

Motorola Mobility LLC and Google LLC Petitioners v. Multifold International Incorporated PTE, LTD.

'842 PATENT IPR HEARING DEMONSTRATIVES

Case No. IPR2025-00038

February 25, 2026



ROADMAP

1 OVERVIEW

2 CONTESTED ISSUES

Chin (Anticipation and Obviousness)

- **Limitations [1E], [11H], [16D]:** “wherein in each image capture mode a display on the first or second screen is different”
- **Claim 10 and Limitation [11A]:** “wherein in one or more controls are presented on a second screen” and “the first screen including a first gesture capture region”
- **Claims 6, 7, 13, 17, 19, Limitation [16E]:** “wherein, in the image capture mode, the device does not display an image on a first screen and displays a preview on a second screen” and similar

Whitehorn (Anticipation and Obviousness)

- **Limitations [1E], [11H]:** “wherein in each image capture mode a display on the first or second screen is different”
- **Claims 6, 7:** “wherein, in the image capture mode, the device does not display an image on a first screen and displays a preview on a second screen” and similar
- **Limitation [11B]:** “wherein the second screen faces an opposite direction from the first screen when the device is closed, and wherein an image capture lens is associated with the second screen”
- **Claim 4:** “wherein the device is in a landscape or portrait orientation”

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OVERVIEW

Overview: IPR2025-00038

- Challenged Claims: 1-7, 10-13, 16-17, 19-20
- Independent Claims: 1, 11, 16
- Grounds for Unpatentability:
 - Ground 1:** All Challenged Claims are unpatentable under pre-AIA 35 U.S.C. § 102 as being anticipated by Chin
 - Ground 2:** All Challenged Claims are unpatentable under pre-AIA 35 U.S.C. § 103 as being obvious in view of Chin
 - Ground 3:** Claims 1-7 and 11 are unpatentable under pre-AIA 35 U.S.C. § 102 as being anticipated by Whitehorn
 - Ground 4:** Claims 1-7 and 11 are unpatentable under pre-AIA 35 U.S.C. § 103 as being obvious in view of Whitehorn

OVERVIEW

Key Dispute

CLAIM	'842 PATENT	CHIN	WHITEHORN
1[P]	A method, comprising:	✓	✓
1[A]	providing a device having at least first and second screens;	✓	✓
1[B]	receiving user interface input to execute an image capture function;	✓	✓
1[C]	determining one or more of an image capture function configuration, a device orientation, and a device state; and	✓	✓
1[D]	based on one or more of the image capture function configuration, the device orientation, and the device state, entering one of one or more image capture mode,	✓	✓
1[E]	wherein in each image capture mode a display on the first or second screen is different.	! DISPUTED BY PO	! DISPUTED BY PO

OVERVIEW

'842 PATENT

Chin Discloses / Renders Obvious “In Each Image Capture Mode a Display on the 1st or 2nd Screen is Different”

(19) United States
(12) Patent Application Publication (10) Pub. No.: US 2009/0190295 A1
(43) Pub. Date: Jul. 30, 2009

(54) PORTABLE INFORMATION TERMINAL (30) Foreign Application Priority Data
(75) Inventors: Byung-wook Chin, Changwon-city (KR); Eun-Kyung Lee, Changwon-city (KR); Su-hyun Ahn, Changwon-city (KR)
(51) Int. Cl. H04M 1/00 (2006-01)
(52) U.S. Cl. 361/679.27; 361/679.55
(57) ABSTRACT

Correspondence Address:
DRINKER BIDDLE & REATH LLP

Pub. No.: US 2009/0190295 A1
Pub. Date: Jul. 30, 2009

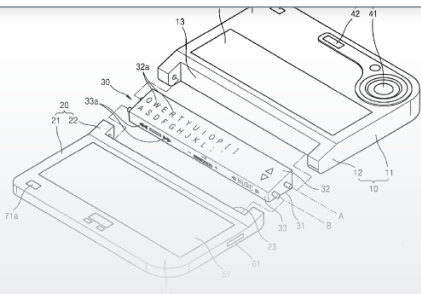
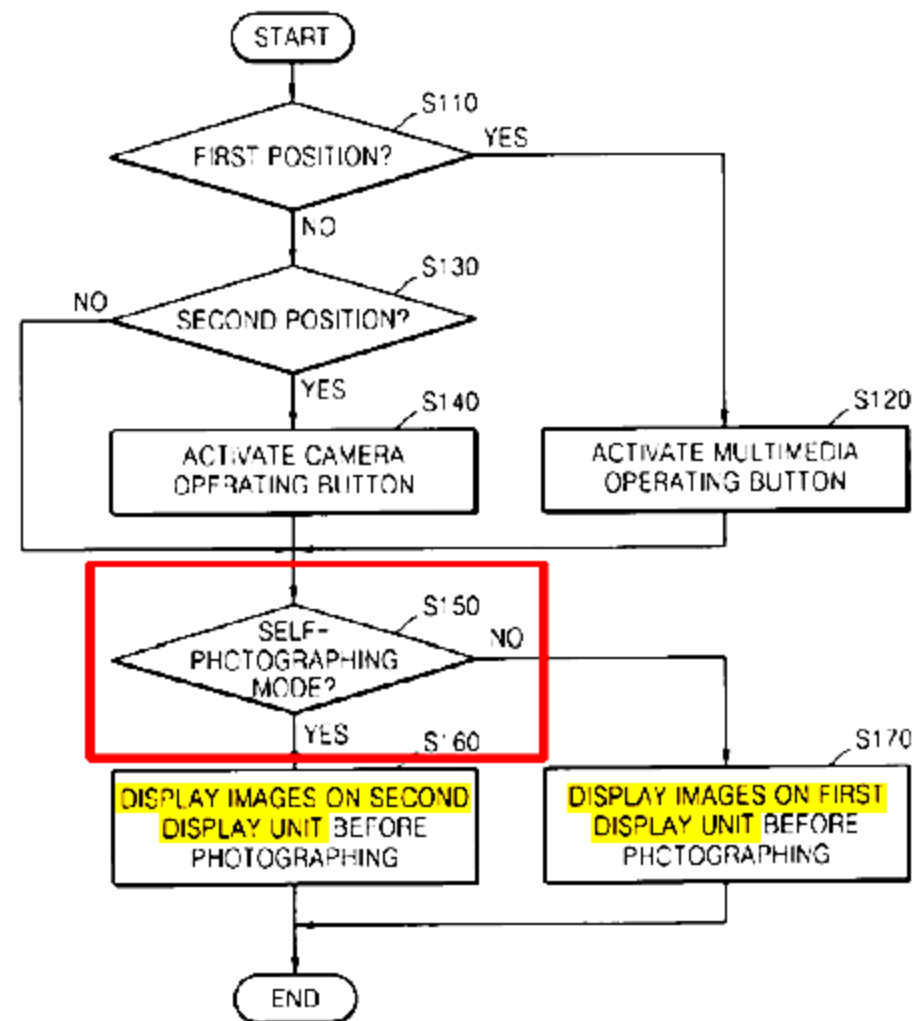


FIG. 9



OVERVIEW

'842 PATENT

Whitehorn Discloses / Renders Obvious “In Each Image Capture Mode a Display on the 1st or 2nd Screen Is Different”

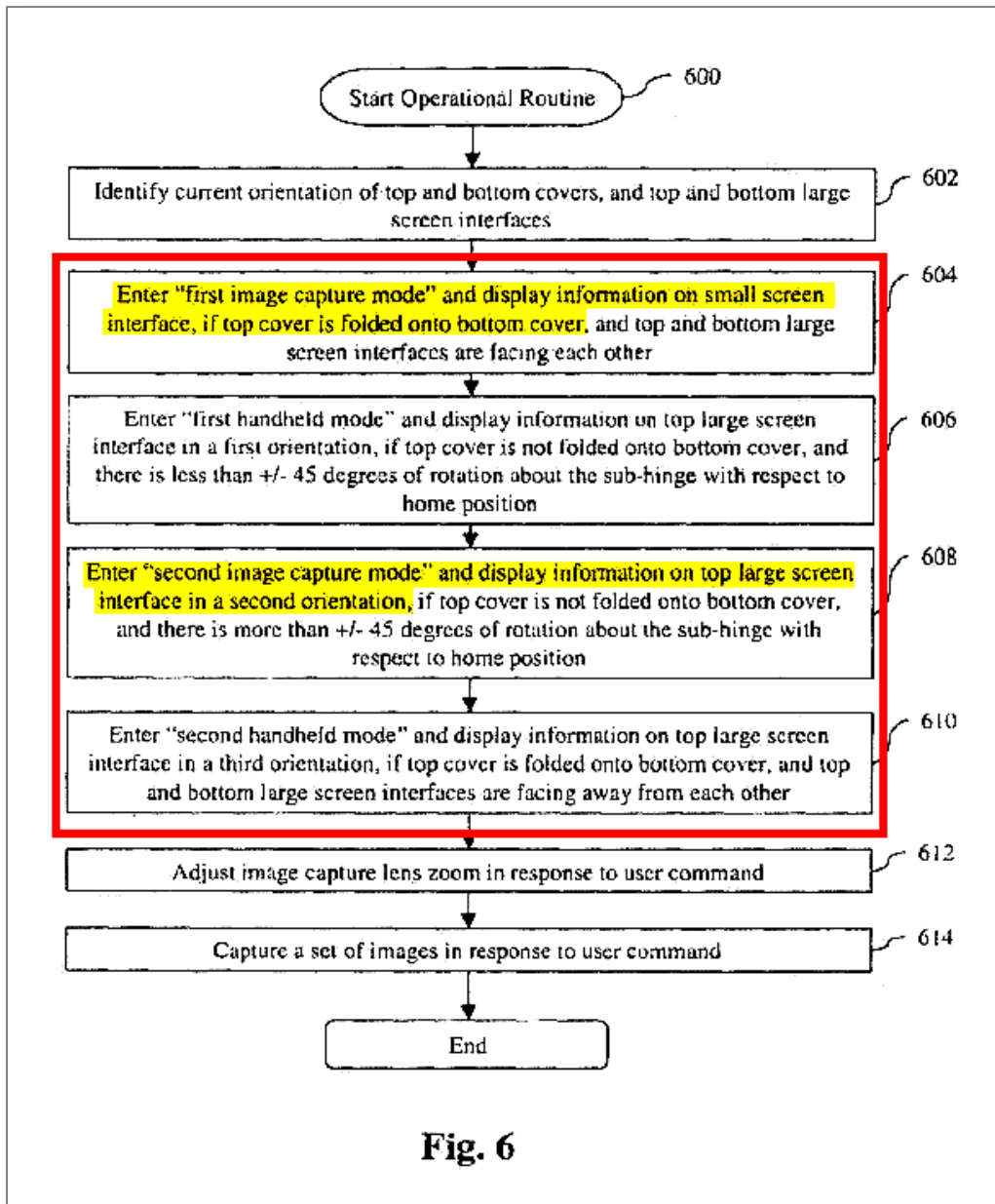


Fig. 6

ROADMAP

1 OVERVIEW

2 CONTESTED ISSUES

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- **Claim 4:** “wherein the device is in a landscape or portrait orientation”

OVERVIEW

U.S. Patent No. 8,836,842

“THE ‘842 PATENT”



**EARLIEST ASSERTED
PRIORITY DATE:**
September 26, 2012

US008836842B2

(12) **United States Patent**
Sirpal et al.

(54) **CAPTURE MODE OUTWARD FACING MODES**

(71) Applicant: Z124, George T.

(72) Inventors: Sanjiv Sirpal, C
Mohammed Se
John S. Vlosky

(73) Assignee: Z124, George T.

(*) Notice: Subject to any disclaimer, the term of this patent is extended by the term of this U.S.C. 154(b) but this patent is not a claimer.

(21) Appl. No.: 13/627,498

(22) Filed: Sep. 26, 2012

(65) **Prior Publication**
US 2013/0076929 A1 Mar. 28, 2013

Related U.S. Application Data

(60) Provisional application No. 61/539,884, filed on Sep. 27, 2011.

(51) **Int. Cl.**
H04N 5/222 (2006.01)
G06F 1/16 (2006.01)
(Continued)

(52) **U.S. CL.**
CPC *G06F 9/44* (2013.01); *G06F 1/1616* (2013.01); *H04M 1/0266* (2013.01); *G06F 3/1438* (2013.01); *H05K 7/02* (2013.01); *H05K 5/0226* (2013.01); *H05K 5/0017* (2013.01); *G06F 3/041* (2013.01); *H05K 13/046* (2013.01); *E05D 3/12* (2013.01); *G06F 3/0483* (2013.01); *G02B 6/0001* (2013.01); *H04N 5/44591* (2013.01); *G06F 1/1601* (2013.01); *G06F 3/0481* (2013.01); *G06F 3/04897* (2013.01); *G06F 3/1446* (2013.01); *H05K 7/1452* (2013.01); *G06F 9/4443* (2013.01);

(10) Patent No.: **US 8,836,842 B2**

Patent No.: US 8,836,842 B2

Date of Patent: *Sep. 16, 2014

CAPTURE MODE OUTWARD FACING MODES

(58) **Field of Classification Search**

(Continued)

OTHER PUBLICATIONS

Google Image Result for Fujitsu D unknown, [retrieved Apr. 18, 2013] google.com/imgres?imgurl=http://pages/dual-screen-phone.jpg.

(Continued)

Primary Examiner — Tuan Ho

(74) **Attorney, Agent, or Firm** — Sheridan Ross P.C.

(57) **ABSTRACT**

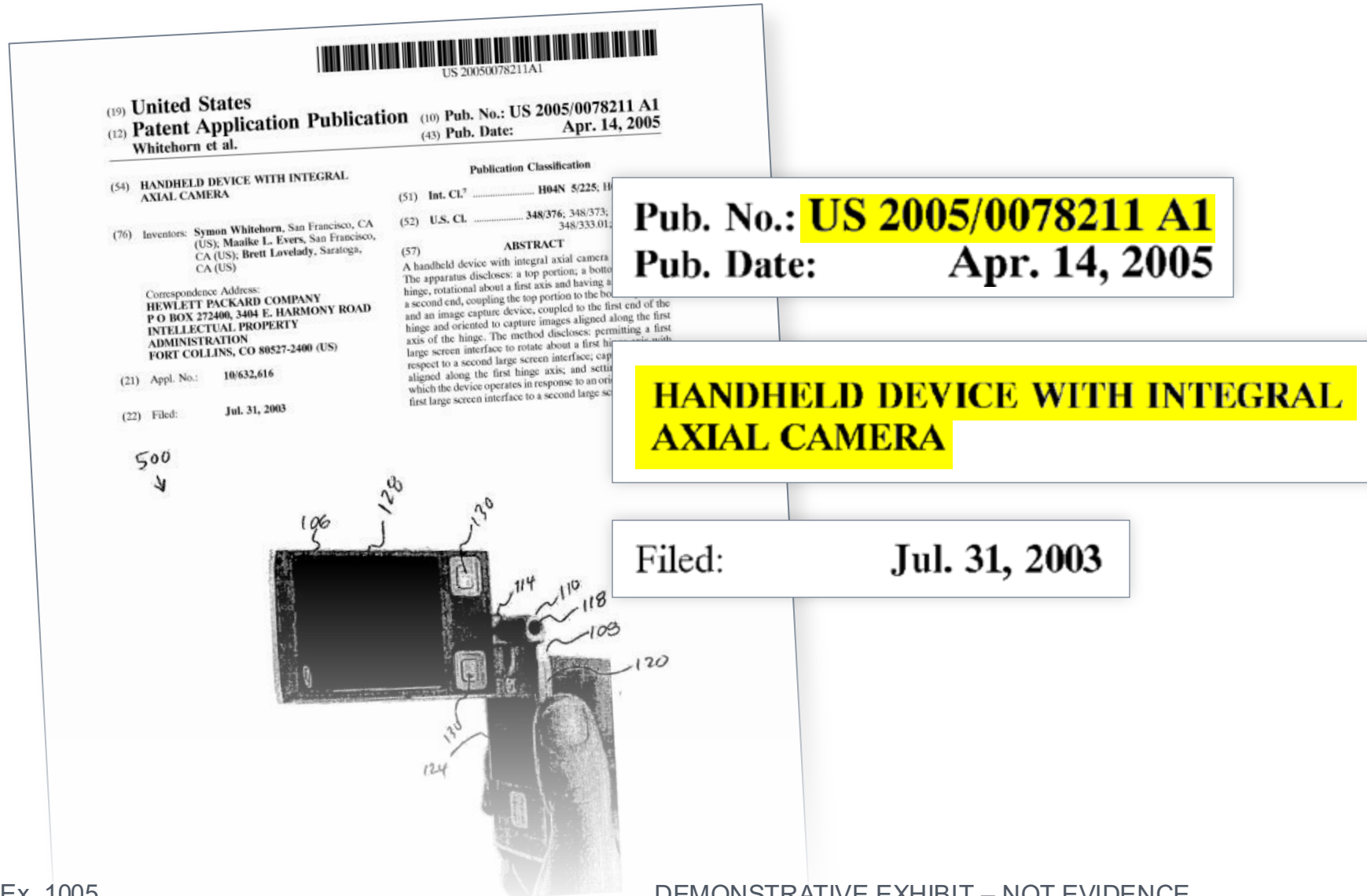
Methods and devices for selectively presenting a user interface in a dual screen device. More particularly, the method includes a change in the display mode of a multiple screen device while the device is in an image capture mode. The device may present different information on the two screens based on several factors including the mode of the image capture feature, the orientation of the device, and/or the state of the device.

20 Claims, 38 Drawing Sheets

OVERVIEW

'842 PATENT

Whitehorn Prior Art U.S. Pub. 2005/0078211 A1



DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

OVERVIEW '842 PATENT

Limitations

CLAIM 1[E] • 11[H] • 16[D]

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US008836842B2

(12) **United States Patent**
Sirpal et al.

(10) **Patent No.:** US 8,836,842 B2
(45) **Date of Patent:** *Sep. 16, 2014

(54) **CAPTURE MODE OUTWARD FACING MODES**

(71) Applicant: Z124, George Town (KY)

(72) Inventors: Sanjiv Sirpal, Oakville (CA);
Mohammed Selim, Oakville (CA);
John S. Vlosky, Gurnsey (CA)

(73) Assignee: Z124, George Town (KY)

(*) Notice: Subject to any disclaimer, the term of this

(58) **Field of Classification Search**

H05K 5/04 (2013.01); G06F 1/1641 (2013.01);
G06F 3/04883 (2013.01); H05K 13/00
(2013.01); B29D 11/00673 (2013.01); G06F
1/1637 (2013.01); G06F 5/54 (2013.01); G06F
1/00 (2013.01); G06F 3/00 (2013.01); G06F
3/1423 (2013.01); G06F 3/0412 (2013.01);
G06F 5/00 (2013.01); G06F 5/01 (2013.01);
G06F 3/048 (2013.01)

USPC 348/333.06; 348/333.05

CAPTURE MODE OUTWARD FACING MODES

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(Continued)

(52) **U.S. CL.**
CPC G06F 9/44 (2013.01); G06F 1/1616 (2013.01); H04M 1/0266 (2013.01); G06F 3/1435 (2013.01); H05K 7/02 (2013.01); H05K 5/0226 (2013.01); H05K 5/0017 (2013.01); G06F 3/041 (2013.01); H05K 1/0446 (2013.01); H05D 3/12 (2013.01); G06F 3/0403 (2013.01); G02B 6/0001 (2013.01); H04N 5/44591 (2013.01); G06F 1/1601 (2013.01); G06F 3/0401 (2013.01); G06F 3/04597 (2013.01); G06F 3/1446 (2013.01); H05K 7/1452 (2013.01); G06F 9/4443 (2013.01);

Google Image Result for Fujitsu Dual Screen Phone, published date unknown, [retrieved Apr. 18, 2011], 1 page. Retrieved from: www.google.com/imgres?imgurl=http://www.computerwiser.com/images/dual-screen-phone.jpg

(Continued)

Primary Examiner—Tuan Ho
(74) Attorney, Agent, or Firm—Sheridan Ross P.C.

(57) **ABSTRACT**
Methods and devices for selectively presenting a user interface in a dual screen device. More particularly, the method includes a change in the display mode of a multiple screen device while the device is in an image capture mode. The device may present different information on the two screens based on several factors including the mode of the image capture feature, the orientation of the device, and/or the state of the device.

20 Claims, 38 Drawing Sheets

1. A method, comprising:
 providing a device having at least first and second screens;
 receiving user interface input to execute an image capture function;
 determining one or more of an image capture function configuration, a device orientation, and a device state;
 and
 based on one or more of the image capture function configuration, the device orientation, and the device state, entering one of one or more image capture modes, wherein in each image capture mode a display on the first or second screen is different.

OVERVIEW

No Claim Construction Is Necessary

PETITIONER'S CONSTRUCTION

NO CONSTRUCTION
NEEDED

MULTIFOLD'S CONSTRUCTION

"The limitation '*wherein in each image capture mode a display on the first or second screen is different*' means 'a different display on the first screen between image capture modes or a different display on the second screen between image capture modes.' In other words, a single screen changes its display between image capture modes."

P.O. Resp., 10-11.

- Even if Multifold's construction is applied, Petitioners have shown that both Chin and Whitehorn disclose or at least render obvious this limitation
- Multifold does not dispute unpatentability under any other construction

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GROUNDS 1 & 2 '842 PATENT

Chin Anticipation and Obviousness

CLAIM 1[E]

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1. A method, comprising:
 providing a device having at least first and second screens;
 receiving user interface input to execute an image capture function;
 determining one or more of an image capture function configuration, a device orientation, and a device state;
 and
 based on one or more of the image capture function configuration, the device orientation, and the device state, entering one of one or more image capture modes, wherein in each image capture mode a display on the first or second screen is different.

- Chin's image capture modes disclose limitation [1E]
- Teaches that a display on the first or second screen is different in these two modes

US 2009/0190295 A1

[0068] When the user performs a self-photographing function in which the user photographs him or herself by using the digital camera **40**, it is desirable for the user to be able to preview him or herself. Thus, the second display unit **52** configured on a surface **11a** of the first flat board unit **11** can display live/preview and/or captured images obtained by the digital camera **40**.

Ex. 1004, [0068]

[0079] When the self-photographing mode is not selected, the portable information terminal in step **S170** displays images on a first display unit before a photograph is taken, so that the first display unit can perform a preview function.

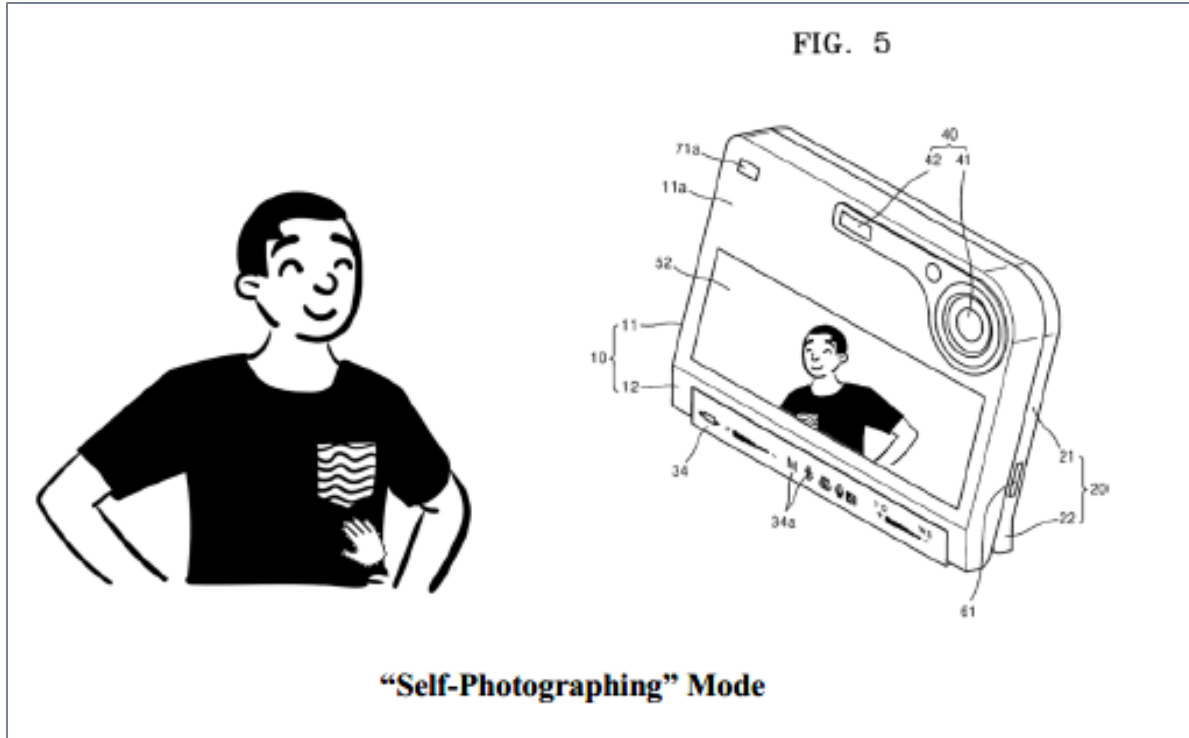
Ex. 1004, [0079]

[0078] When the self-photographing mode is selected, the portable information terminal displays images on a second display unit before a photograph is taken, so that the second display unit can perform a preview function (**S160**). The user can perform the self-photographing function while viewing him or herself displayed on the second display unit.

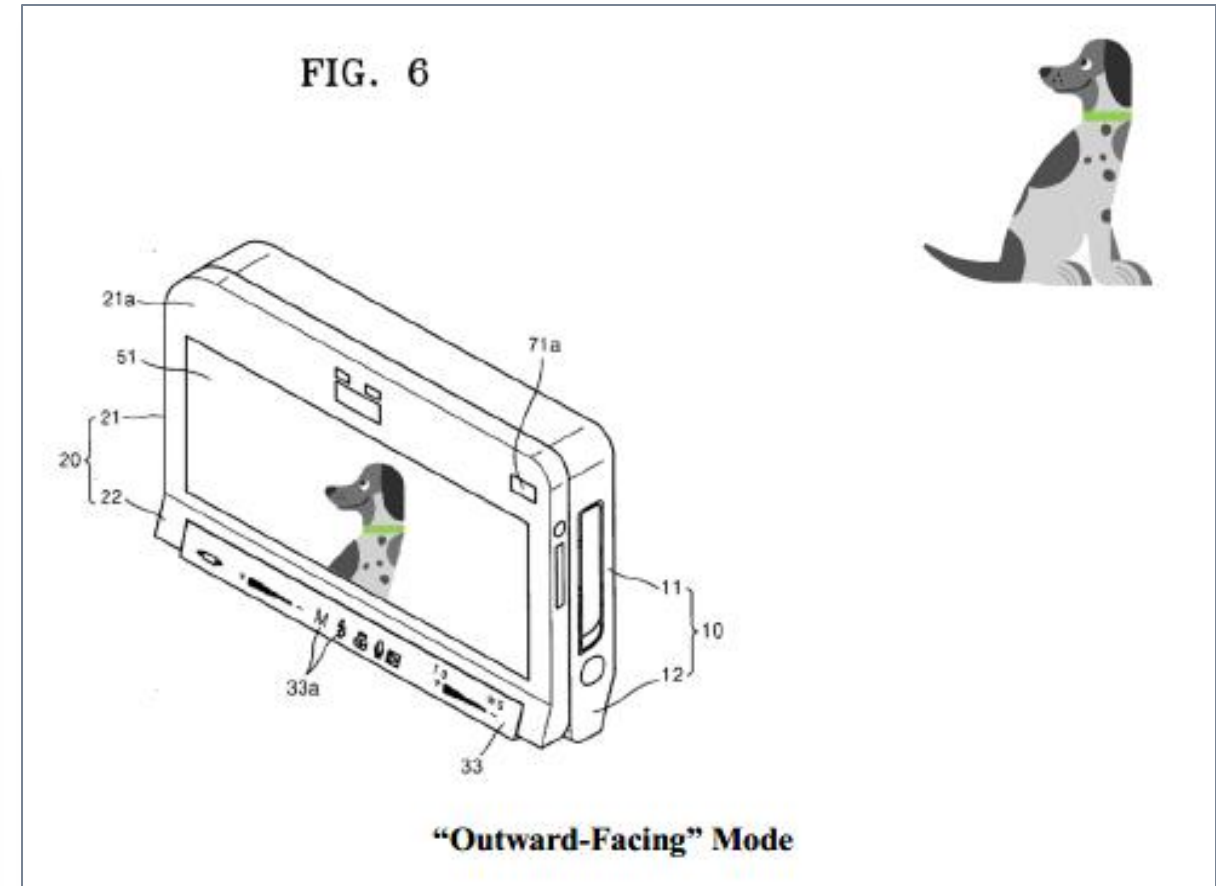
Ex. 1004, [0078]

GROUNDS 1 & 2

Chin's Image Capture Modes Disclose Limitation [1E]



Ex. 1004, Fig. 5 (annotated)

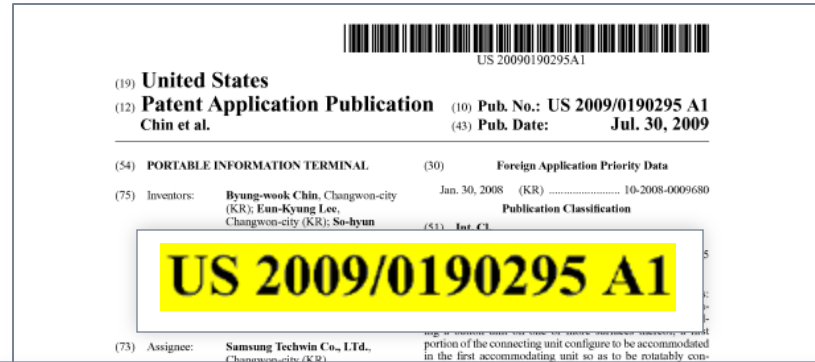


Ex. 1004, Fig. 6 (annotated)

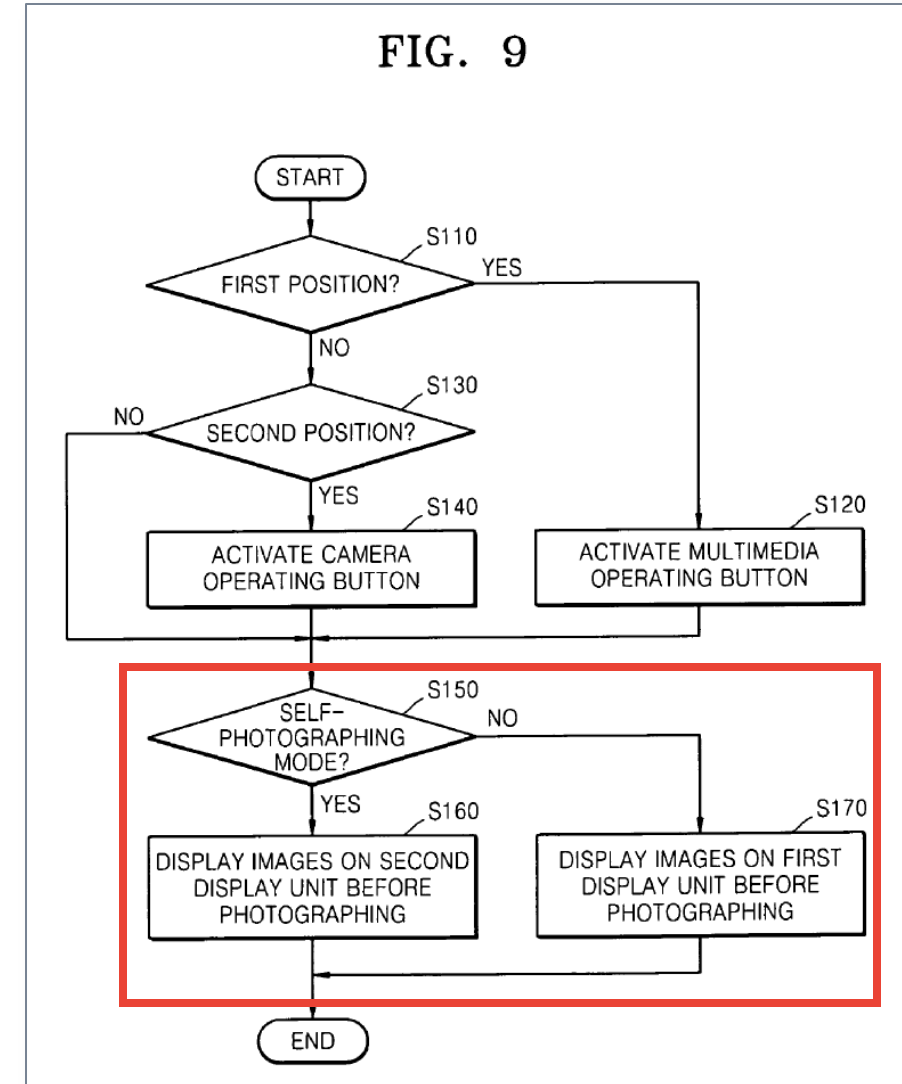
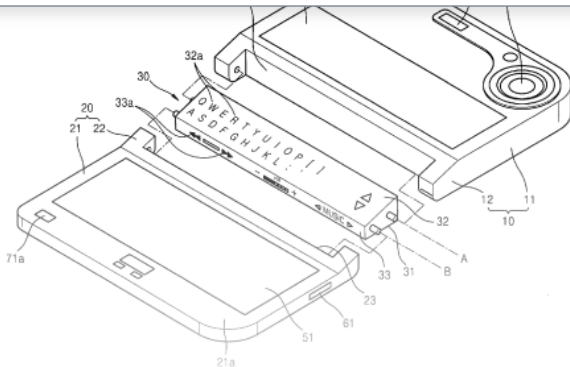
GROUND 1 & 2

CHIN ANTICIPATION & OBVIOUSNESS

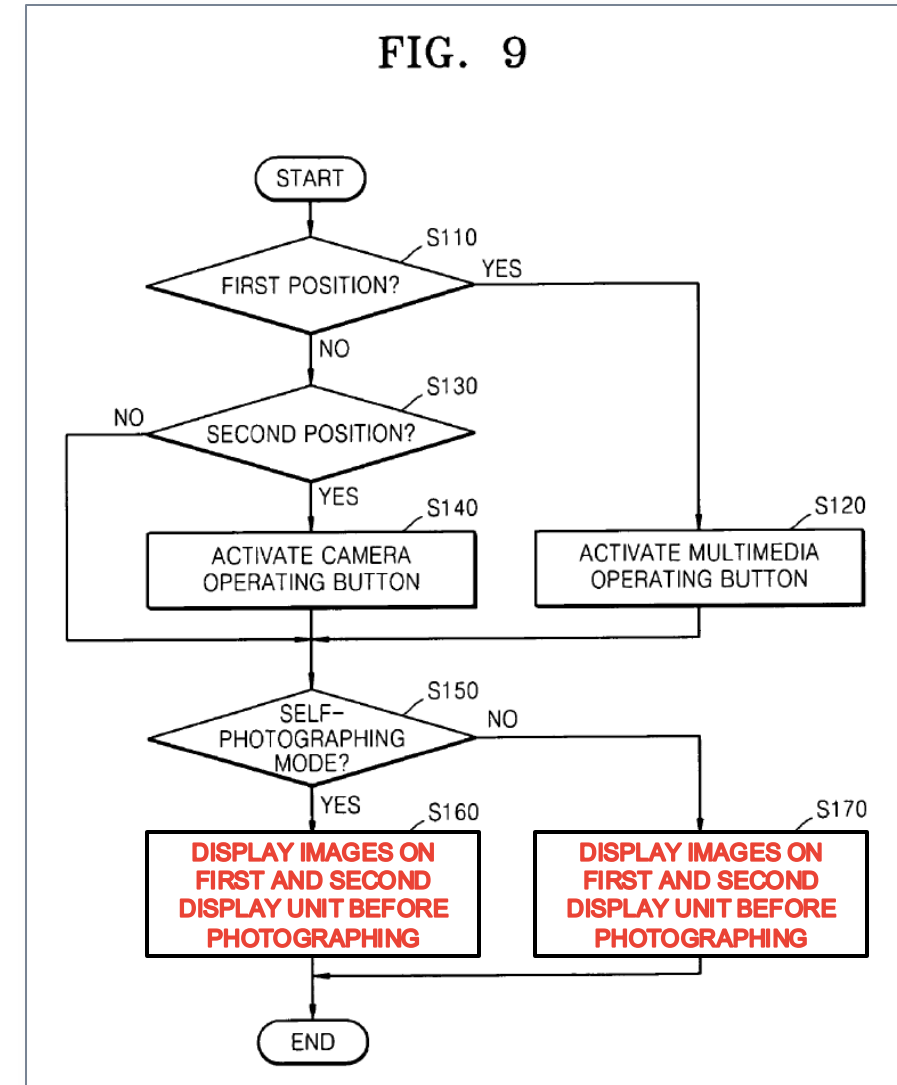
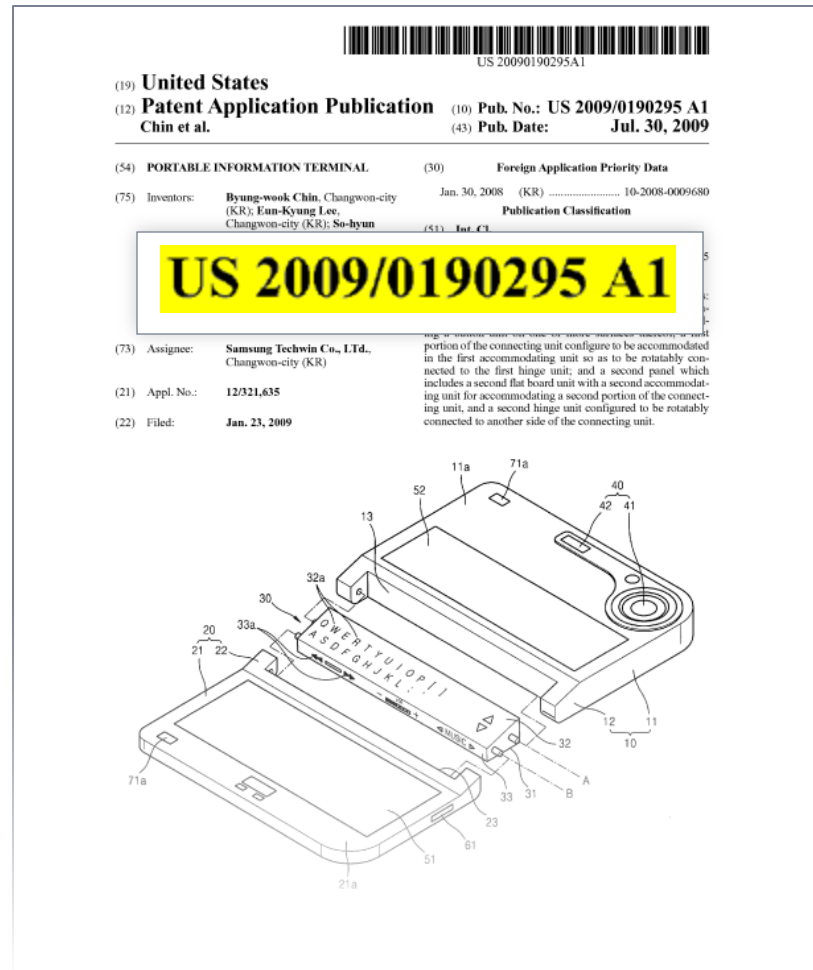
Chin's Figure 9 Confirms the Displays Are Not the Same



[0074] FIG. 9 is a flowchart of a method of controlling the portable information terminal of FIG. 1.



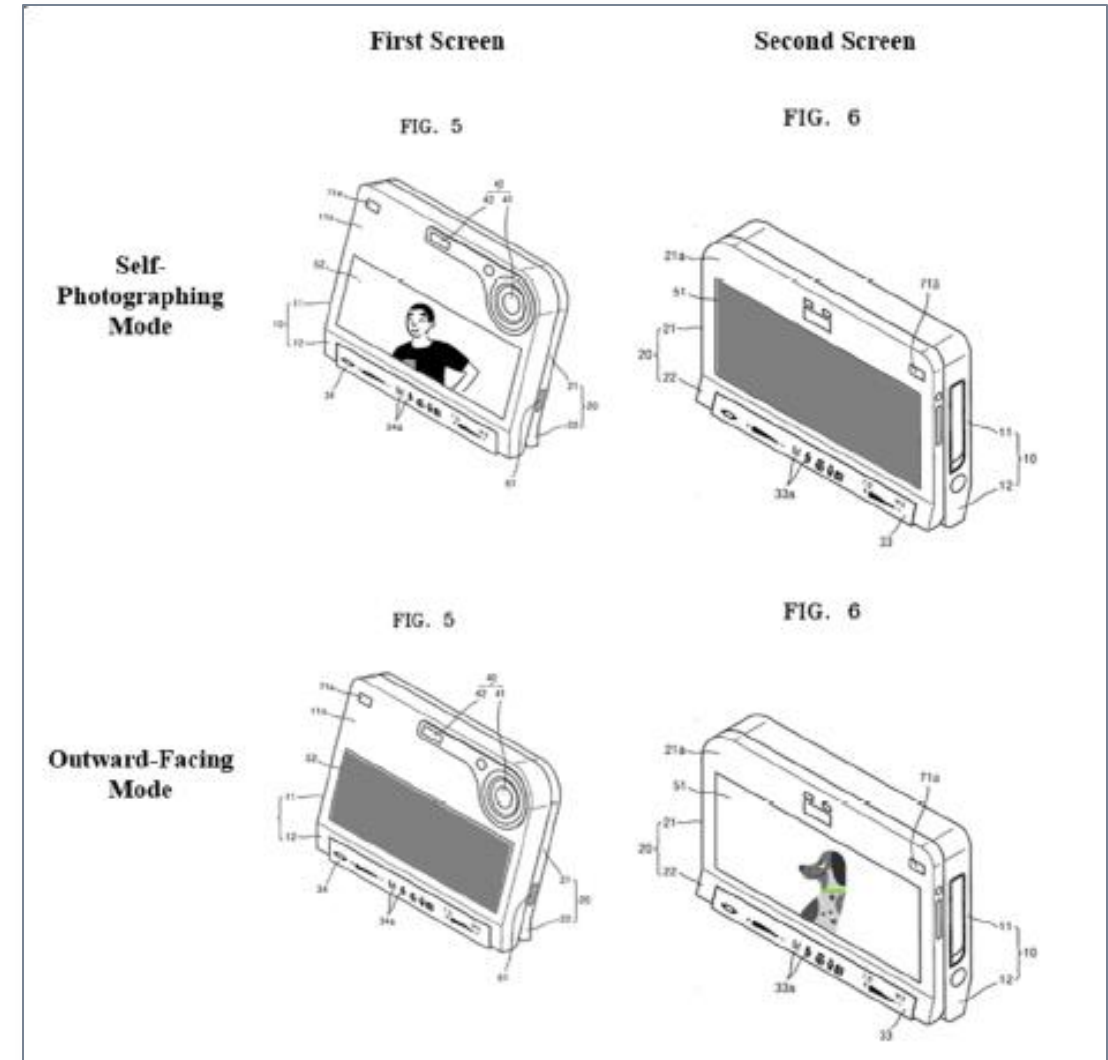
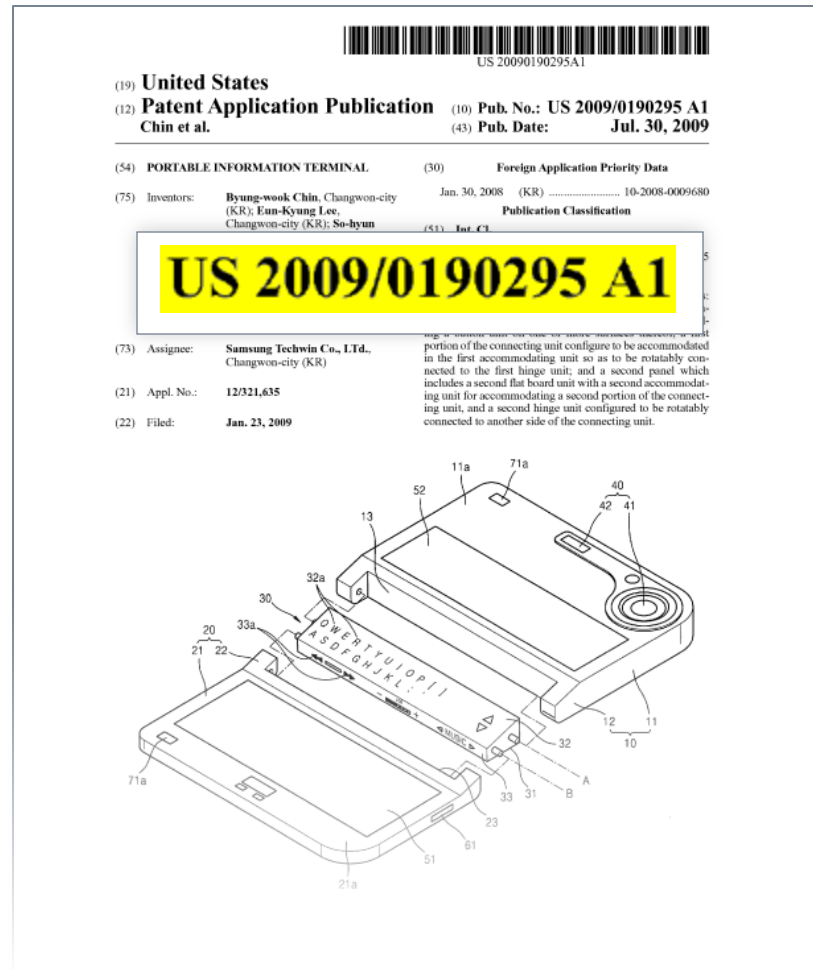
GROUND 1 & 2 **CHIN ANTICIPATION & OBVIOUSNESS** **Multifold's Attempt to Rewrite Chin's Disclosure**



GROUND 1 & 2

CHIN ANTICIPATION & OBVIOUSNESS

Chin Meets the Limitation Under Any Construction

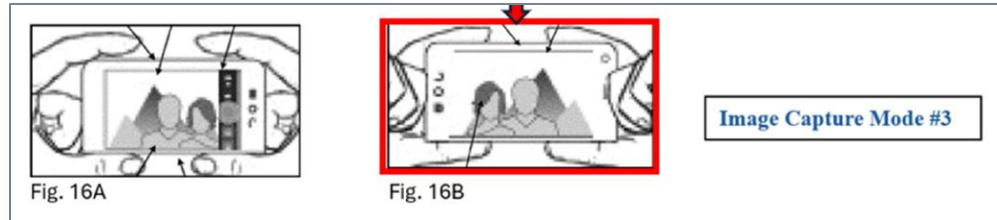


GROUND 1 & 2

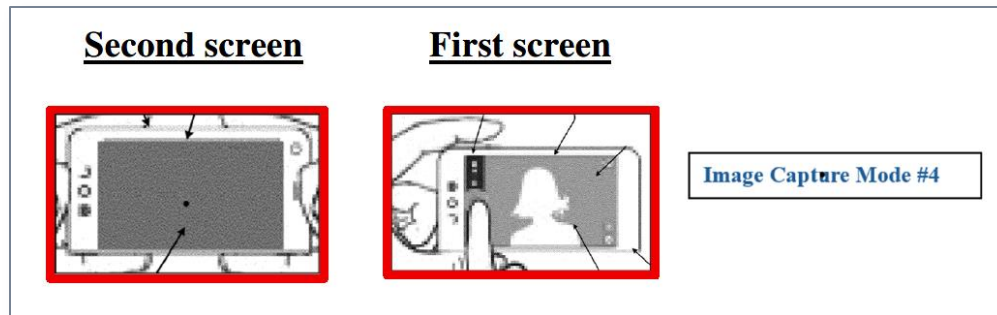
CHIN ANTICIPATION & OBVIOUSNESS

Chin Discloses Limitation 1[E] Even According to Multifold's Incorrect Interpretation

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Ex. 1001, Figs. 16A and 16B (annotated by PO)



Ex. 1001, Figs. 17 and 18 (annotated by PO)

97. A POSITA would understand Figure 18 as disclosing a fourth image capture mode where there is a different display on the first screen and a different display on the second screen. For example, the second screen has a blank display, which is different from the displays in Figures 14A/15A/16A. Also, the first screen is a display of the camera user, which is different from the displays in Figures 14B/15B/16B.

Ex. 2002, ¶ 97

- Q. So the first screen in image capture mode 4 is a different display than the first screen image in capture mode 3, which you show on page 36, right?
- A. I think that's correct.

Dr. Surati (Multifold's Expert) Ex. 1015, 26:13-17

GROUNDS 1 & 2 CHIN ANTICIPATION & OBVIOUSNESS

Even If Not Explicitly Disclosed, Limitation [1E] Would Have Been Obvious in View of Chin

Chin does not require that the non-preview screen is turned on or displaying anything

A POSITA would understand Chin as disclosing **two options**: the screen can be either **on or off**

A POSITA would be motivated to turn off the screen to save power and avoid unnecessary display

A POSITA would have found it obvious that the display on each screen changes between modes and would have been motivated to turn off or disable the screen that is not displaying the preview

GROUNDS 1 & 2 UNDISPUTED FACTS

Chin Does Not Require That the Non-Preview Screen Is Turned on or Displaying Anything

DR. SURATI

Q. There's nothing in Chin that discloses that the first display unit would display an image in the self-photographing mode, right?

A. I think that's correct.

Ex. 1015, 51:18-22

Q. There's nothing in Chin that discloses that the second display unit would display an image in the outward-facing mode, right?

A. That's correct.

Ex. 1015, 52:1-5

GROUNDS 1 & 2 UNDISPUTED FACTS

A POSITA Would Understand Chin as Disclosing Two Options: Screen Either On or Off

DR. RODRIGUEZ

257. Chin teaches that images are displayed on either the first or second screen to perform a preview function, depending on the image capture mode. Ex. 1004, Fig. 9, [0078]-[0079]. Because Chin specifies that the preview is shown on one screen or the other, and not on both screens in both modes, a POSITA at least would have found it obvious that the display on each of the screens changes between modes. Indeed, a POSITA would have understood that the screen *not* described as showing the preview would have one of two states: either on or off. Accordingly, a POSITA obviously would have had a design choice between those two states when designing a device according to Chin's teachings.

Ex. 1003, ¶ 257

DR. SURATI

Q. The person skilled in the art would understand a mobile device's screen could be designed to turn off, right?

A. Sure.

Q. That was within the knowledge of a POSITA. You would agree with that?

A. I think that's true.

Q. You would agree that in the self-photographing mode, the first display unit could not display something, right?

A. So I think it is a choice that could be made. So yes.

GROUNDS 1 & 2 UNDISPUTED FACTS

A POSITA Would Understand that Battery Life Was Limited in 2011

DR. RODRIGUEZ

258. And, among those two options, a POSITA in or around 2011 would have been motivated to turn off or disable a screen that is not facing the user because doing so would save power. In or around 2011, battery capacity was limited and turning off power to one screen in a multi-screen device was a known design option and well within the ability of a POSITA. And this would have made intuitive sense to a POSITA: displaying a preview of the image is for the benefit of the user taking the photo. Because the “outward-facing image” is captured by a lens on the side of

Ex. 1003, ¶ 258

DR. SURATI

Q. In 2011, around the time of the '842 patent's invention, the battery capacity of mobile devices was limited, right?

A. Yes.

Ex. 1015, 85:12–16

GROUNDS 1 & 2 UNDISPUTED FACTS

A POSITA Would be Motivated to Turn Off a Non-Viewed Screen to Save Battery

DR. RODRIGUEZ

258. And, among those two options, a POSITA in or around 2011 would have been motivated to turn off or disable a screen that is not facing the user because doing so would save power. In or around 2011, battery capacity was limited and turning off power to one screen in a multi-screen device was a known design option and well within the ability of a POSITA. And this would have made intuitive sense to a POSITA: displaying a preview of the image is for the benefit of the user taking the photo. Because the “outward-facing image” is captured by a lens on the side of

Ex. 1003, ¶ 258

DR. SURATI

Q. But at least one reason why you might in some circumstances want to turn off a screen that's not being viewed as to save battery life; is that fair to say?

A. You could do that.

Ex. 1015, 86:11–16

Multifold's Counter-Arguments Knock Down Strawmen

1. Petitioners are **not proposing** a complicated "facial recognition" modification, nor is that modification necessary
2. Petitioners **did address** reasonable expectation of success for this limitation
3. Multifold **mischaracterizes** Petitioners' obviousness theory

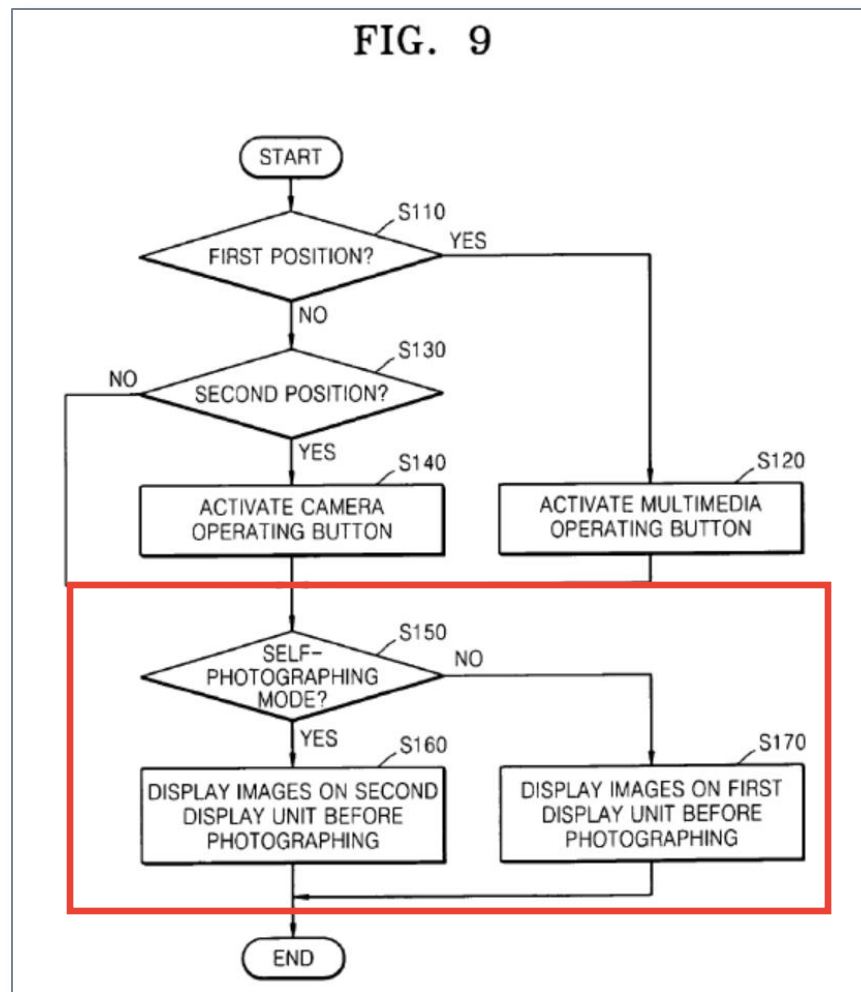
GROUND 1 & 2

Chin Does Not Require Facial Recognition to Enter Self-Photographing Mode

US 2009/0190295 A1

[0077] When the positions of the first and second panels are in a state in which a digital camera can be used, it is judged in step S150 whether the portable information terminal is set or otherwise being used in a self-photographing mode. The self-photographing mode in which a user photographs him or herself can be set by allowing the user to operate the portable information terminal in order to select the mode, or by allowing a controlling unit to automatically select the mode when the first and second panels are in the second position.

Ex. 1004, [0077]



Ex. 1004, Fig. 9 (annotated)

GROUNDS 1 & 2 CHIN ANTICIPATION & OBVIOUSNESS

Petitioners Addressed Reasonable Expectation of Success



KSR Int'l Co. v. Teleflex Inc.,
550 U.S. 398, 402–03 (2007)

“When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill in the art has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.”

other touch screen during the image capture process. Ex. 1003, ¶ 258. Turning off power to one screen in a multi-screen device was a known design option and well within the ability of a POSITA. *Id.* For the same reasons, the limitations of claims

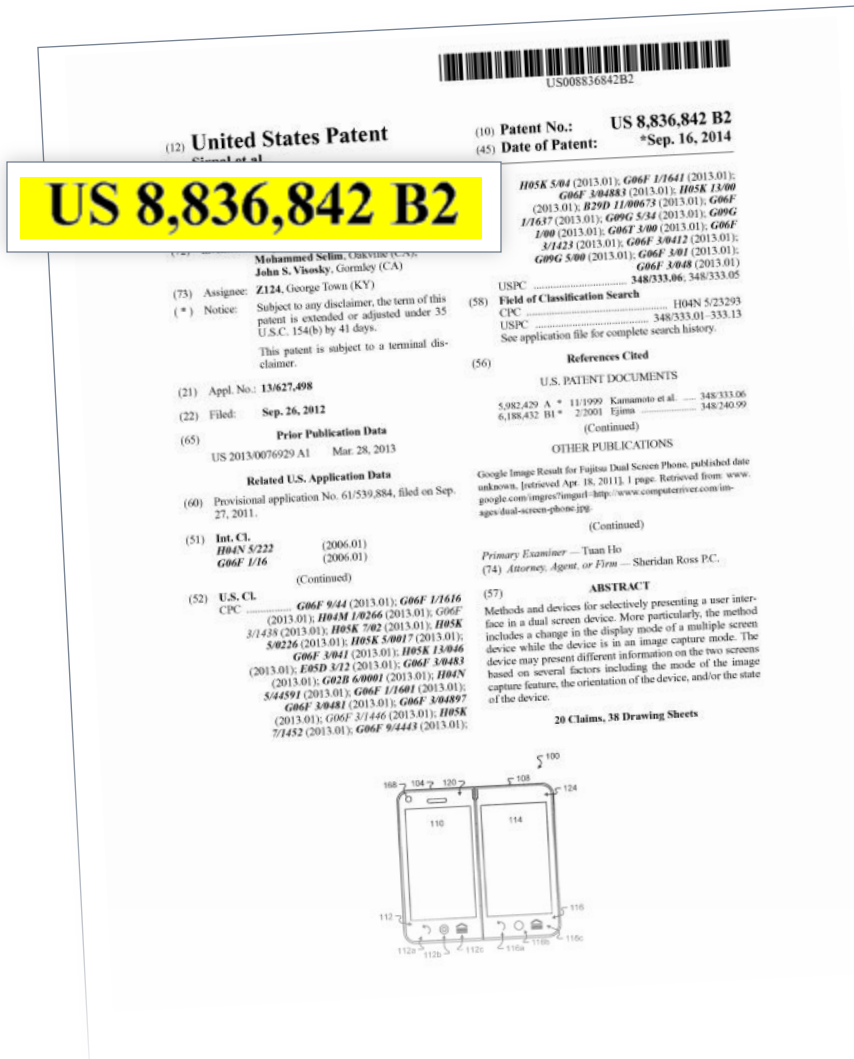
Petition, 55.

Inc., 550 U.S. 398, 402–03 (2007). Limitation [1E] as taught by Chin is the simplest possible execution of this rule: a POSITA would have desired to save battery life, there are but two options for the screens (off or on), a POSITA would know that turning the screens off would save battery, the modification would not have detrimentally affected the device’s operation, and it would have been technologically feasible. The limitation is clearly, at minimum, obvious in light of Chin.

Petitioner’s Reply, 22-23

GROUND 1 & 2

Chin Discloses Claim 10 and Limitation [11A]



10. The method of claim 5, wherein in one or more controls are presented on a second screen.

11. A device, comprising:
a first screen, the first screen including a first gesture capture region;

a second screen, wherein the second screen faces an opposite direction from the first screen when the device is closed, and wherein an image capture lens is associated with the second screen;

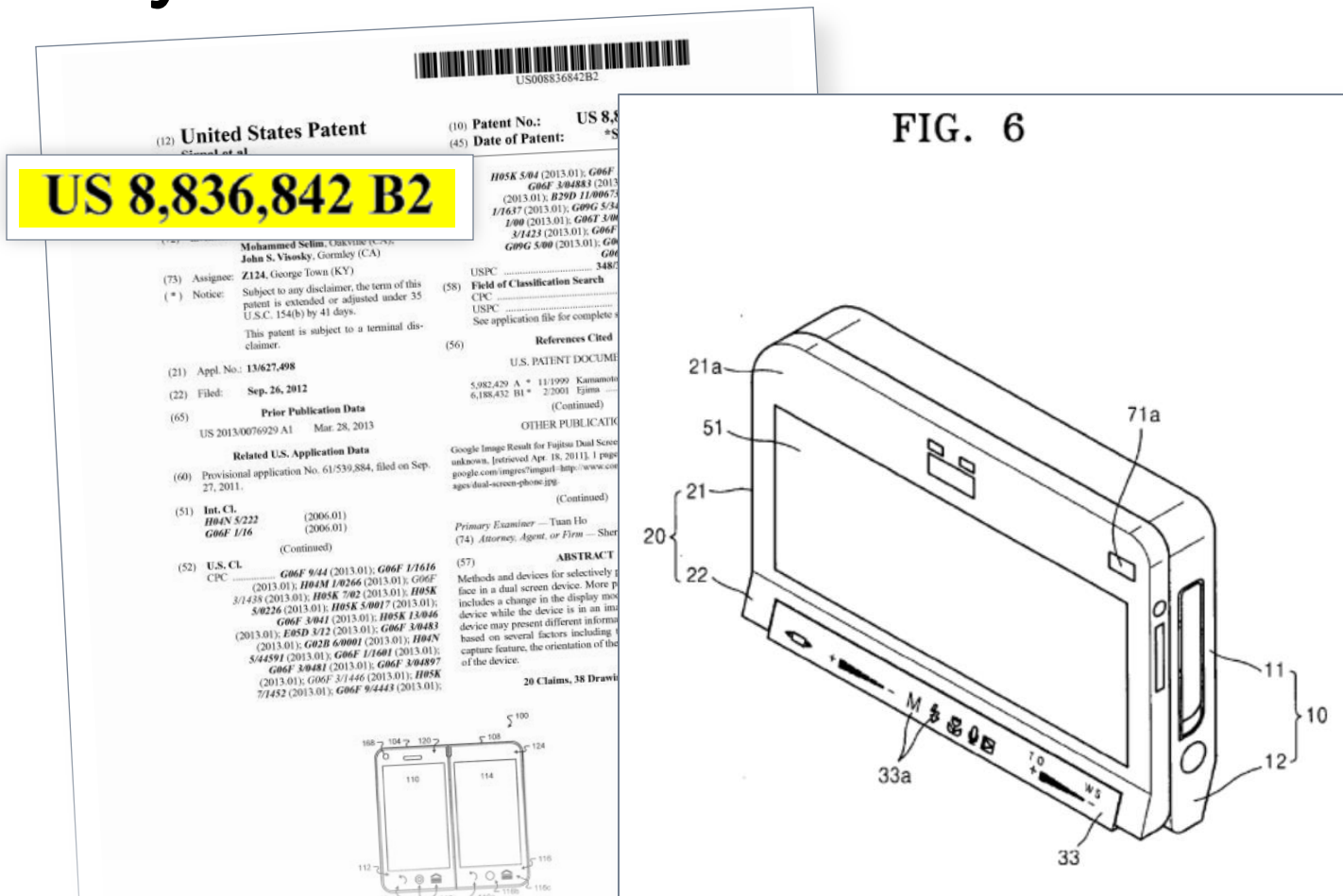
a memory;

a processor in communication with the memory, the first screen, and the second screen, the processor operable to: receive user interface input to execute an image capture function;

determine one or more of an image capture function configuration, a device orientation, and a device state; based on one or more of the image capture function configuration, the device orientation, and the device state, enter one of one or more image capture modes, wherein in each image capture mode a display on the first or second screen is different.

GROUND 1 & 2 CHIN ANTICIPATION & OBVIOUSNESS

Chin Discloses That the First or Second Display Units May be a Touch Screen



Ex. 1004, Fig. 6

[0045] A first display unit **51** is configured on a first generally planar surface **21a** of the second flat board unit **21**, and a second display unit **52** is configured on the first generally planar surface **11a** of the first flat board unit **11**. The first display unit **51** may be a display apparatus such as a color liquid crystal display (LCD) apparatus and the like for displaying web pages, text, or images.

[0061] The second button unit **33a** includes a plurality of push-type buttons (e.g., microswitches, snap domes, etc.) which may include a light-emitting diode (LED). As shown in FIG. 2, some of the buttons of button unit **33a** may have a function of the camera operating button **33b** and some may have a function of the multimedia operating button **33c**. Accordingly, the second button unit **33a** receives signals from the controlling unit **70** (relative to the sensor unit **71**) so as to activate the camera operating button **33b** or the multimedia operating button **33c**. The structure of the second button unit **33a** is not limited to the above structure, and may be embodied by using different components such as a touch screen-type liquid crystal display.

Ex. 1004, [0045] and [0061]

GROUND 1 & 2

Multifold's Interpretation of Chin Is Overly Narrow

Petitioners and their expert are incorrect because Chin does not disclose or suggest that either the first display unit 51 and second display unit 52 is a touch screen device, let alone a touch screen device with buttons as alleged. Petitioners and their expert rely entirely on paragraph [0061] of Chin, which explains that a second button unit 33a on **connecting unit 30**—not on first screen unit 51 or second screen unit 52—can have buttons on a touch screen surface:

[0061] The **second button unit 33a [on connecting unit 30]** includes a plurality of push-type buttons (e.g., microswitches, snap domes, etc.) which may include a light-emitting diode (LED). As shown in FIG. 2, some of the buttons of button unit 33a may have a function of the camera operating button 33b and some may have a function of the multimedia operating button 33c. ... The structure of the **second button unit 33a [on connecting unit 30]** is not limited to the above structure, and may be embodied by using different components such as a touch screen-type liquid crystal display.

Chin, [0061] (cited by Pet., at 39, and Rodriguez Decl., ¶¶ 165-166. Surati Decl., ¶ 184.

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[0061] The **second button unit 33a** includes a plurality of push-type buttons (e.g., microswitches, snap domes, etc.) which may include a light-emitting diode (LED). As shown in FIG. 2, some of the buttons of button unit 33a may have a function of the camera operating button 33b and some may have a function of the multimedia operating button 33c. Accordingly, the second button unit 33a receives signals from the controlling unit 70 (relative to the sensor unit 71) so as to activate the camera operating button 33b or the multimedia operating button 33c. The structure of the **second button unit 33a** is not limited to the above structure, and may be embodied by using different components such as a touch screen-type liquid crystal display.

Ex. 1004, [0061]

GROUNDS 1 & 2 UNDISPUTED FACTS

Chin Discloses that the Display Units May Be LCD Displays

DR. RODRIGUEZ

252. Nonetheless, a POSITA at least would have found it obvious to modify Chin's disclosure (to the extent such a modification was deemed necessary) to implement Chin's display units using touch screens. Initially, Chin discloses that its "display units" (the claimed "screens") can be liquid crystal displays, and further, that liquid crystal displays *can be* of a "touch-screen type." Ex. 1004, [0061]. From this disclosure alone, a POSITA would have been motivated to implement the display units using touch screens, because there is an express suggestion for a liquid crystal display to be a touch screen type.

Ex. 1003, ¶ 252

DR. SURATI

Q. Now, Chin had two display units, 51, 52, we looked at earlier, right?

A. Right.

Q. You would agree that Chin discloses that those two display units could be an LCD screen, right?

A. I think that's fair.

Ex. 1015, 87:4-10

GROUNDS 1 & 2 UNDISPUTED FACTS

Touch Screen LCDs Were Well-Known Input Options

DR. RODRIGUEZ

253. A POSITA would have known that, even by 2011, the '842 patent's earliest priority date, it was well known in the art to use touch screens as a user interface for portable electronic devices, including using touch screen input to take a picture. Famously, the original iPhone launched in 2007 with a full touchscreen interface and a camera. Even the '842 patent acknowledges that "[a] substantial number of handheld computing devices, such as cellular phones, tablets, and E-Readers, make use of a touch screen display not only to deliver display information to the user but also to receive inputs from user interface commands." Ex. 1001, 1:15-19.

Ex. 1003, ¶ 253

DR. SURATI

Q. Is that something that you can answer sitting here today, whether there was a touchscreen LCD known in 2010?

A. I think that it's fair to say there are LCD touchscreens out there at that time.

Ex. 1015, 88:8-13

GROUNDS 1 & 2 UNDISPUTED FACTS

Chin Discloses That LCDs Could Be Touch-Screen Type

DR. RODRIGUEZ

252. Nonetheless, a POSITA at least would have found it obvious to modify Chin's disclosure (to the extent such a modification was deemed necessary) to implement Chin's display units using touch screens. Initially, Chin discloses that its "display units" (the claimed "screens") can be liquid crystal displays, and further, that liquid crystal displays *can be* of a "touch-screen type." Ex. 1004, [0061]. From this disclosure alone, a POSITA would have been motivated to implement the display units using touch screens, because there is an express suggestion for a liquid crystal display to be a touch screen type.

Ex. 1003, ¶ 252

DR. SURATI

- Q.** Confirming: Chin does disclose that liquid crystal displays could be touchscreen-type, right?
- A.** It discloses that you could replace button - button unit, the second button unit is not limited to the above structure and may be embodied by using different components such as a touchscreen-type liquid crystal display.

Ex. 1015, 91:16-92:6 (objection omitted)

GROUNDS 1 & 2 UNDISPUTED FACTS

Chin Discloses That the Structure of the Input Options Were Not Limited

DR. SURATI

Q. The last sentence of paragraph 46 reads, quote, However, the present invention is not limited to the illustrated configuration of display apparatuses, (i.e., the first display unit 51 and the second unit 52). Furthermore, the display apparatuses are not limited to LCD apparatuses, and an organic light-emitting diode (OLED) can also be used as the first display unit 51 and the display 52.

Do you see that?

A. I do.

Ex. 1015, 93:6-18

Q. Do you agree based on this disclosure, a POSITA would understand a modification of the displays taught in Chin is possible?

A. (Reviewing.)
So I read it discloses that you could use other kinds of displays in different arrangements.

Ex. 1015, 93:19-94:6 (objection omitted)

GROUNDS 1 & 2

A POSITA Would Have Been Motivated To Modify Chin

1006, [0235]. A POSITA would have been motivated to add touch screen functionality to Chin (and in particular, the functionality to control the camera and take an image), to the extent any modification were deemed necessary, as a known technique to improve Chin's device by adding another input option that some users may have deemed desirable. Given the well-known and understood nature of this functionality as exemplified by the references discussed immediately above, a POSITA would have reasonably expected success in doing so as the modification would have just required programming Chin's device within the skill of a POSITA.

Ex. 1003, ¶ 254

GROUNDS 1 & 2

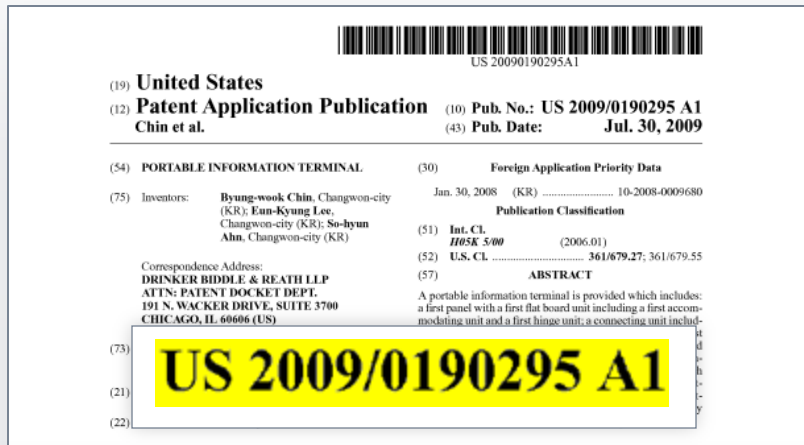
The Proposed Modification to Chin Would Add Input Options, Not Remove Them

1006, [0235]. A POSITA would have been motivated to add touch screen functionality to Chin (and in particular, the functionality to control the camera and take an image), to the extent any modification were deemed necessary, as a known technique to improve Chin's device by adding another input option that some users may have deemed desirable. Given the well-known and understood nature of this functionality as exemplified by the references discussed immediately above, a POSITA would have reasonably expected success in doing so as the modification would have just required programming Chin's device within the skill of a POSITA.

Ex. 1003, ¶ 254

GROUND S 1 & 2 **CHIN ANTICIPATION & OBVIOUSNESS**

Dr. Surati Confirms The "Design Principle" Concern Is Not Relevant



[0009] Also, if the portable information terminal is operated in a folded state so as not to externally expose the display apparatus, buttons disposed on a lateral surface of the display apparatus (or the second panel) are not externally exposed, and thus, are inaccessible which makes it difficult to operate the portable information terminal.



DR. SURATI

Q. This is describing a circumstance where the display apparatus is not externally exposed, correct?

A. Yep.

Q. Can you turn to Figure 5 of Chin.

A. (Reviewing) Yeah, I am looking at it.

Q. In Figure 5 of Chin, the second display unit 52 is externally exposed, right?

A. That's right.

Q. I[n] Figure 6 of Chin, the display unit 51 is externally exposed; is that right?

A. That's right.

GROUNDS 1 & 2 CHIN ANTICIPATION & OBVIOUSNESS

Chin Anticipates and/or Renders Obvious Claims 6, 7, 13, 17, 19, Limitation [16E]

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6. The method of claim 5, wherein, in the image capture mode, the device does not display an image on a first screen and displays a preview on a second screen.

7. The method of claim 5, wherein the first screen is disabled and does not receive user interface input while in the image capture mode.

13. The device of claim 11, wherein the image capture mode is one of a full and disabled mode, a full and static mode, or a full and live mode, wherein in the full and disabled mode, the first screen displays a preview of an image to be captured and the second screen is disabled, wherein in the full and static mode, the first screen displays a preview of an image to be captured and the second screen displays a static image, and wherein in the full and live mode, the first screen displays a first preview of an image to be captured and the second screen displays a second preview of the image to be captured.

16. A non-transitory computer readable medium having stored thereon computer-executable instructions, the computer executable instructions causing a processor of a device to execute a method for providing a user interface, the computer-executable instructions comprising:

instructions to receive user interface input to execute an image capture function;

instructions to determine one or more of an image capture function configuration, a device orientation, and a device state, wherein the device has at least first and second screens, wherein the device is in a closed state, wherein, in the closed state, the first and second screens face opposite directions, wherein the image capture function is configured to capture an outward-facing image, wherein the device is in a landscape orientation, and wherein an image capture lens is associated with the second screen;

based on one or more of the image capture function configuration, the device orientation, and the device state, instructions to enter one of one or more image capture modes, wherein in each image capture mode a display on the first or second screen is different, wherein the image capture mode is one of a full and disabled mode, a full and static mode, or a full and live mode.

GROUNDS 1 & 2 CHIN ANTICIPATION & OBVIOUSNESS

Chin Anticipates and/or Renders Obvious Claims 6, 7, 13, 17, 19, Limitation [16E]

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(12) **United States Patent**
 Sirpal et al.
 (10) **Patent No.:** US 8,836,842 B2
 (45) **Date of Patent:** *Sep. 16, 2014

(54) **CAPTURE MODE OUTWARD FACING MODES**
 (71) Applicant: Z124, George Town (KY)
 (72) Inventors: Sanjiv Sirpal, Oakville (CA);
 Mohammed Selim, Oakville (CA);
 John S. Vlasov, Gurnee (IL)
 (73) Assignee: Z124, George Town (KY)
 (*) Notice: Subject to any disclaimer, the term of this patent is 35 years from the date of first publication of the patent in the United States or 30 years from the date of issuance of the patent in the United States.

(58) **Field of Classification Search**
 H05K 5/04 (2013.01); G06F 1/1641 (2013.01);
 G06F 3/04883 (2013.01); H05K 13/00
 (2013.01); B25D 11/00673 (2013.01); G06F
 1/1647 (2013.01); G09G 5/34 (2013.01); G09G
 1/00 (2013.01); G06T 3/00 (2013.01); G06F
 3/1433 (2013.01); G06F 3/0412 (2013.01);
 G09G 5/00 (2013.01); G06F 3/01 (2013.01);
 G06F 3/048 (2013.01)

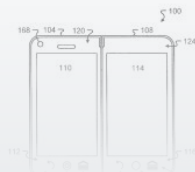
CAPTURE MODE OUTWARD FACING MODES

(60) Provisional application No. 61/539,884, filed on Sep. 27, 2011.
 (51) **Int. Cl.**
 H04N 5/222 (2006.01)
 G06F 1/16 (2006.01)
 (Continued)
 (52) **U.S. Cl.**
 CPC: G06F 9/44 (2013.01); G06F 1/1616
 (2013.01); H04M 1/0266 (2013.01); G06F
 3/1438 (2013.01); H05K 7/02 (2013.01); H05K
 5/0226 (2013.01); H05K 5/0017 (2013.01);
 G06F 3/041 (2013.01); H05K 13/046
 (2013.01); H05D 3/22 (2013.01); G06F 3/0483
 (2013.01); G02B 6/0001 (2013.01); H04N
 5/44591 (2013.01); G06F 1/1601 (2013.01);
 G06F 3/0481 (2013.01); G06F 3/0487
 (2013.01); G06F 3/1446 (2013.01); H05K
 7/1452 (2013.01); G06F 9/4443 (2013.01);

Google Image Result for Fujitsu Dual Screen Phone, published date unknown, retrieved Apr. 18, 2013, 1 page. Retrieved from: www.google.com/imgres?imgurl=http://www.computeriver.com/images/dual-screen-phone.jpg.
 (Continued)
 Primary Examiner — Tuan Ho
 (74) Attorney, Agent, or Firm — Sheridan Ross P.C.

(57) **ABSTRACT**
 Methods and devices for selectively presenting a user interface in a dual screen device. More particularly, the method includes a change in the display mode of a multiple screen device while the device is in an image capture mode. The device may present different information on the two screens based on several factors including the mode of the image capture feature, the orientation of the device, and/or the state of the device.

20 Claims, 38 Drawing Sheets



17. The non-transitory computer readable medium of claim 16, wherein in the full and disabled mode, the first screen displays a first preview of an image to be captured and the second screen is disabled, wherein in the full and static mode, the first screen displays a first preview of an image to be captured and the second screen is displays a static image, and wherein in the full and live mode, the first screen displays a first preview of an image to be captured and the second screen displays a second preview of the image to be captured.

19. The non-transitory computer readable medium of claim 17, wherein user interface input for the second screen is disabled.

GROUND 1 & 2

CHIN ANTICIPATION & OBVIOUSNESS

Chin Discloses a Device Where the First Screen Does Not Display an Image and the Second Screen Displays a Preview

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MOTOROLA MOBILITY LLC and
GOOGLE LLC
Petitioners,

v.

MULTIFOLD INTERNATIONAL INCORPORATED PTE. LTD.,
Patent Owner.

Case No. IPR2025-00038
U.S. Patent No. 8,836,842

DECLARATION OF JEFFREY J. RODRIGUEZ, PH.D. IN SUPPORT OF
PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,836,842

161. Chin does not, on the other hand, describe displaying an image on the other display unit, the “second display unit,” which serves as the claimed “first screen.”

162. A POSITA would have understood that absent any indication to the contrary, “the device does not display an image on a first screen.” Chin expressly identifies which display unit, first or second, displays a preview image in the first or second image capture modes (self-photographing or “outward-facing”). Ex. 1004, [0078]-[0079]. A POSITA would thus have understood that the other display unit, the one not displaying a preview, is *not* displaying an image.

Ex. 1003, ¶ 161-62

GROUNDS 1 & 2 CHIN ANTICIPATION & OBVIOUSNESS

Even If Not Explicitly Disclosed, Disabling the Non-Preview Screen Would Have Been Obvious

Chin does not require that the non-preview screen is turned on or displaying anything

A POSITA would understand Chin as disclosing **two options**: screen can be either **on or off**

A POSITA would be motivated to turn off the screen to save power and avoid unnecessary display

A POSITA would have found it obvious that the display on each screen changes between modes and would have been motivated to turn off or disable the screen that is not displaying the preview

ROADMAP

1 OVERVIEW

2 CONTESTED ISSUES

Chin (Anticipation and Obviousness)

- **Limitations [1E], [11H], [16D]:** “wherein in each image capture mode a display on the first or second screen is different”
- **Claim 10 and Limitation [11A]:** “wherein in one or more controls are presented on a second screen” and “the first screen including a first gesture capture region”
- **Claims 6, 7, 13, 17, 19, Limitation [16E]:** “wherein, in the image capture mode, the device does not display an image on a first screen and displays a preview on a second screen” and similar

Whitehorn (Anticipation and Obviousness)

- **Limitations [1E], [11H]:** “wherein in each image capture mode a display on the first or second screen is different”
- **Claims 6, 7:** “wherein, in the image capture mode, the device does not display an image on a first screen and displays a preview on a second screen” and similar
- **Limitation [11B]:** “wherein the second screen faces an opposite direction from the first screen when the device is closed, and wherein an image capture lens is associated with the second screen”
- **Claim 4:** “wherein the device is in a landscape or portrait orientation”

GROUNDS 3 & 4 WHITEHORN ANTICIPATION & OBVIOUSNESS

Whitehorn Anticipates and/or Renders Obvious Limitations [1E] and [11H]

US 8,836,842 B2

(12) **United States Patent**
Siral et al.

(10) **Patent No.:** US 8,836,842 B2
(45) **Date of Patent:** *Sep. 16, 2014

(54) **CAPTURE MODE OUTWARD FACING MODES**
(71) Applicant: Z124, George Town (KY)
(72) Inventors: Sanjiv Sirpal, Oakville (CA);
Muhammed Selim, Oakville (CA);
John S. Vondy, Cornsley (CA)
(73) Assignee: Z124, George Town (KY)
(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 41 days.
This patent is subject to a terminal disclaimer.

(21) Appl. No.: 13/627,498
(22) Filed: Sep. 26, 2012
(65) **Prior Publication Data**
US 2013/0076929 A1 Mar. 28, 2013

Related U.S. Application Data
(60) Provisional application No. 61/539,884, filed on Sep. 27, 2011.

(51) **Int. Cl.**
H04N 5/222 (2006.01)
G06F 1/16 (2006.01)
(Continued)

(52) **U.S. Cl.**
CPC — G06F 9/44 (2013.01); G06F 1/1616 (2013.01); H04N 1/0266 (2013.01); G06F 3/1438 (2013.01); H04N 7/02 (2013.01); H04N 5/0226 (2013.01); H04N 5/0077 (2013.01); G06F 1/0414 (2013.01); H04N 1/0406 (2013.01); E05D 3/12 (2013.01); G06F 3/0483 (2013.01); G02B 6/0001 (2013.01); H04N 5/44591 (2013.01); G06F 1/1601 (2013.01); G06F 3/0481 (2013.01); G06F 3/04897 (2013.01); G06F 3/1446 (2013.01); H04N 7/1452 (2013.01); G06F 9/4443 (2013.01);

H04N 5/04 (2013.01); G06F 1/1641 (2013.01); G06F 3/0483 (2013.01); H04N 1/00 (2013.01); H20D 11/00673 (2013.01); G06F 1/1647 (2013.01); G06F 3/14 (2013.01); G06F 1/00 (2013.01); G06F 3/00 (2013.01); G06F 3/1423 (2013.01); G06F 3/0412 (2013.01); G06F 3/00 (2013.01); G06F 3/01 (2013.01); G06F 3/048 (2013.01); 348/333.06; 348/333.05

(58) **Field of Classification Search**
CPC — H04N 5/22293
USPC — 348/333.01-333.13
See application file for complete search history.

(56) **References Cited**
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(Continued)

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Google Image Result for Fujitsu Dual Screen Phone, published date unknown, Retrieved Apr. 18, 2011, 1 page; Retrieved from: www.google.com/images/imgurl=http://www.computerlover.com/images/dual-screen-phone.jpg
(Continued)

Primary Examiner — Tuan Ho
(74) **Attorney, Agent, or Firm** — Sheridan Ross P.C.

(57) **ABSTRACT**
Methods and devices for selectively presenting a user interface in a dual screen device. More particularly, the method includes a change in the display mode of a multiple screen device while the device is in an image capture mode. The device may present different information on the two screens based on several factors including the mode of the image capture feature, the orientation of the device, and/or the state of the device.

20 Claims, 38 Drawing Sheets

1. A method, comprising:
providing a device having at least first and second screens;
receiving user interface input to execute an image capture function;
determining one or more of an image capture function configuration, a device orientation, and a device state;
and
based on one or more of the image capture function configuration, the device orientation, and the device state, entering one of one or more image capture modes, wherein in each image capture mode a display on the first or second screen is different.

GROUNDS 3 & 4
 WHITEHORN ANTICIPATION & OBVIOUSNESS

Whitehorn Anticipates and/or Renders Obvious Limitations [1E] and [11H]

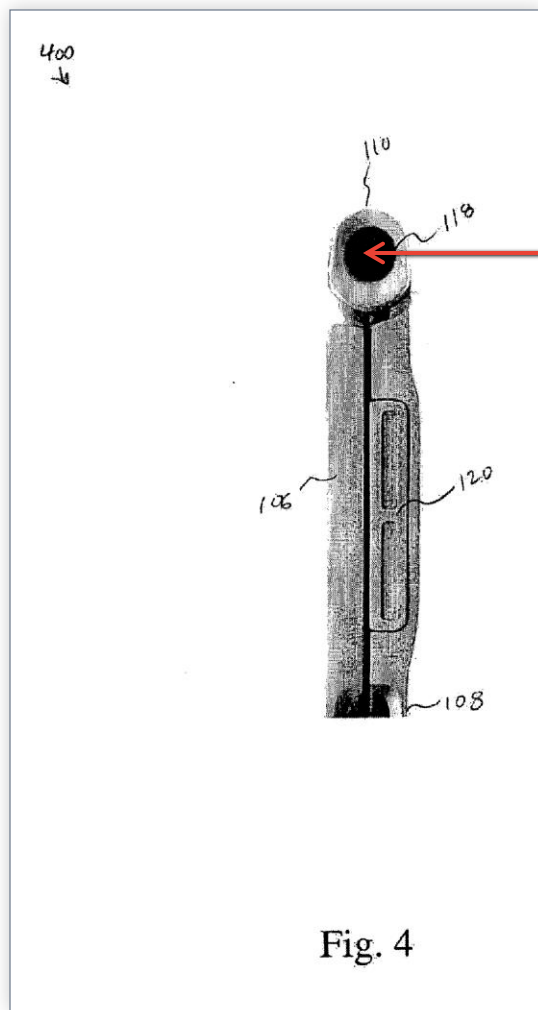


Fig. 4

Small screen interface 118
 Top cover 106 rotated closed and top large screen interface not visible

Petition, 66-68; Petitioners' Reply, 25-27

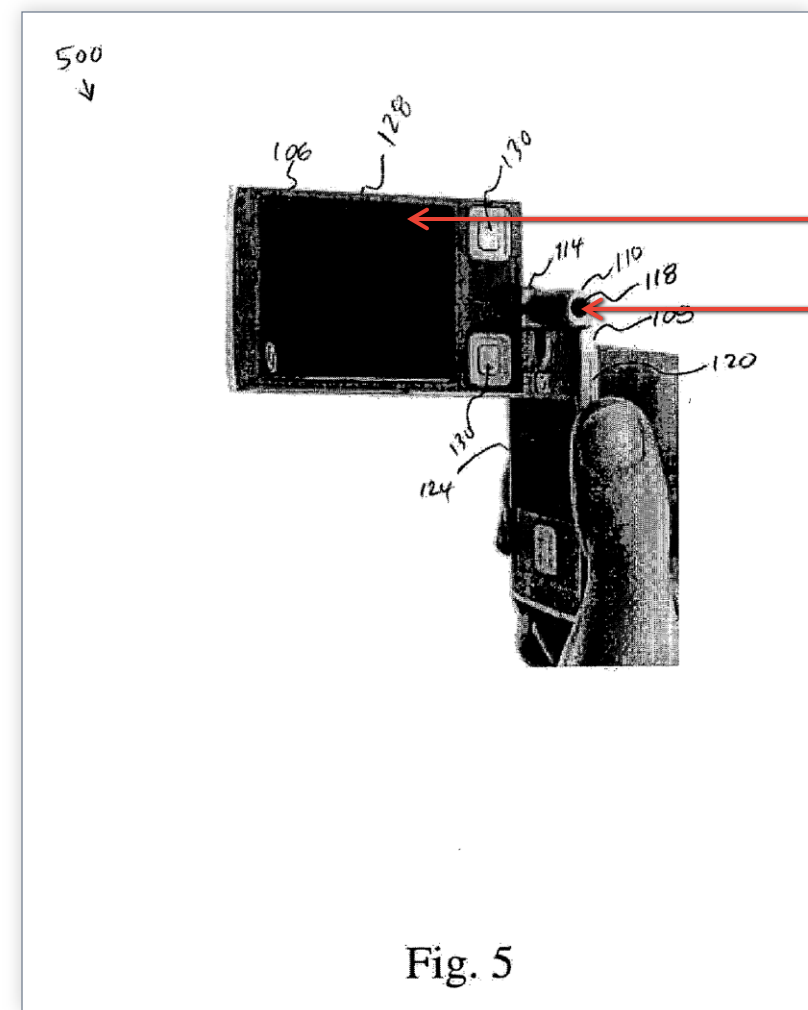


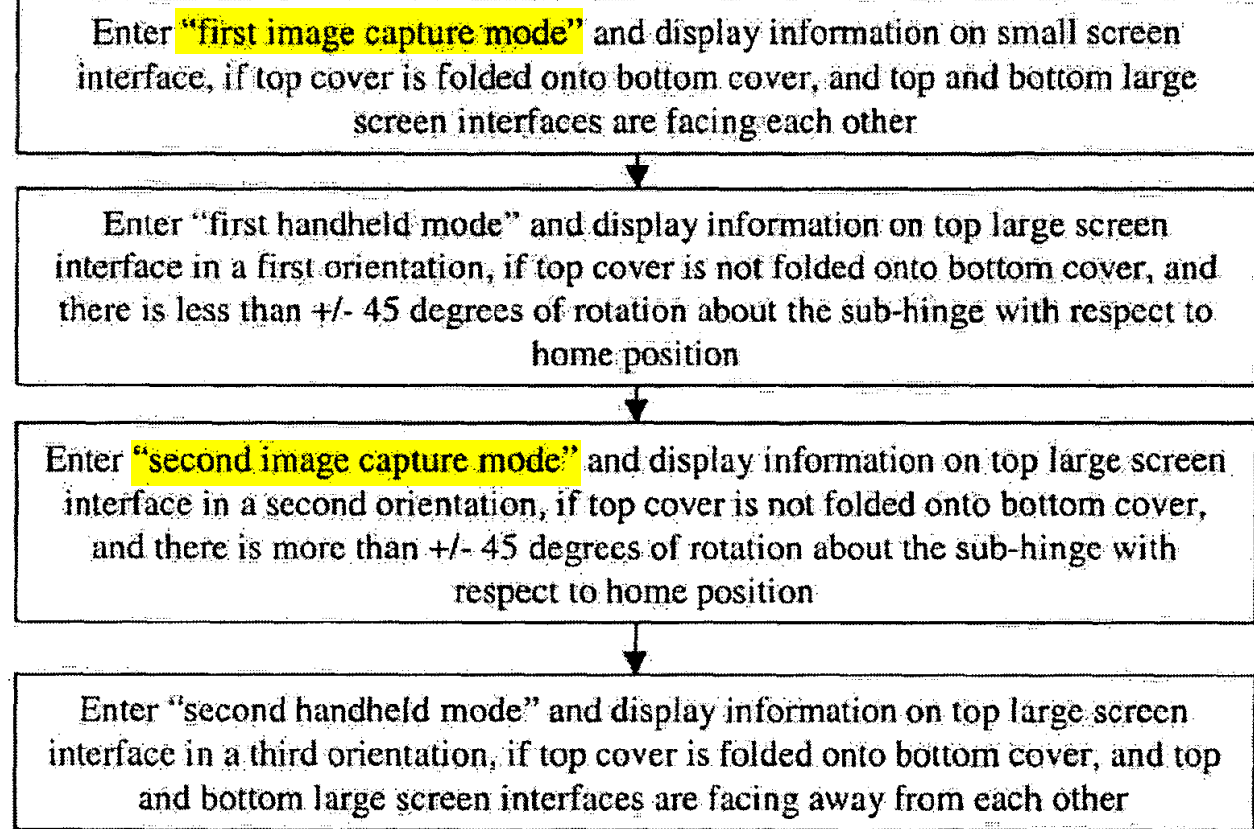
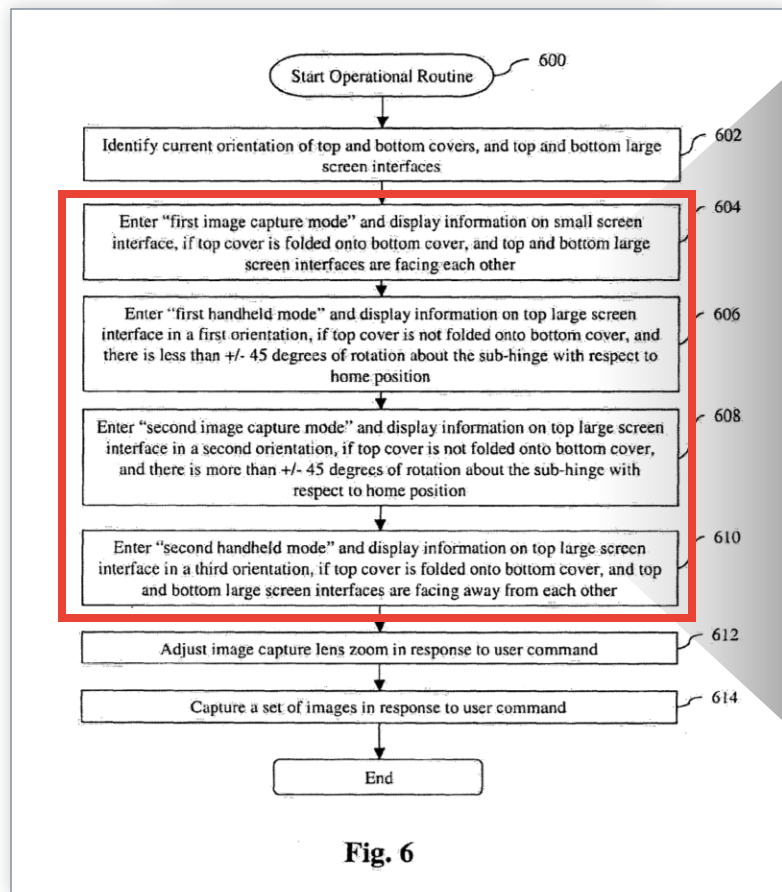
Fig. 5

Top large screen interface 128
 Small screen interface 118

GROUNDS 3 & 4 WHITEHORN ANTICIPATION & OBVIOUSNESS

Whitehorn Anticipates and/or Renders Obvious Limitations [1E] and [11H]

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GROUNDS 3 & 4 WHITEHORN ANTICIPATION & OBVIOUSNESS

Whitehorn's Display Changes for the "Convenience" of the User

US 2005/0078211 A1

[0027] Next in step 604, the device 102 enters a “first image capture mode” and displays information on the small screen interface 118, if the top cover 106 is folded onto bottom cover 108, and top and bottom large screen interfaces 128 and 124 are facing each other. FIGS. 1, 3 and 4 show the device in the “first image capture mode.” In this mode, users are capturing images with the image capture device 116 while looking through the small screen interface 118 at what is being captured. Users may prefer this mode out of convenience or due to bright lighting conditions which would otherwise obscure images displayed on one of the large screen interfaces 124 and 128.

Ex. 1005, [0027]

[0029] In step 608, the device 102 enters a “second image capture mode” and displays information on the top large screen interface 128 in a second (preferably landscape) orientation, if top cover 106 is not folded onto bottom cover 108, and there is more than ± 45 degrees of rotation about the sub-hinge 114 with respect to the home position. FIG. 5 shows the device in the “second image capture mode” after the top cover 106 as been rotated approximately 90 degrees about the sub-hinge 114. In this mode, users are capturing images with the image capture device 116 while looking through the top large screen interface 128 at what is being captured. Users may prefer this mode when viewing images on the top large screen interface 128 would be more convenient than viewing them on the small screen interface 118.

Ex. 1005, [0029]

GROUNDS 3 & 4 WHITEHORN ANTICIPATION & OBVIOUSNESS

Multifold Offers the Same Incorrect Arguments as it Did for Chin

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

MOTOROLA MOBILITY LLC AND GOOGLE LLC,

Petitioners,

v.

MULTIFOLD INTERNATIONAL INC. PTE. LTD.,

Patent Owner

Case No. IPR2025-00038

U.S. Patent No. 8,836,842

PATENT OWNER RESPONSE
PURSUANT TO 37 C.F.R. § 42.120

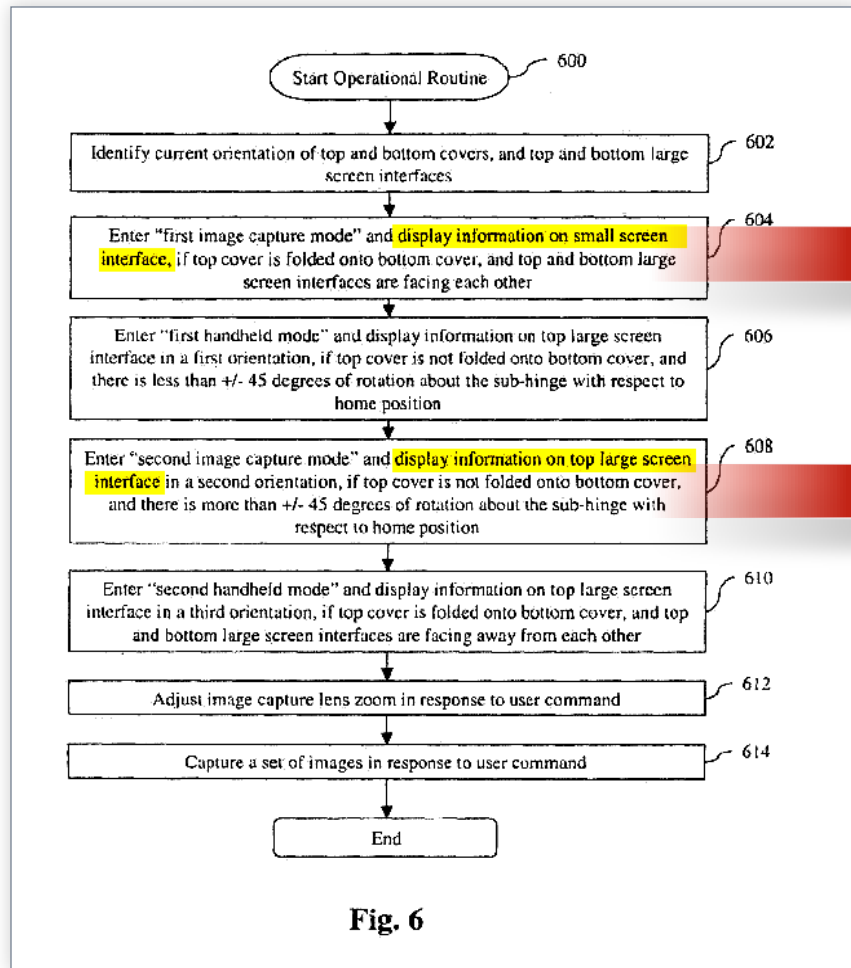
To summarize, Petitioners point out that in the second image capture mode the top large screen 128 will display a preview. Pet., 67-68 (citing Whitehorn, [0029] (top large screen 128 displays “what is being captured”). However, Whitehorn does not anticipate limitation 1E because there is no express (or inherent) disclosure that in the first image capture mode the top large screen 128 provides no display, as alleged. Thus, there is no disclosure that top screen 128 provides a different display in the first and second alleged image capture modes to meet limitation 1E. Surati Decl., ¶ 221. Without evidence that the display of top screen 128 changes (as opposed to always showing a preview), Petitioners are conflating changes in the device state/orientation with changes to the claimed image capture mode (which requires that a display on the first screen or second screen is different).¹¹

PO Resp., 65-66

GROUNDS 3 & 4 WHITEHORN ANTICIPATION & OBVIOUSNESS

The Results of Multifold's Arguments Are Illogical

US 2005/0078211 A1



Enter "first image capture mode" and display information on **small screen interface and top large screen interface**, if top cover is folded onto bottom cover, and top and bottom large screen interfaces are facing each other

Enter "second image capture mode" and display information on **small screen interface and top large screen interface** in a second orientation, if top cover is not folded onto bottom cover, and there is more than +/- 45 degrees of rotation about the sub-hinge with respect to home position

GROUNDS 3 & 4

WHITEHORN ANTICIPATION & OBVIOUSNESS

Even If Not Explicitly Disclosed, Disabling the Non-Preview Screen Would Have Been Obvious

Whitehorn does not require that the non-preview screen is turned on or displaying anything

A POSITA would understand Whitehorn as disclosing **two options**: screen can be either **on or off**

A POSITA would be motivated to turn off the screen to save power and avoid unnecessary display

A POSITA would have found it obvious that the display on each screen changes between modes and would have been motivated to turn off or disable the screen that is not displaying the preview

GROUNDS 3 & 4 UNDISPUTED FACTS

A POSITA Would Understand Whitehorn as Disclosing Two Options: the Screen Can be Either On or Off

DR. RODRIGUEZ

375. Whitehorn teaches in the first image capture mode that “the top cover 106 is folded onto bottom cover 108, and top and bottom large screen interfaces 128 and 124 are facing each other” and shows the device as closed with the top large screen interface 128 not visible. Ex. 1005, [0027], Fig. 3. A POSITA at least would have found it obvious that the top large screen interface 128 is not displaying anything and is turned off, and thus the display is different from the second image capture mode which displays the image being captured. Indeed, a POSITA would have understood that a screen would have one of two states: either on or off. Accordingly, a POSITA obviously would have had a design choice between those two states when designing a device according to Whitehorn’s teachings.

Ex. 1003, ¶ 375

DR. SURATI

Q. In this first image capture mode, the top large screen is folded over so that it’s not visible to the user, right?

A. That’s correct.

Q. So the top large screen in the first image capture mode could be displaying something or not.

These are the two options, right?

A. That’s right.

Ex. 1015, 68:1-10

GROUNDS 3 & 4 UNDISPUTED FACTS

Whitehorn *Expressly* Teaches That a POSITA Would Have Known to Modify the Displays**US 2005/0078211 A1**

[0031] Those skilled in the art will know that the values given for degrees of rotation, home position, image orientation, and information displayed and/or received on the screen interfaces, as discussed herein are preferred but not required. Other embodiments of the present invention may vary these elements to fit any particular design. Such other embodiments can perhaps include replacing the “second handheld mode” in step 610 with a “simultaneous handheld and image capture mode” which displays information on both the top large screen interface 128 and the small screen interface 118, when the top cover 106 is folded onto the bottom cover 108, and the top and bottom large screen interfaces 128 and 124 are facing away from each other.

Ex. 1005, [0031]

DR. SURATI

Q. Do you see that?

A. I see that.

Q. Do you have any basis to disagree with that statement?

A. Not at this time.

Q. You understand Whitehorn is teaching that those skilled in the art might vary the information displayed on the screen as compared to the embodiments that are explicitly disclosed?

A. I understand that.

Ex. 1015, 78:11-21

GROUND 3 & 4 WHITEHORN ANTICIPATION & OBVIOUSNESS

Whitehorn Expressly Teaches That a POSITA Would Have Known to Modify the Displays

DR. SURATI

Q. You understand Whitehorn is teaching that those skilled in the art might vary the information displayed on the screen as compared to the embodiments that are explicitly disclosed?

A. I understand that.

Q. You understand Whitehorn is teaching that the device might be modified to either display or not display information on a particular screen?

A. I don't think that I teaches that, but it certainly allows for that.

Ex. 1015, 78:16-79:8 (objection omitted)

GROUNDS 3 & 4 WHITEHORN ANTICIPATION & OBVIOUSNESS

Whitehorn Anticipates and/or Renders Obvious Claims 6, 7

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6. The method of claim 5, wherein, in the image capture mode, the device does not display an image on a first screen and displays a preview on a second screen.

7. The method of claim 5, wherein the first screen is disabled and does not receive user interface input while in the image capture mode.

DR. RODRIGUEZ

323. A POSITA would have understood from Whitehorn's disclosure and expect that when the device is in a first image capture mode, the top large screen interface 128 would not display an image, be enabled, or receive user input because it is neither visible nor accessible to the user. Configuring the device for any of this functionality when the screen is not visible or accessible would serve no purpose.

Ex. 1003, ¶ 323

GROUNDS 3 & 4 WHITEHORN ANTICIPATION & OBVIOUSNESS

Whitehorn Anticipates and/or Renders Obvious Limitation [11B]

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(12) **United States Patent**
 Sirpal et al.

(10) **Patent No.:** US 8,836,842 B2
 (45) **Date of Patent:** *Sep. 16, 2014

(54) **CAPTURE MODE OUTWARD FACING MODES**
 (71) Applicant: Z124, George Town (KY)
 (72) Inventors: Sanjiv Sirpal, Oakville (CA); Mohammed Selim, Oakville (CA); John S. Vlosky, Cornsley (CA)
 (73) Assignee: Z124, George Town (KY)
 (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 41 days. This patent is subject to a terminal disclaimer.

(21) Appl. No.: 13/627,498
 (22) Filed: Sep. 26, 2012
 (65) **Prior Publication Data**
 US 2013/0076929 A1 Mar. 28, 2013

Related U.S. Application Data
 (60) Provisional application No. 61/539,884, filed on Sep. 27, 2011.

(51) **Int. Cl.**
 H04N 5/222 (2006.01)
 G06F 1/16 (2006.01)
 (Continued)

(52) **U.S. CL.**
 CPC: G06F 9/04 (2013.01); G06F 1/1616 (2013.01); H04M 1/0266 (2013.01); G06F 3/1418 (2013.01); H05K 7/02 (2013.01); H05K 5/0216 (2013.01); H05K 5/0017 (2013.01); G06F 9/041 (2013.01); H05K 1/0046 (2013.01); H05K 3/12 (2013.01); G06F 3/0481 (2013.01); G06F 3/0482 (2013.01); H04N 5/44591 (2013.01); G06F 1/1601 (2013.01); G06F 3/0481 (2013.01); G06F 3/04897 (2013.01); G06F 3/1446 (2013.01); H05K 7/1452 (2013.01); G06F 9/4443 (2013.01);

(58) **Field of Classification Search**
 USPC: 348/333.06; 348/333.05
 CPC: H04N 5/23293
 USPC: 348/333.01-333.13
 See application file for complete search history.

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 (Continued)
 Primary Examiner — Tuan Ho
 (74) Attorney, Agent, or Firm — Sheridan Ross PC.

(57) **ABSTRACT**
 Methods and devices for selectively presenting a user interface in a dual screen device. More particularly, the method includes a change in the display mode of a multiple screen device while the device is in an image capture mode. The device may present different information on the two screens based on several factors including the mode of the image capture feature, the orientation of the device, and/or the state of the device.

20 Claims, 38 Drawing Sheets



11. A device, comprising:
 a first screen, the first screen including a first gesture capture region;
 a second screen, wherein the second screen faces an opposite direction from the first screen when the device is closed, and wherein an image capture lens is associated with the second screen;
 a memory;
 a processor in communication with the memory, the first screen, and the second screen, the processor operable to:
 receive user interface input to execute an image capture function;
 determine one or more of an image capture function configuration, a device orientation, and a device state;
 based on one or more of the image capture function configuration, the device orientation, and the device state, enter one of one or more image capture modes, wherein in each image capture mode a display on the first or second screen is different.

Ex. 1001

GROUNDS 3 & 4 WHITEHORN ANTICIPATION & OBVIOUSNESS

Limitation [11B] Imposes Two Separate 'Wherein' Requirements on the Second Screen – Both Met by Whitehorn

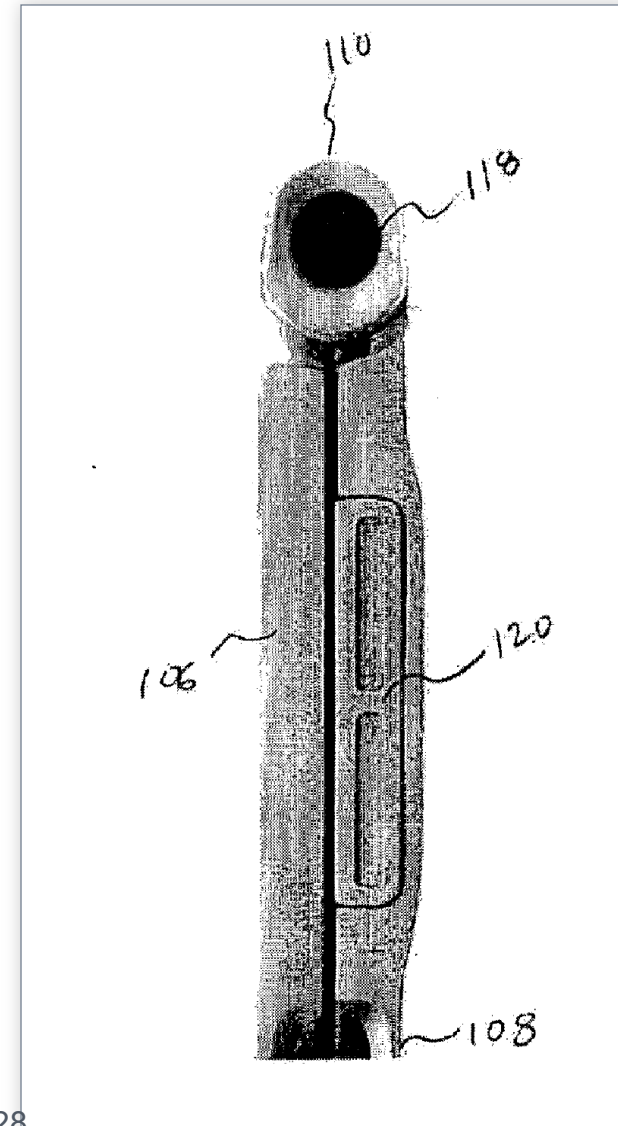
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11. A device, comprising:
a first screen, the first screen including a first gesture capture region;
a second screen, wherein the second screen faces an opposite direction from the first screen when the device is closed, and wherein an image capture lens is associated with the second screen;
a memory;
a processor in communication with the memory, the first screen, and the second screen, the processor operable to:
receive user interface input to execute an image capture function;
determine one or more of an image capture function configuration, a device orientation, and a device state;
based on one or more of the image capture function configuration, the device orientation, and the device state, enter one of one or more image capture modes, wherein in each image capture mode a display on the first or second screen is different.

Ex. 1001

Petition, 76-77, Petitioners' Reply 27-28

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE



Ex. 1005, Fig. 4

GROUNDS 3 & 4 WHITEHORN ANTICIPATION & OBVIOUSNESS

Limitation [11B] Imposes Two Separate 'Wherein' Requirements on the Second Screen – Both Met by Whitehorn

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11. A device, comprising:
 a first screen, the first screen including a first gesture capture region;
 a second screen, wherein the second screen faces an opposite direction from the first screen when the device is closed, and wherein an image capture lens is associated with the second screen;
 a memory;
 a processor in communication with the memory, the first screen, and the second screen, the processor operable to:
 receive user interface input to execute an image capture function;
 determine one or more of an image capture function configuration, a device orientation, and a device state;
 based on one or more of the image capture function configuration, the device orientation, and the device state, enter one of one or more image capture modes, wherein in each image capture mode a display on the first or second screen is different.

Ex. 1001

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[0029] In step 608, the device 102 enters a "second image capture mode" and displays information on the top large screen interface 128 in a second (preferably landscape) orientation, if top cover 106 is not folded onto bottom cover 108, and there is more than ± 45 degrees of rotation about the sub-hinge 114 with respect to the home position. FIG. 5 shows the device in the "second image capture mode" after the top cover 106 as been rotated approximately 90 degrees about the sub-hinge 114. In this mode, users are capturing images with the image capture device 116 while looking through the top large screen interface 128 at what is being captured. Users may prefer this mode when viewing images on the top large screen interface 128 would be more convenient than viewing them on the small screen interface 118.

Ex. 1005, [0029]

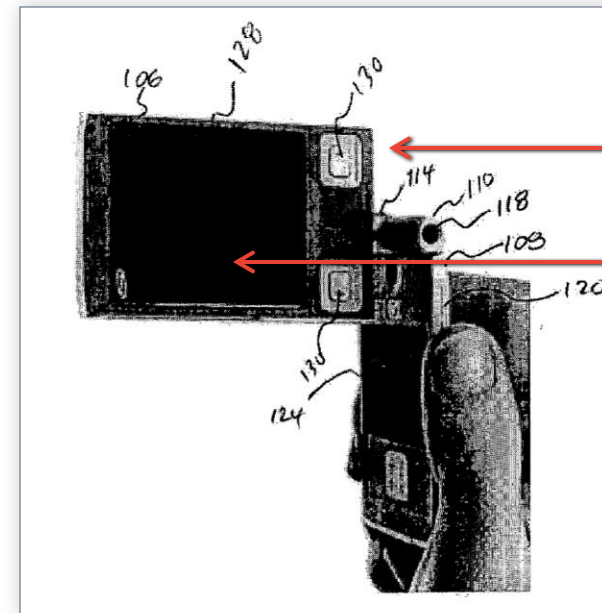


Image capture device 116, not pictured (claimed "image capture lens")

Top large screen interface 128 (claimed "second screen")

Petition, 76-77, Petitioners' Reply 27-28

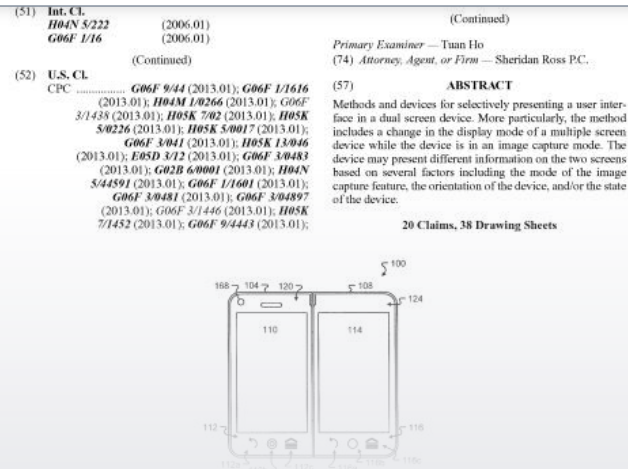
GROUND S 3 & 4

WHITEHORN ANTICIPATION & OBVIOUSNESS

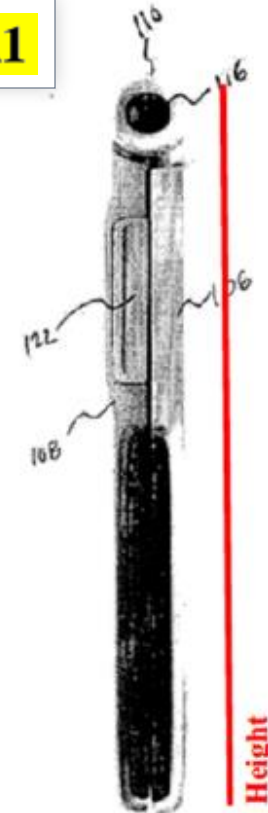
Whitehorn Anticipates and/or Renders Obvious Claim 4



4. The method of claim 3, wherein the **device** is in a landscape or portrait orientation.



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Width
 Height
 Fig. 3

GROUNDS 3 & 4 WHITEHORN ANTICIPATION & OBVIOUSNESS

Multifold's Argument Rests on a Too-Late and Incorrect Claim Construction

Case IPR2025-00038
Patent 8,836,842

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MOTOROLA MOBILITY LLC and GOOGLE LLC.
Petitioners,

v.

MULTIFOLD INTERNATIONAL INCORPORATED PTE. LTD.
Patent Owner.

Case IPR2025-00038
U.S. Patent No. 8,836,842

PATENT OWNER SUR-REPLY



**MULTIFOLD IS IMPROPERLY TRYING
TO REDEFINE “DEVICE” AS “DISPLAY”**

patent. '842 Patent, 3:28-30. The Reply also argues that Claim 4 refers to the “device” in a portrait mode, not a display in a portrait mode. Reply, 29-30. However, a POSITA would readily recognize that Claim 4 is referring to a device with a display in the portrait (or landscape) mode, particularly in view of the definitional language in the '842 Patent.

Google



motorola