button 168 while within a given mode of content may allow the user to “back up” to the home screen; or pressing the navigation button 168 while within a selected channel (in the channel mode of the content 172e) may allow the user to “back-up” to the channel mode main page.

It is to be appreciated that numerous variations on the functionality of the navigation buttons 166, 168 is possible, as would be recognized by those skilled in the art, and the above examples are given for illustration only and are not intended to be limiting. In addition, any functions described with reference to one navigation button (166 or 168) may be instead (or additionally) implemented with the other navigation button. In one example, the function of the navigation buttons 166, 168 may vary depending on whether the portable computer 100 is configured into the laptop mode or the easel mode. For example, only the navigation button 166 may be active in the easel mode, and only the navigation button 168 may be active in the laptop mode. Alternatively, both navigation buttons 166, 168 may be usable in either the laptop mode or the easel mode, but their functionality may vary. For example, when the portable computer 100 is in the easel mode, the default action for the navigation button 166 may be channel selection whereas the default action for the navigation button 168 is to access the “home” screen. Furthermore, the portable computer 100 is not limited to the use of two navigation buttons and may instead comprise only a single navigation button or more than two navigation buttons, any of which may be disposed in the locations described above (e.g., on the rounded portion 120 of the base 104 or on the keyboard 106), or in other locations on the portable computer.

As discussed above, according to one embodiment, the function or display content and/or display orientation of the portable computer may vary when the portable computer is configured from the laptop mode into the easel mode, or vice versa. For example, as discussed above, when the portable computer 100 is configured into the easel mode, the visual display on the display screen 110 is automatically rotated 180 degrees such that the information appears “right-way-up,” even through the display screen is upside-down compared to when the portable computer is in the laptop mode. In another example, for at least some activities within at least some modes of content (e.g., viewing a photograph or

video), when the portable computer 100 is configured into the easel mode, the display may automatically adjust to “full screen view” (i.e., the displayed image or video is displayed on the full screen size, rather than in a window) to allow for comfortable viewing.

5 In addition, as discussed above, the ability to configure the portable computer 100 into either the laptop mode or the easel mode provides enhanced functionality. For example, when the portable computer 100 is not being actively used, the user may configure the portable computer into the easel mode, and program the portable computer to act as a digital photo frame, displaying one or more photos of the user’s choice. In the easel mode, the portable computer 100 may occupy a smaller footprint on a surface than in the laptop or closed modes  
10 because the base 104 and display component 102 are upright, as illustrated in FIGS. 4 and 5. In addition, because the portable computer can act as a passive information and/or entertainment device, such as a photo frame or clock, as discussed above, the portable computer may provide a useful function even when not being actively used by the user, and may do so (in the easel mode) without taking up much surface area.

15 According to another embodiment, the portable computer 100 may further comprise a wireless signal indicator 178, as illustrated in FIG. 18. The wireless signal indicator 178 may indicate the availability and/or strength of a wireless signal to which the portable computer 100 is connected, or is attempting to connect to. In one example, the color of the wireless signal indicator 178 may provide information regarding the strength of a detected wireless  
20 signal. For example, green may indicate a “good” signal; yellow may indicate a “poor” or “low” signal; and red may indicate that there is no signal available. In one example, the wireless signal indicator 178 may be ON or active whenever the portable computer 100 is powered up. Alternatively, the wireless signal indicator 178 may be activated by a user action, for example, by pressing the navigation button 166 or another button or key provided  
25 on the portable computer 100, and may remain active for a predetermined time period (e.g., for 2 seconds, 10 seconds, one minute, etc.). As discussed above, the functionality of the navigation button 166 may vary depending on the configuration mode of the portable computer 100. In one example, when the portable computer 100 is in the closed position, but still powered up, the default action for the navigation button 166 may be to activate the  
30 wireless signal indicator 178.

According to one embodiment, the portable computer 100 may be provided with power cord and adapter to allow the portable computer to be plugged into a wall supply. Referring to FIG. 19, there is illustrated a view of a portion of the portable computer 100, showing a power jack 180 to which the power adaptor can be connected. As discussed above, 5 the portable computer 100 may also include a port 164 to which peripheral devices, such as mouse, external keyboard, portable flash drive, memory stick, etc. may be connected. In one example, the port 164 is a USB port; however, it is to be appreciated that the port may accommodate protocols other than USB. In addition, although only one port 164 is illustrated in FIG 19, the portable computer 100 may comprise multiple ports that may accommodate 10 multiple protocols. In one example, the portable computer 100 may also comprise a headphone jack 182. It is to be appreciated that the location of any or all of the power jack 180, port(s) 164, and headphone jack 182 are not limited to the example shown in FIG. 19, but may be anywhere convenient or desirable on the portable computer 100.

Referring to FIG. 20, there is illustrated a top down view one example of a power 15 adaptor 184 that may be used with the portable computer 100 and connected via the power jack 180. As known to those skilled in the art, the power adaptor 184 comprises a transformer (not shown) that converts the wall power to a level acceptable for use by the portable computer 100. In one embodiment, the power adaptor 184 comprises a substantially round body 186 that houses the transformer and other necessary components. A connector 188 may 20 allow the power adaptor 184 to be connected to a wall outlet or extension cord. In one example, the connector 188 may include foldable prongs 190 that can be folded against the connector 188 for storage, and folded out for connection, as illustrated in FIG. 21. A cord 192 may be slidably accommodated within the body 186, such that the cord may be stored within the body and flexibly extended (up to its maximum length) by a user.

25 According to one embodiment, the cord 192 may be wound around a cord spool 194 located within, or partially within, the body 186 of the power adaptor 184. As illustrated in FIG. 21, the cord spool 194 may be configured to slide out from the body 186 of the power adaptor 184, such that the cord 192 can be wound around the cord spool 194, as illustrated in FIGS. 22A and 22B.

According to another embodiment, the portable computer 100 may be configured to connect to a docking station 196, as illustrated in FIG. 23. In one embodiment, a connector 198 on the docking station 196 may be configured to slidably connect to connectors 200 on the portable computer 100, as illustrated in FIG. 23. In one example, the connectors 200 may include power and audio connectors, such that the portable computer 100 may receive power from the docking station and receive and/or provide audio signals from/to the docking station, respectively. For example, the docking station may be coupled to external speakers, and the portable computer may provide audio signals to the docking station to be played through the external speakers. In another example, the docking station 196 may also be coupled to an audio device (not shown), such as an MP3 player, which may provide audio signals and data to the portable computer 100, for example, to update an audio library on the portable computer. It is to be appreciated that many other variations of communication between the portable computer 100 and devices coupled to the docking station 196 are possible, as would be recognized by those skilled in the art, and such variations are intended to be within the scope of this disclosure. Furthermore, numerous variations on the connector(s) 198, 200 that couple the docking station 196 to the portable computer 100 are also possible, as would be recognized by those skilled in the art. For example, the portable computer 100 may include a multi-pin connector 202 located on the base 104, as illustrated in FIG. 24. Such and other variations are intended to be within the scope of this disclosure and the above-mentioned examples are provided for illustration only and are not intended to be limiting.

In addition, it is to be appreciated that although the above discussion refers primarily to the portable computer 100 being in either the laptop mode or easel mode, other modes or configurations are also possible. For example, as discussed above, because the portable computer 100 can be configured from the closed position, through the laptop mode into the easel mode by rotating the display component 102, a number of configurations are possible in between “true” laptop mode and “true” easel mode. In another example, the portable computer 100 may be configured into a “frame” mode, as illustrated in FIG. 26, in which the portable computer is placed on a surface 212 with the keyboard 106 “face down” on the surface 212 and the display 110 facing upward. In the frame mode, the display component 102 may be at a similar orientation, and angle 134, with respect to the base component 104 as

in the easel mode. However, rather than the base component 104 and display component 102 being oriented vertically with respect to the surface 212, as in the easel mode (in which the portable computer forms an inverted “V” as discussed above), in the frame mode, the base component 104 may lie flat on the surface 212, as shown in FIG. 26. In one example,  
5 software and/or hardware protection may be provided for the keyboard to prevent keys from being pressed (or to prevent the portable computer from responding to pressed keys) when the portable computer is in the frame mode.

Similarly, referring to FIG. 27, there is illustrated another configuration of the portable computer 100, referring to as the “flat” mode. In the flat mode, the display component 102  
10 may be rotated (or opened) to approximately 180 degrees with respect to the base component 104, such that the base component and display component lay flat on a surface, with the keyboard 106 and display screen 110 exposed, as shown in FIG. 27. Unlike the easel and frame modes, in which the keyboard may be concealed and not easily accessible, in the flat mode, the keyboard is accessible and usable. In addition, as discussed above, the visual  
15 display on the display screen 110 may be automatically rotated to accommodate comfortable viewing of information by persons located in different positions relative to the base component 104 or display component 102. The visual display on the display screen 110 may also be manually adjusted by a user using, for example, the keyboard 106, touch pad 108 or mouse (not shown), scroll wheel 132 or navigation buttons (not shown). For example, if a  
20 user (located at position A) wishes to display information for a person located opposite the user (at position B), the visual display may be rotated (automatically or manually) 180 degrees such that the information appears “right-way-up,” to the person at location B, even through the display screen 110 is upside-down for that person. Similarly, in another example, the visual display may be rotated (automatically or manually) 90 degrees such that the  
25 information appears “right-way-up,” for a person at location C. In one example, a user can “toggle” the visual display among various orientations. For example, a user at location A may have the visual display facing themselves while using the keyboard 106 or other controls to change or access information on the display, then toggle the display orientation 180 or 90 degrees to display the information for persons at locations B or C.

In summary, various aspects and embodiments provide a portable computer that is configurable between different operating modes, including a laptop mode and an easel mode, and that is capable of different display formats and functionality in the different modes. The ability to view and operate the portable computer in the different laptop and easel modes, and to incorporate features and functions such as an alarm clock, digital photograph frame, voice-over-IP, etc, may provide enhanced flexibility and usefulness. In addition, the portable computer may include a graphical user interface that may work seamlessly with the computer hardware to provide an enjoyable, holistic user experience.

Having thus described several aspects of at least one embodiment, it is to be appreciated various alterations, modifications, and improvements will readily occur to those skilled in the art. For example functionality or features that have been described herein in connection with hardware may instead be implemented in software, or vice versa. For example, the wireless signal indicator discussed above may instead (or in addition) be provided as a software application. Such alterations, modifications, and improvements are intended to be part of this disclosure and are intended to be within the scope of the invention. Accordingly, the foregoing description and drawings are by way of example only.

What is claimed is:

## CLAIMS

1. A portable computer configurable between a plurality of display modes including a closed mode, a laptop mode and an easel mode, the portable computer comprising:
  - 5 a display component including a display screen;
  - a base;
  - a hinge assembly at least partially housed within the base and configured to pivotably couple the display component to the base;
  - wherein the display component is rotatable about a longitudinal axis running along an  
10 interface between the display component and the base;
  - wherein, in the closed mode, the display screen is disposed substantially against the base;
  - wherein rotating the display component about the longitudinal axis up to approximately 180 degrees from the closed mode configures the portable computer into the  
15 laptop mode; and
  - wherein rotating the display component about the longitudinal axis beyond approximately 180 degrees from the closed mode configures the portable computer into the easel mode.
- 20 2. The portable computer of claim 1, wherein the display component is rotatable about the longitudinal axis up to approximately 320 degrees from the closed mode.
3. The portable computer of claim 1, further comprising a display orientation module that displays content on the display screen in one of a plurality of orientations relative to the  
25 longitudinal axis.
4. The portable computer of claim 3, further comprising a mode sensor which detects a current display mode of the portable computer; and  
wherein the display orientation module displays content on the display screen in an  
30 orientation dependent on the current display mode detected by the mode sensor.



5. The portable computer of claim 3, wherein the display orientation module is configured to display the content in a first orientation relative to the longitudinal axis when the portable computer is configured into the laptop mode and in a second orientation relative to the longitudinal axis when the portable computer is configured into the easel mode.
6. The portable computer of claim 5, wherein the second orientation is 180 degrees relative to the first orientation.
7. The portable computer of claim 3, wherein the plurality of display modes further comprises a flat mode in which the display component is disposed at an angle of approximately 180 degrees, measured about the longitudinal axis, relative to the base.
8. The portable computer of claim 7, wherein the plurality of orientations comprises a first orientation relative to the longitudinal axis, a second orientation relative to the longitudinal axis, and a third orientation relative to the longitudinal axis; and wherein, in the flat mode, the orientation of the content displayed on the display screen is configurable among the first, second and third orientations responsive to a user input.
9. The portable computer of claim 8, wherein the second orientation is 90 degrees relative to the first orientation; and wherein the third orientation is 180 degrees relative to the first orientation.
10. The portable computer of claim 1, wherein the longitudinal axis comprises multiple parallel axes; and wherein the hinge assembly is configured to permit rotation of the display component about any of the multiple parallel axes to configure the portable computer between the plurality of display modes.

30

11. The portable computer of claim 1, further comprising:  
a foot disposed along at least a portion of the base and configured to support the portable computer when in the easel mode.
- 5 12. A portable computer comprising:  
a base;  
a display component rotatably coupled to the base; and  
means for rotating the display component in a single direction relative to the base to configure the portable computer between a laptop mode and an easel mode.
- 10 13. A portable computer configurable between a laptop mode and an easel mode, the portable computer comprising:  
a display component;  
a base; and  
15 a hinge assembly configured to rotatably couple the display component to the base;  
wherein the hinge assembly is configured to permit rotation of the display component about a single axis to configure the portable computer between the laptop mode and the easel mode.
- 20 14. The portable computer of claim 13, wherein the single axis is a longitudinal axis running along an interface between the display component and the base.
15. The portable computer of claim 14, wherein the display component comprises a display screen configured to display content and a display orientation module configured to  
25 control an orientation of the content displayed on the display screen;  
wherein the orientation of the content displayed on the display screen is configurable among a plurality of orientations relative to the longitudinal axis.

16. The portable computer of claim 15, wherein the plurality of orientations comprises a first orientation relative to the longitudinal axis and a second orientation relative to the longitudinal axis; and  
wherein when display orientation module is configured to automatically display the content in the first orientation when the portable computer is configured into the laptop mode and in the second orientation when the portable computer is configured into the easel mode.
17. The portable computer of claim 16, wherein the second orientation is 90 degrees relative to the first orientation; and  
wherein the third orientation is 180 degrees relative to the first orientation.
18. The portable computer of claim 15, further comprising a mode sensor configured to provide information representative of a degree of rotation of the display component relative to the base; and  
wherein the display orientation module is configured to automatically adjust the orientation of the content displayed on the display screen responsive to the information from the mode sensor.
19. A method of automatically orienting content displayed on a portable computer, the method comprising:  
rotating a display component of the portable computer about a longitudinal axis running along an interface between the display component and a base of the portable computer;  
detecting a degree of rotation of the display component relative to the base;  
providing a signal representative of the degree of rotation of the display component;  
and  
automatically configuring an orientation, relative to the longitudinal axis, of the content displayed on the portable computer responsive to the signal.

20. The method of claim 19, wherein automatically configuring the orientation of the content includes:

displaying the content in a first orientation relative to the longitudinal axis responsive to the signal indicating that the degree of rotation of the display component is less than  
5 approximately 180 degrees relative to the base; and

displaying the content in a second orientation relative to the longitudinal axis responsive to the signal indicating that the degree of rotation of the display component is greater than approximately 180 degrees relative to the base, the second orientation being at  
10 180 degrees relative to the first orientation.

21. A portable computer comprising:

a base unit;  
a display unit including a display screen configured to display content;  
an orientation sensor which detects an orientation of the display unit relative to the  
15 base unit; and

a display orientation module which orients the content displayed on the display screen responsive to the orientation detected by the orientation sensor.

## ABSTRACT

A portable computer that is configurable between a plurality of display modes including a laptop mode (in which the portable computer has a conventional laptop appearance) and an easel mode in which the base of the computer and its display component stand vertically forming an inverted “V.” The portable computer includes a hinge assembly that couples the display component to the base of the computer, and allows the display component to be rotated about an axis along an interface between the display component and the base to configure the portable computer between a closed position, the laptop mode and the easel mode. The portable computer further comprises a scroll wheel and optional navigation buttons that permit a user to control or manipulate various aspects of operation of the portable computer (such as volume or display brightness) and/or content displayed the computer.

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<b>Application Data Sheet 37 CFR 1.76</b>		Attorney Docket Number	A2029-700110
		Application Number	
Title of Invention	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS		
The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.			

### Secrecy Order 37 CFR 5.2

Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

### Applicant Information:

<b>Applicant 1</b>					<a href="#">Remove</a>
<b>Applicant Authority</b> <input checked="" type="radio"/> Inventor		<input type="radio"/> Legal Representative under 35 U.S.C. 117		<input type="radio"/> Party of Interest under 35 U.S.C. 118	
<b>Prefix</b>	<b>Given Name</b>	<b>Middle Name</b>	<b>Family Name</b>	<b>Suffix</b>	
	Yves		Behar		
<b>Residence Information (Select One)</b> <input checked="" type="radio"/> US Residency <input type="radio"/> Non US Residency <input type="radio"/> Active US Military Service					
<b>City</b>	Oakland	<b>State/Province</b>	CA	<b>Country of Residence i</b>	US
<b>Citizenship under 37 CFR 1.41(b) i</b>		CH			
<b>Mailing Address of Applicant:</b>					
<b>Address 1</b>		5741 Scarborough Drive			
<b>Address 2</b>					
<b>City</b>	Oakland	<b>State/Province</b>	CA		
<b>Postal Code</b>	94611	<b>Countryi</b>	US		
<b>Applicant 2</b>					<a href="#">Remove</a>
<b>Applicant Authority</b> <input checked="" type="radio"/> Inventor		<input type="radio"/> Legal Representative under 35 U.S.C. 117		<input type="radio"/> Party of Interest under 35 U.S.C. 118	
<b>Prefix</b>	<b>Given Name</b>	<b>Middle Name</b>	<b>Family Name</b>	<b>Suffix</b>	
	Joshua		Morenstein		
<b>Residence Information (Select One)</b> <input checked="" type="radio"/> US Residency <input type="radio"/> Non US Residency <input type="radio"/> Active US Military Service					
<b>City</b>	San Francisco	<b>State/Province</b>	CA	<b>Country of Residence i</b>	US
<b>Citizenship under 37 CFR 1.41(b) i</b>		US			
<b>Mailing Address of Applicant:</b>					
<b>Address 1</b>		124 Downey Street			
<b>Address 2</b>					
<b>City</b>	San Francisco	<b>State/Province</b>	CA		
<b>Postal Code</b>	94117	<b>Countryi</b>	US		
<b>Applicant 3</b>					<a href="#">Remove</a>
<b>Applicant Authority</b> <input checked="" type="radio"/> Inventor		<input type="radio"/> Legal Representative under 35 U.S.C. 117		<input type="radio"/> Party of Interest under 35 U.S.C. 118	
<b>Prefix</b>	<b>Given Name</b>	<b>Middle Name</b>	<b>Family Name</b>	<b>Suffix</b>	
	Christopher		Hibmacronan		
<b>Residence Information (Select One)</b> <input checked="" type="radio"/> US Residency <input type="radio"/> Non US Residency <input type="radio"/> Active US Military Service					
<b>City</b>	Oakland	<b>State/Province</b>	CA	<b>Country of Residence i</b>	US

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<b>Application Data Sheet 37 CFR 1.76</b>		Attorney Docket Number	A2029-700110	
		Application Number		
Title of Invention	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS			
<b>Citizenship under 37 CFR 1.41(b) i</b>	US			
<b>Mailing Address of Applicant:</b>				
<b>Address 1</b>	2429 Damuth Street			
<b>Address 2</b>				
<b>City</b>	Oakland	<b>State/Province</b>	CA	
<b>Postal Code</b>	94602	<b>Country<sup>i</sup></b>	US	
<b>Applicant 4</b>				<input type="button" value="Remove"/>
<b>Applicant Authority</b>	<input checked="" type="radio"/> Inventor		<input type="radio"/> Legal Representative under 35 U.S.C. 117	
		<input type="radio"/> Party of Interest under 35 U.S.C. 118		
<b>Prefix</b>	<b>Given Name</b>	<b>Middle Name</b>	<b>Family Name</b>	<b>Suffix</b>
	Naoya		Edahiro	
<b>Residence Information (Select One)</b> <input checked="" type="radio"/> US Residency <input type="radio"/> Non US Residency <input type="radio"/> Active US Military Service				
<b>City</b>	San Francisco	<b>State/Province</b>	CA	<b>Country of Residence<sup>i</sup></b> US
<b>Citizenship under 37 CFR 1.41(b) i</b>	JP			
<b>Mailing Address of Applicant:</b>				
<b>Address 1</b>	375 Bartlett Street			
<b>Address 2</b>				
<b>City</b>	San Francisco	<b>State/Province</b>	CA	
<b>Postal Code</b>	94110	<b>Country<sup>i</sup></b>	US	
<b>Applicant 5</b>				<input type="button" value="Remove"/>
<b>Applicant Authority</b>	<input checked="" type="radio"/> Inventor		<input type="radio"/> Legal Representative under 35 U.S.C. 117	
		<input type="radio"/> Party of Interest under 35 U.S.C. 118		
<b>Prefix</b>	<b>Given Name</b>	<b>Middle Name</b>	<b>Family Name</b>	<b>Suffix</b>
	Matthew	David	Day	
<b>Residence Information (Select One)</b> <input checked="" type="radio"/> US Residency <input type="radio"/> Non US Residency <input type="radio"/> Active US Military Service				
<b>City</b>	San Francisco	<b>State/Province</b>	CA	<b>Country of Residence<sup>i</sup></b> US
<b>Citizenship under 37 CFR 1.41(b) i</b>	US			
<b>Mailing Address of Applicant:</b>				
<b>Address 1</b>	425 2nd Street #301			
<b>Address 2</b>				
<b>City</b>	San Francisco	<b>State/Province</b>	CA	
<b>Postal Code</b>	94107	<b>Country<sup>i</sup></b>	US	
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the <b>Add</b> button.				<input type="button" value="Add"/>

**Correspondence Information:**

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).	
<input type="checkbox"/> An Address is being provided for the correspondence Information of this application.	
<b>Customer Number</b>	37462

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<b>Application Data Sheet 37 CFR 1.76</b>		Attorney Docket Number	A2029-700110
		Application Number	
Title of Invention	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS		
Email Address		<input type="button" value="Add Email"/>	<input type="button" value="Remove Email"/>

**Application Information:**

Title of the Invention	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS		
Attorney Docket Number	A2029-700110	Small Entity Status Claimed	<input type="checkbox"/>
Application Type	Nonprovisional		
Subject Matter	Utility		
Suggested Class (if any)		Sub Class (if any)	
Suggested Technology Center (if any)			
Total Number of Drawing Sheets (if any)	25	Suggested Figure for Publication (if any)	4

**Publication Information:**

<input type="checkbox"/>	Request Early Publication (Fee required at time of Request 37 CFR 1.219)
<input type="checkbox"/>	<b>Request Not to Publish.</b> I hereby request that the attached application not be published under 35 U.S. C. 122(b) and certify that the invention disclosed in the attached application <b>has not and will not</b> be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

**Representative Information:**

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Enter either Customer Number or complete the Representative Name section below. If both sections are completed the Customer Number will be used for the Representative Information during processing.			
Please Select One:	<input checked="" type="radio"/> Customer Number	<input type="radio"/> US Patent Practitioner	<input type="radio"/> Limited Recognition (37 CFR 11.9)
Customer Number	37462		

**Domestic Benefit/National Stage Information:**

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78(a)(2) or CFR 1.78(a)(4), and need not otherwise be made part of the specification.			
Prior Application Status	Pending	<input type="button" value="Remove"/>	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
	non provisional of	61041365	2008-04-01
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the <b>Add</b> button.			<input type="button" value="Add"/>

**Foreign Priority Information:**



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<b>Application Data Sheet 37 CFR 1.76</b>		Attorney Docket Number	A2029-700110
		Application Number	
Title of Invention	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS		

This section allows for the applicant to claim benefit of foreign priority and to identify any prior foreign application for which priority is not claimed. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(a).

<input type="button" value="Remove"/>			
Application Number	Country <sup>i</sup>	Parent Filing Date (YYYY-MM-DD)	Priority Claimed
			<input type="radio"/> Yes <input checked="" type="radio"/> No
Additional Foreign Priority Data may be generated within this form by selecting the <b>Add</b> button.			<input type="button" value="Add"/>

**Assignee Information:**

Providing this information in the application data sheet does not substitute for compliance with any requirement of part 3 of Title 37 of the CFR to have an assignment recorded in the Office.

<b>Assignee 1</b>					<input type="button" value="Remove"/>
If the Assignee is an Organization check here. <input type="checkbox"/>					
Prefix	Given Name	Middle Name	Family Name	Suffix	
<b>Mailing Address Information:</b>					
Address 1					
Address 2					
City		State/Province			
Country <sup>i</sup>		Postal Code			
Phone Number		Fax Number			
Email Address					
Additional Assignee Data may be generated within this form by selecting the <b>Add</b> button.					<input type="button" value="Add"/>

**Signature:**

A signature of the applicant or representative is required in accordance with 37 CFR 1.33 and 10.18. Please see 37 CFR 1.4(d) for the form of the signature.

<b>Signature</b>	/Sarah M. Gates/		Date (YYYY-MM-DD)	2008-07-10
First Name	Sarah	Last Name	Gates	Registration Number
				60661

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	3597094
<b>Application Number:</b>	12170939
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	1986
<b>Title of Invention:</b>	PORTABLE COMPUTER WITH MULTIPLE DISPLAY CONFIGURATIONS
<b>First Named Inventor/Applicant Name:</b>	Yves Behar
<b>Customer Number:</b>	37462
<b>Filer:</b>	Sarah May Gates
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	A2029-700110
<b>Receipt Date:</b>	10-JUL-2008
<b>Filing Date:</b>	
<b>Time Stamp:</b>	16:28:09
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	no
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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1		898553_A2029_700110_AP.pdf	112943 b048db02626d9d8b4d059c10d0b59955a4f26676a	yes	31

Multipart Description/PDF files in .zip description					
Document Description			Start	End	
Specification			1	25	
Claims			26	30	
Abstract			31	31	
<b>Warnings:</b>					
<b>Information:</b>					
2	Drawings-other than black and white line drawings	A2029_700110_Figs.pdf	1012181 <small>7ce1498c7ee46dbee130185c280b0f090a608695</small>	no	25
<b>Warnings:</b>					
<b>Information:</b>					
3	Application Data Sheet	A2029_700110_ADS.pdf	965504 <small>f21b1a1aa14f0ed0a3dfc697b1a8746980a2173e</small>	no	5
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			2090628		
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					

## SCORE Placeholder Sheet for IFW Content

Application Number: 12170939

Document Date: 7/10/2008

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Form Revision Date: February 8, 2006

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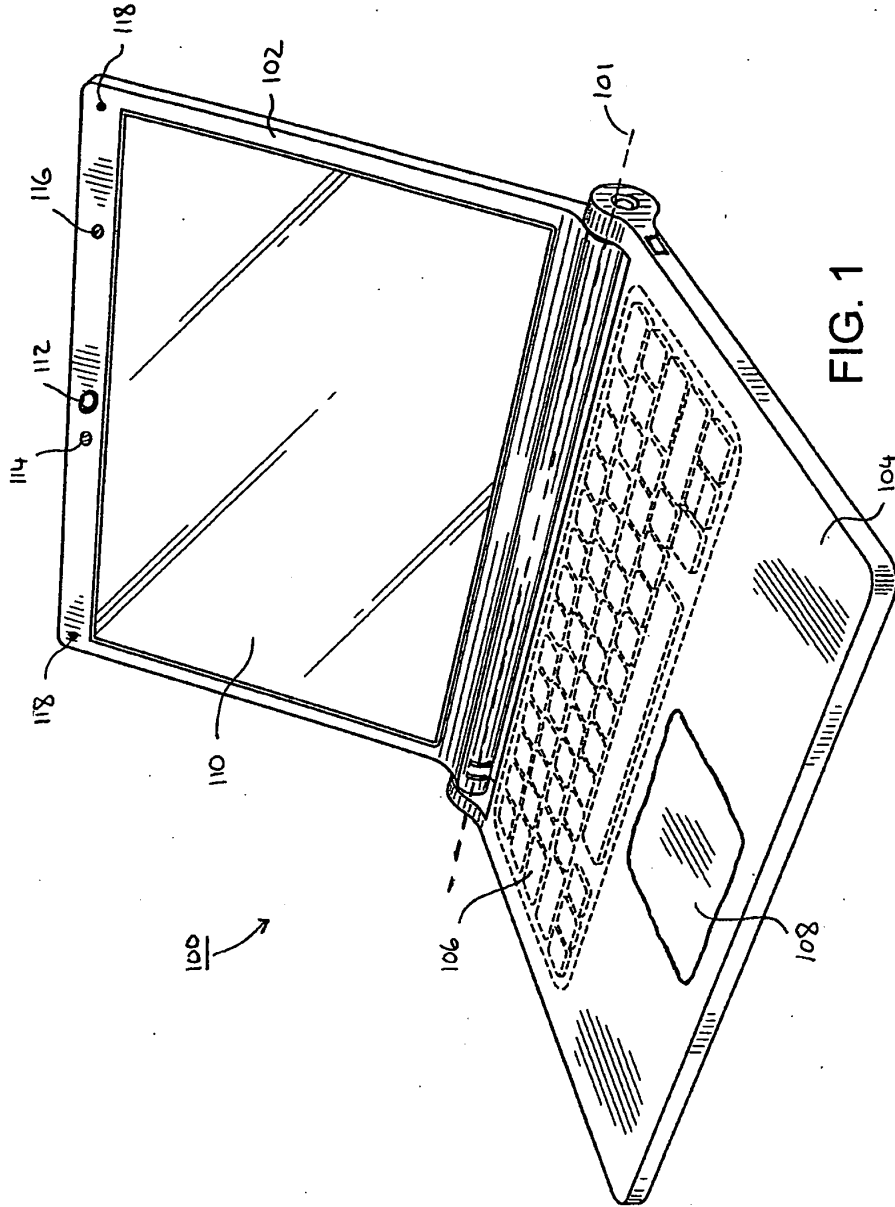


FIG. 1

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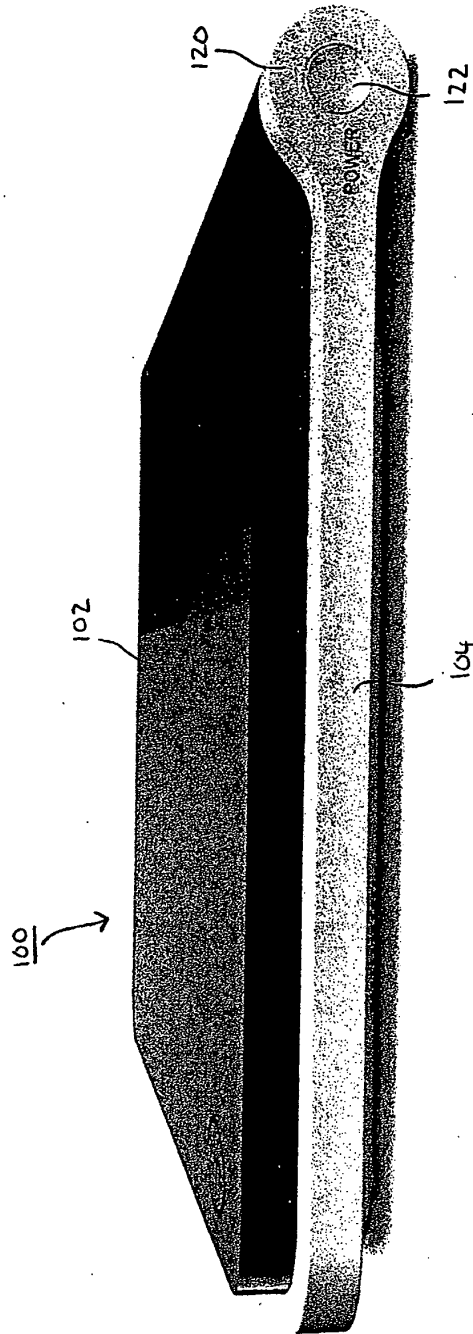


FIG. 2

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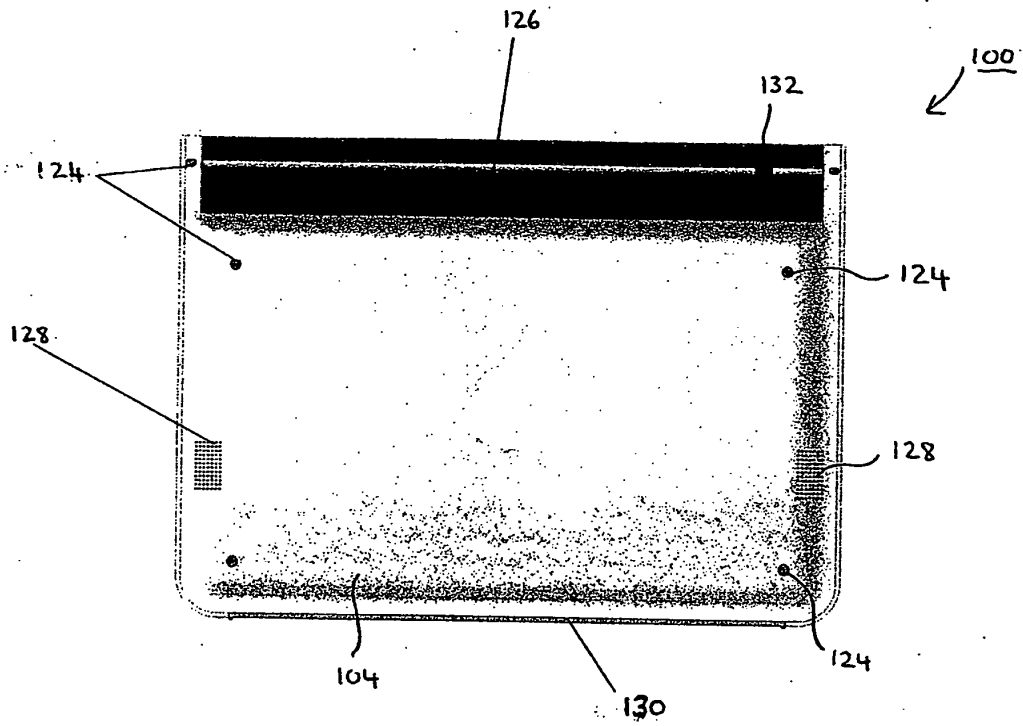


FIG. 3



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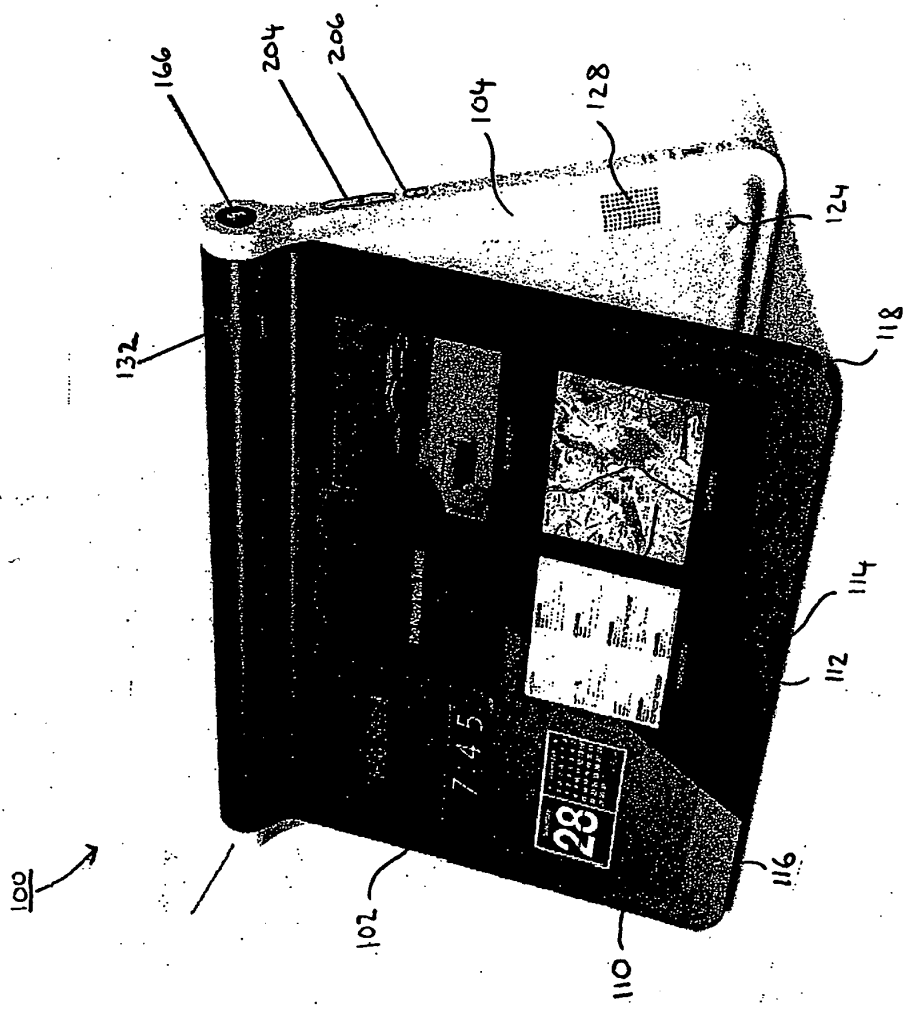


FIG. 4

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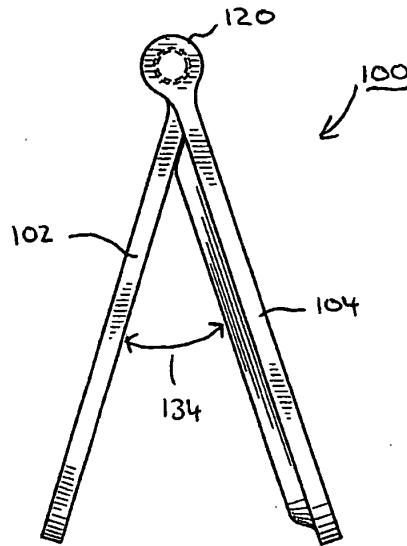


FIG. 5

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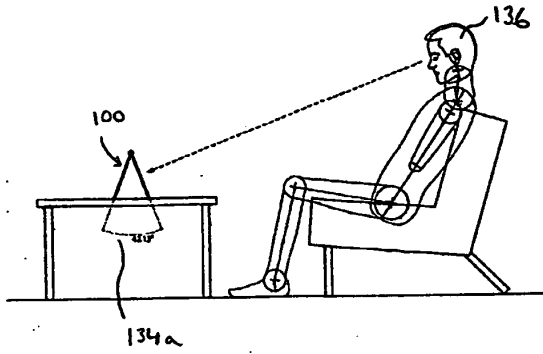


FIG. 6A

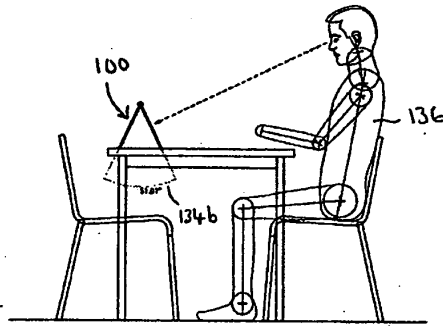


FIG. 6B

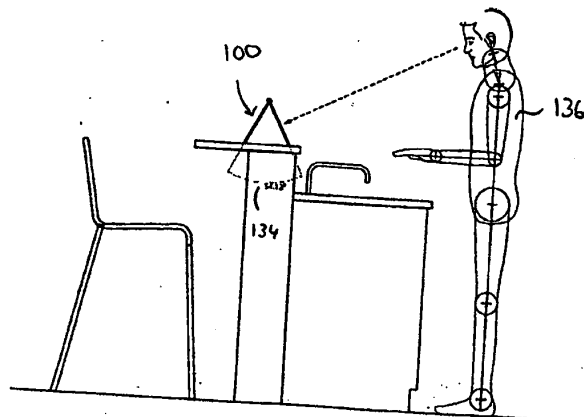


FIG. 6C

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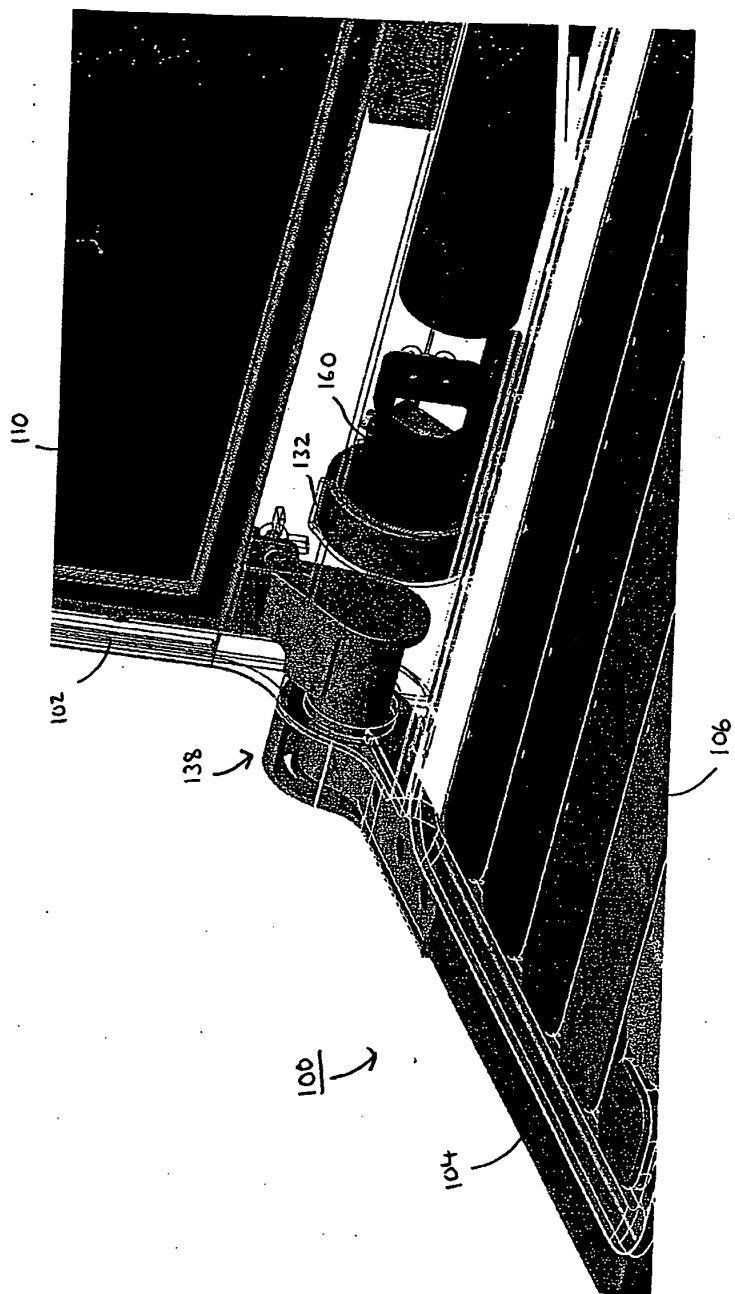


FIG. 7A

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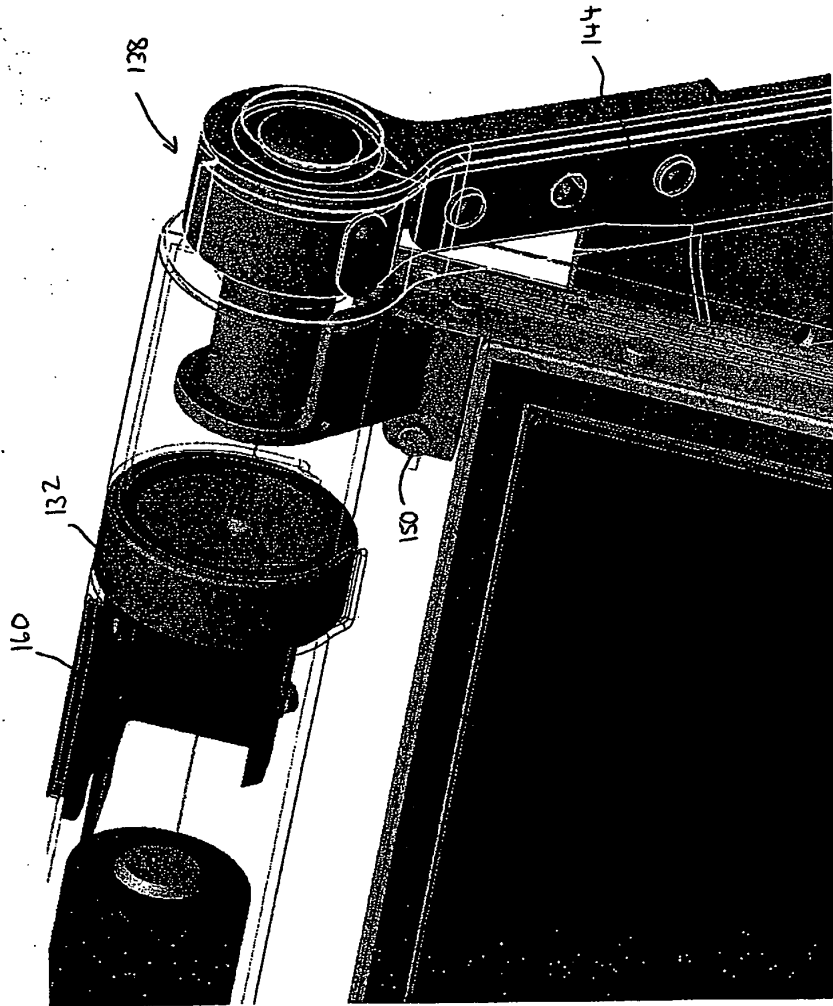


FIG. 7B

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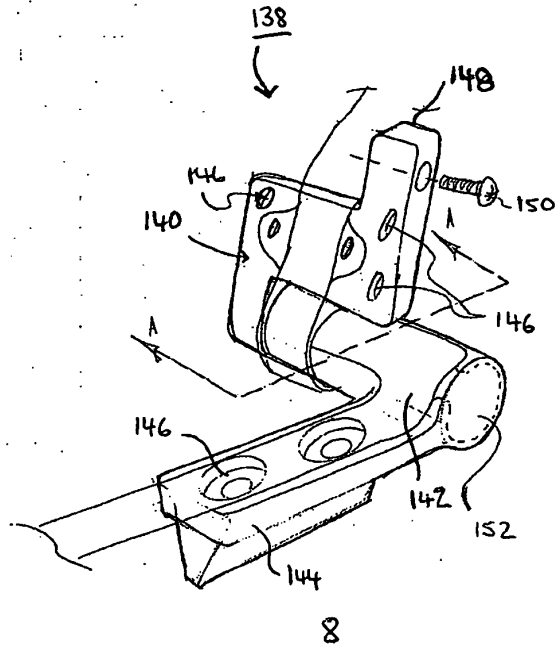


FIG. 8

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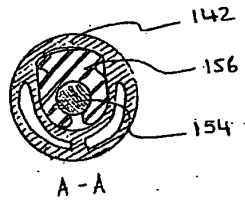


FIG 9

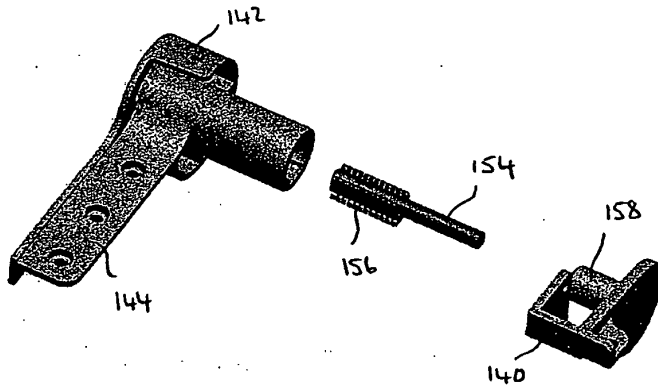


FIG. 10

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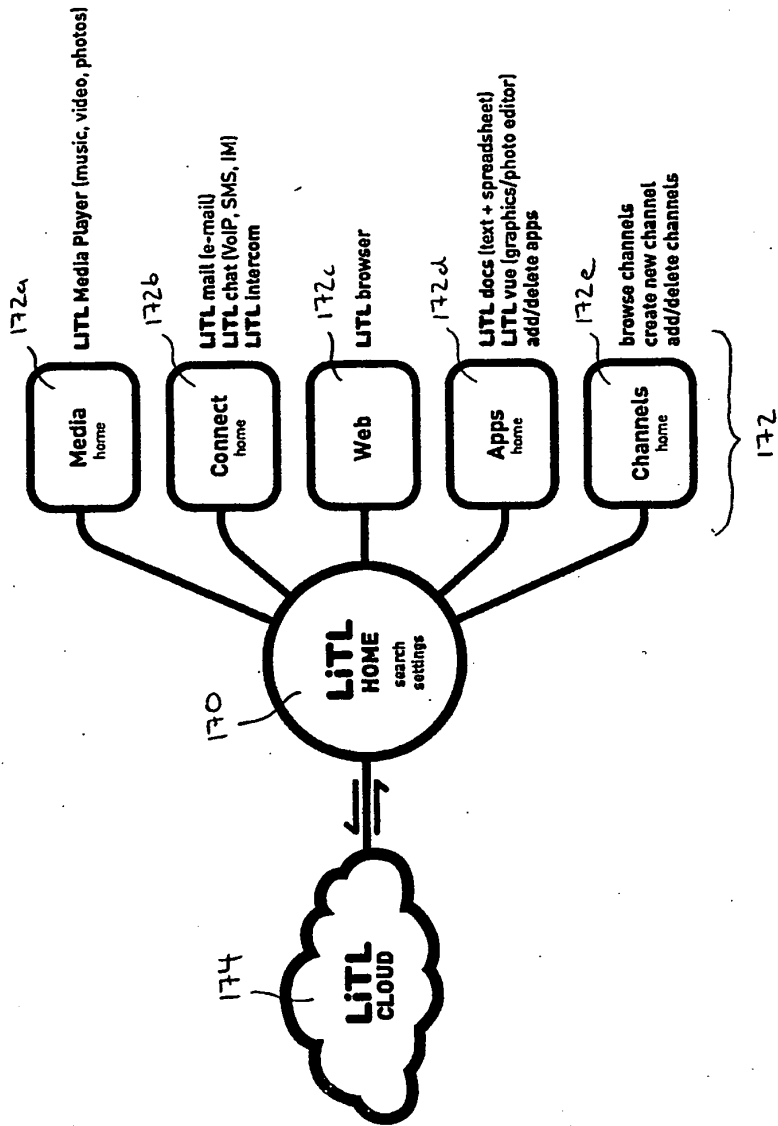


FIG. 11



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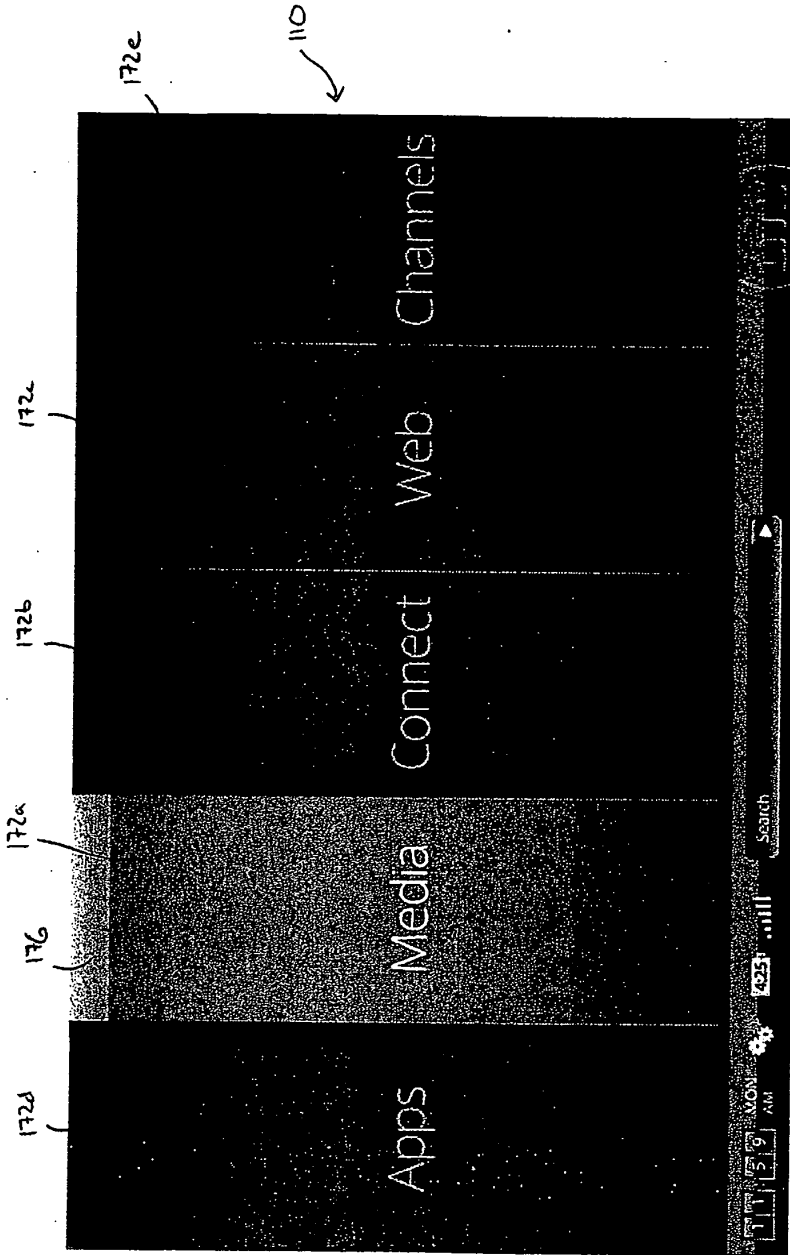


FIG. 12

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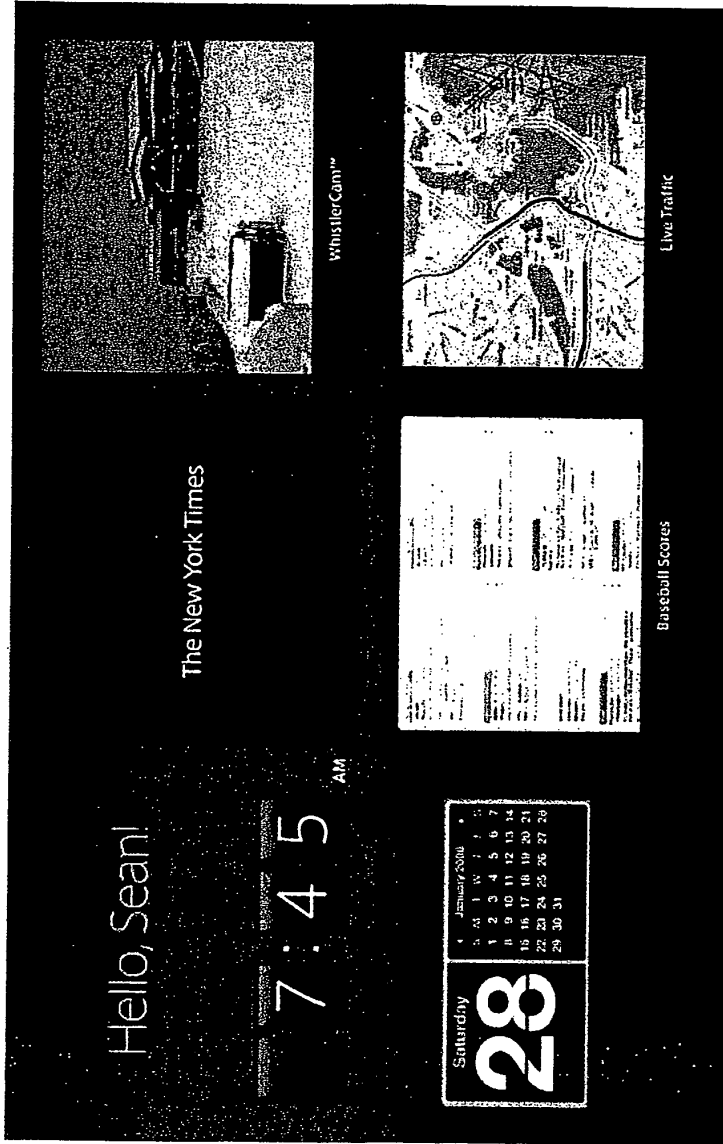


FIG. 13

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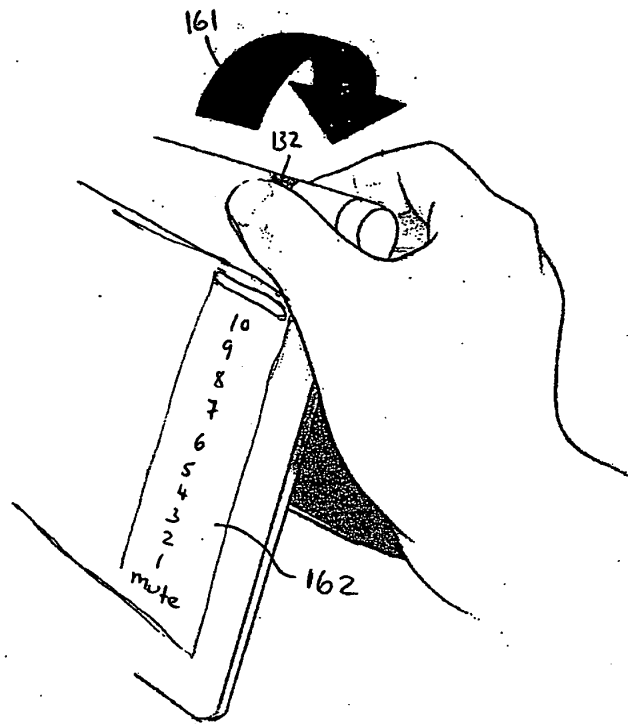


FIG. 14

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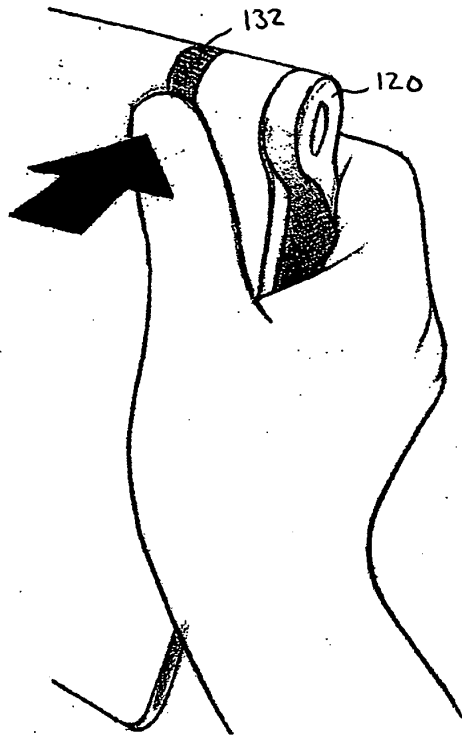


FIG. 15

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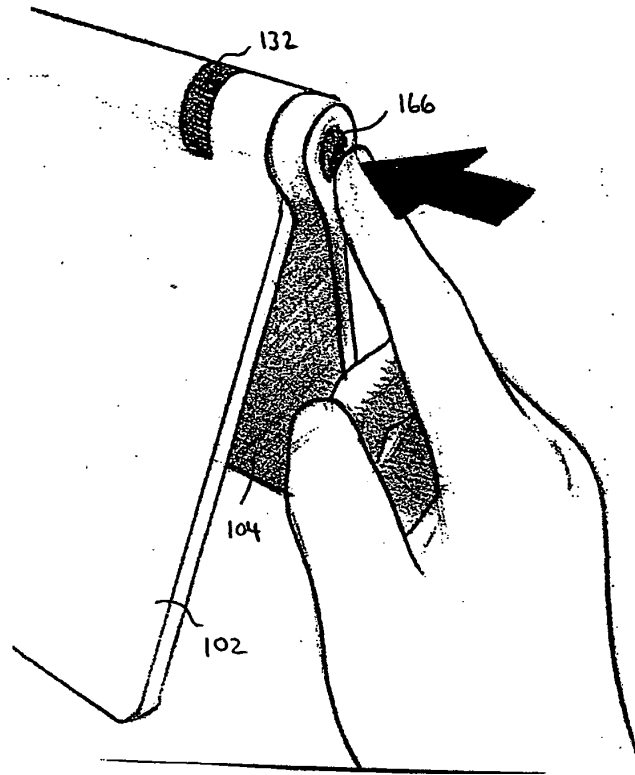


FIG. 16

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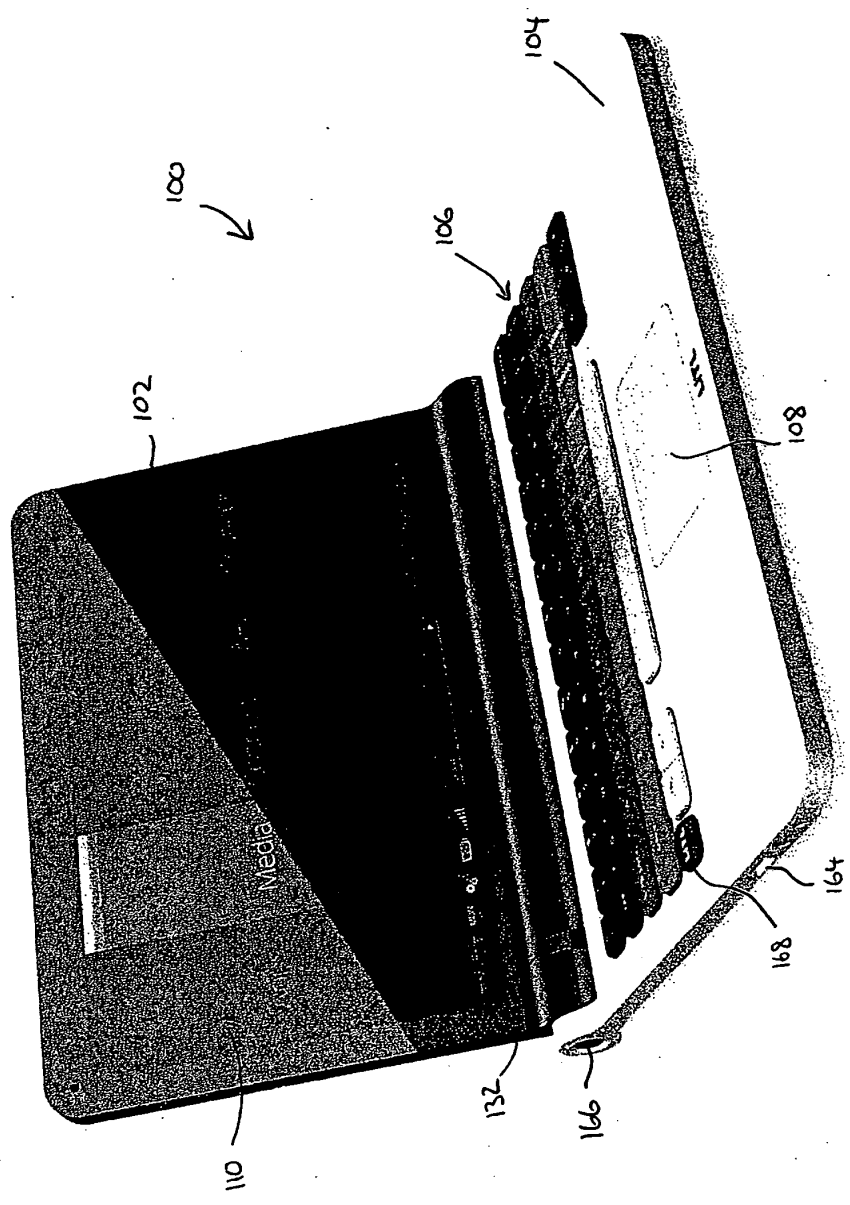


FIG. 17

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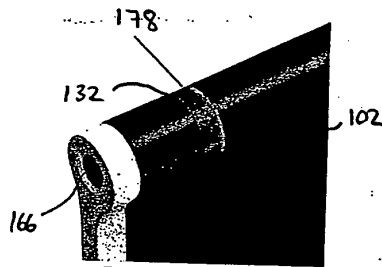


FIG 18

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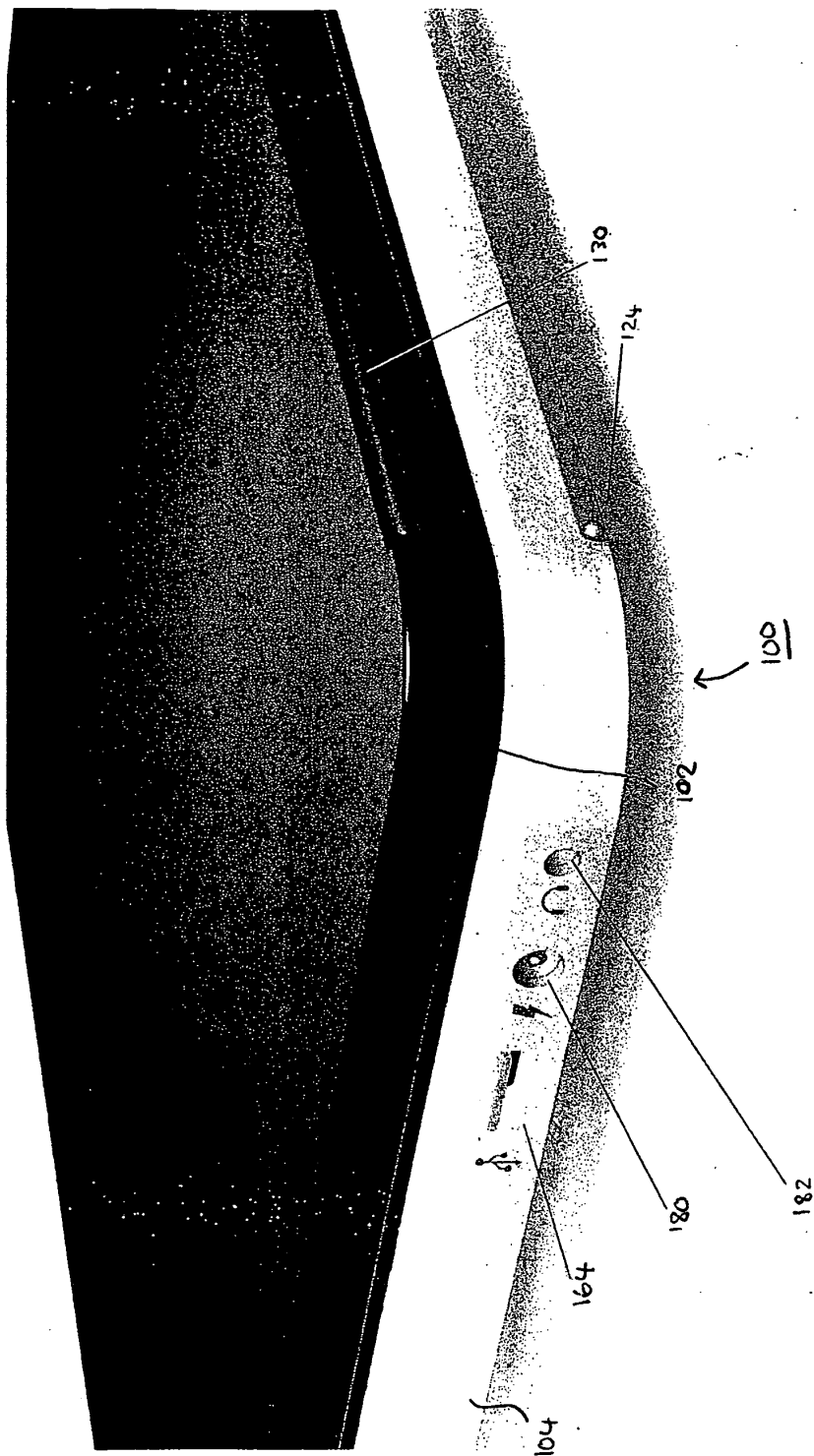


FIG. 19



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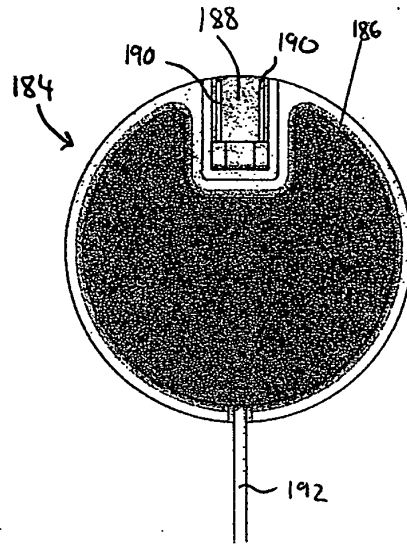


FIG 20

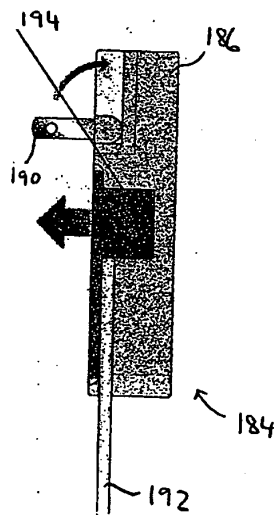


FIG 21

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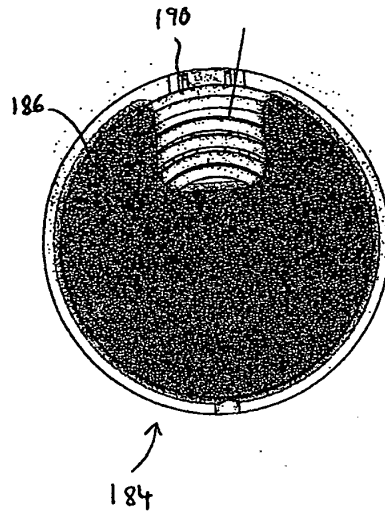


FIG. 22A

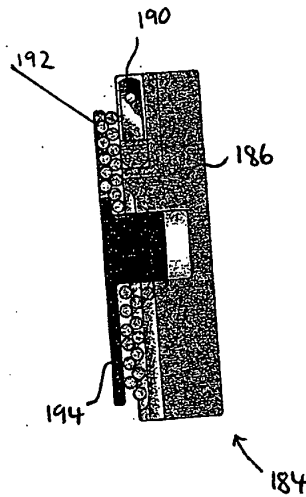


FIG. 22B

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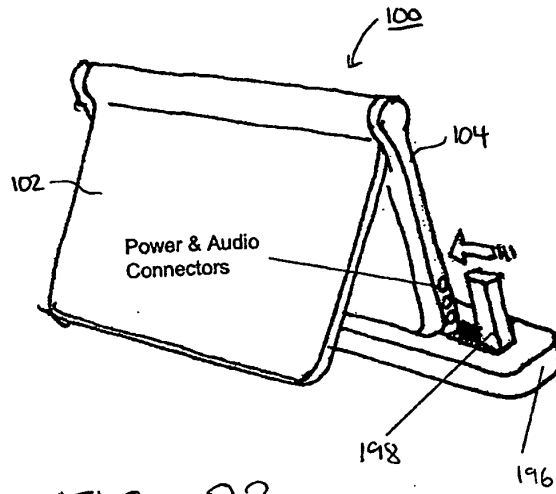


FIG 23

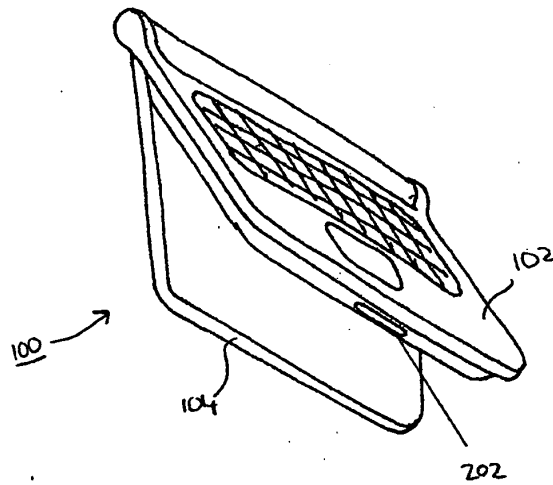


FIG. 24

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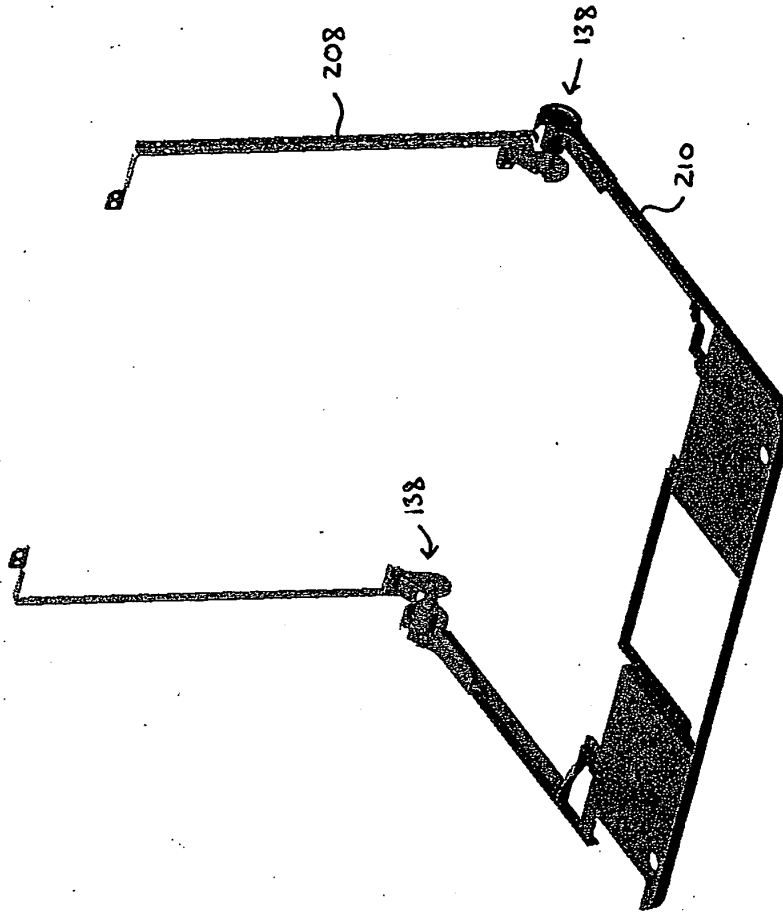


FIG. 25

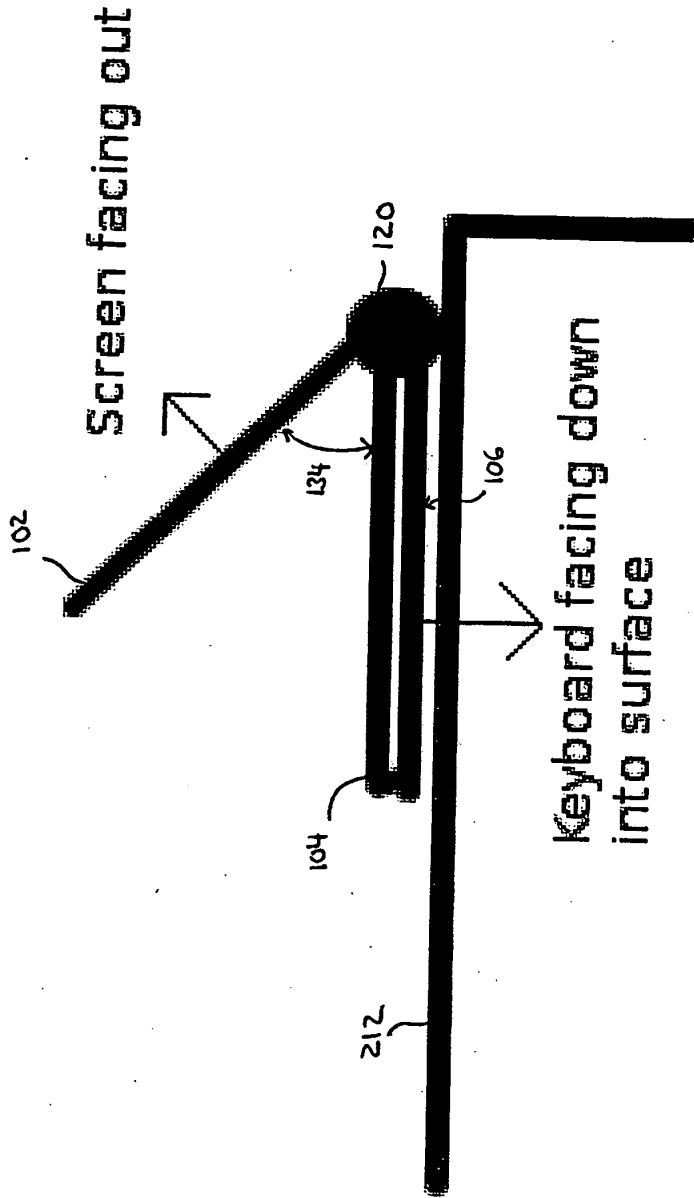


FIG. 26

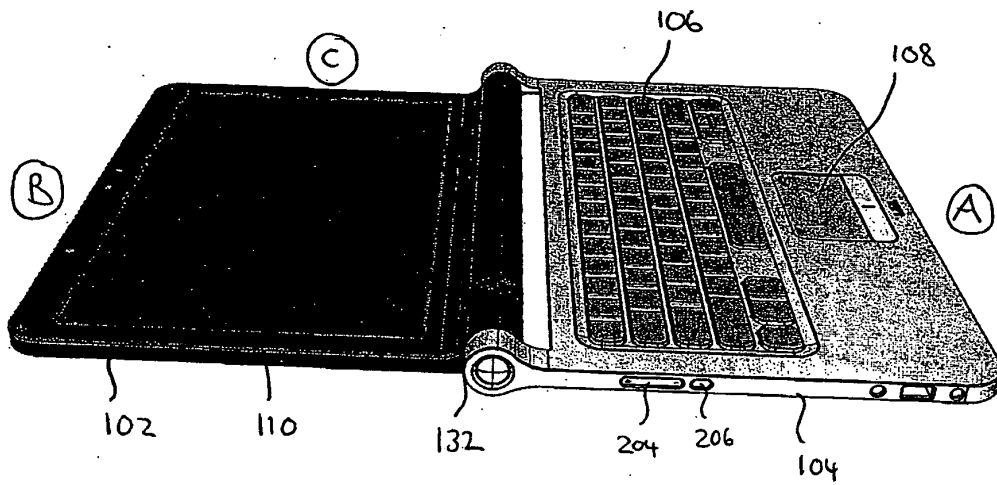


FIG. 27

Filing Date: 07/10/08

Approved for use through 7/31/2006. OMB 0651-0032  
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**PATENT APPLICATION FEE DETERMINATION RECORD**  
Substitute for Form PTO-875

12/170,939

**APPLICATION AS FILED – PART I**

(Column 1) (Column 2)

FOR	NUMBER FILED	NUMBER EXTRA
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A
TOTAL CLAIMS (37 CFR 1.16(i))	21 minus 20 =	1
INDEPENDENT CLAIMS (37 CFR 1.16(h))	5 minus 3 =	2
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$260 (\$130 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).	
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))		

**SMALL ENTITY**

OR

**OTHER THAN SMALL ENTITY**

RATE (\$)	FEE (\$)
N/A	
N/A	
N/A	
X\$ 25	
X\$105	
185	
<b>TOTAL</b>	<b>0</b>

RATE (\$)	FEE (\$)
N/A	310
N/A	510
N/A	210
X\$50	50
X\$210	420
370	
<b>TOTAL</b>	<b>1500</b>

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

**APPLICATION AS AMENDED – PART II**

(Column 1) (Column 2) (Column 3)

AMENDMENT A		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total (37 CFR 1.16(i))	*	Minus	**	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=
	Application Size Fee (37 CFR 1.16(s))				
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					

**SMALL ENTITY**

OR

**OTHER THAN SMALL ENTITY**

RATE (\$)	ADDITIONAL FEE (\$)
X =	
X =	
N/A	
<b>TOTAL ADD'T FEE</b>	

RATE (\$)	ADDITIONAL FEE (\$)
X =	
X =	
N/A	
<b>TOTAL ADD'T FEE</b>	

(Column 1) (Column 2) (Column 3)

AMENDMENT B		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total (37 CFR 1.16(i))	*	Minus	**	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=
	Application Size Fee (37 CFR 1.16(s))				
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					

**SMALL ENTITY**

OR

**OTHER THAN SMALL ENTITY**

RATE (\$)	ADDITIONAL FEE (\$)
X =	
X =	
N/A	
<b>TOTAL ADD'T FEE</b>	

RATE (\$)	ADDITIONAL FEE (\$)
X =	
X =	
N/A	
<b>TOTAL ADD'T FEE</b>	

\* 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.

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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