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Paper No. 10
Entered: August 5, 2019

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

FIRSTFACE CO., LTD.,
Patent Owner.

Case IPR2019-00613
Patent 9,633,373 B2

Before JUSTIN T. ARBES, MELISSA A. HAAPALA, and RUSSEL E. CASS, *Administrative Patent Judges*.

HAAPALA, *Administrative Patent Judge*.

DECISION
Institution of *Inter Partes* Review
37 C.F.R. § 42.108

Apple Inc. ("Petitioner") filed a Petition pursuant to 35 U.S.C. §§ 311–319 to institute an *inter partes* review of claims 1, 2, 4–6, and 11–14 of U.S. Patent No. 9,633,373 B2 ("the '373 patent"). Paper 2 ("Pet."). Firstface Co., Ltd. ("Patent Owner") filed a Preliminary Response. Paper 8 ("Prelim. Resp."). Applying the standard set forth in 35 U.S.C. § 314(a), which requires demonstration of a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim, we grant Petitioner's request and institute an *inter partes* review of all challenged claims.[1]

I. BACKGROUND

A. The '373 Patent (Ex. 1001)

The '373 patent describes a method and mobile communication terminal for performing a specific function when a mobile communication terminal is activated. Ex. 1001, 1:16–18. Figure 1 of the '373 patent is reproduced below.

[1] Although we granted Petitioner's motion to seal certain exhibits filed with the Petition (Paper 9), we do not refer to any sealed material in this Decision.

FIG. 1

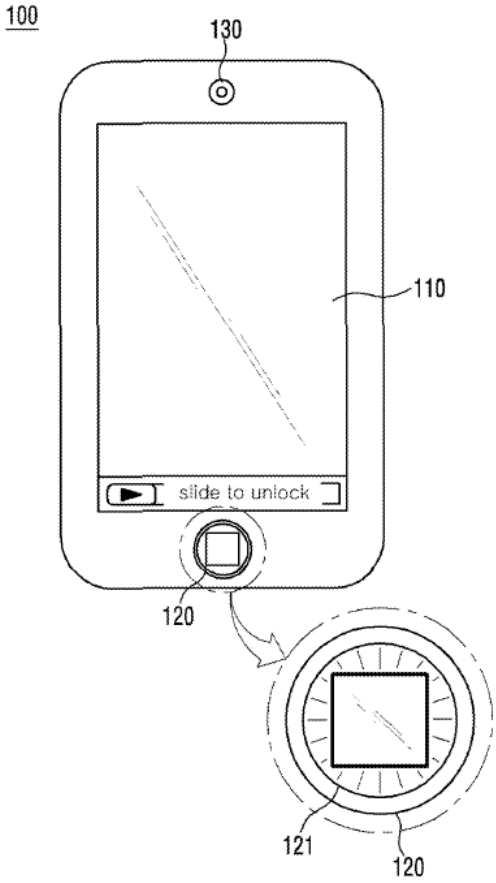


Figure 1 illustrates an external appearance of mobile communication terminal 100. *Id.* at 3:42–44. Mobile communication terminal 100 includes display unit 110 and activation button 120. *Id.* at 3:45–47. Display unit 110 displays various information regarding operation states of mobile communication terminal 100. *Id.* at 3:64–66. Activation button 120 switches mobile communication terminal 100 from an inactive state (in which the terminal is communicable but the display screen is turned off) to an active state (in which the display screen is turned on). *Id.* at 3:21–23, 3:32–37, 4:22–24.

If the user presses activation button 120 when mobile communication terminal 100 is in the inactive state, mobile communication terminal 100

performs a predetermined operation in addition to switching to the active state. *Id.* at 4:36–40. Example operations that can be performed include camera activation, user authentication (e.g., fingerprint recognition), and operation of a music player. *See id.* at 5:51–63, 7:18–8:20, 10:1–8.

The user can set the operation to be performed when the activation button is pressed. *Id.* at 4:51–53. Different operations can be set to be performed according to the number of presses or a press time of activation button 120; for example, a first operation can be performed if activation button 120 is pressed for a short time and a second operation can be set to be performed if activation button 120 is pressed for a long time. *See id.* at 4:57–5:2.

B. Illustrative Claim

Claims 1 and 11 are independent claims. Claim 1 is illustrative of the subject matter at issue:[2]

> 1. A mobile communication terminal comprising:
>
> a touch screen display;
>
> a camera;
>
> a power button configured to turn on and off the terminal by pressing; and
>
> an activation button separate from the power button and located outside the touch screen display, the activation button configured for pressing to turn on the touch screen display and to initiate one or more additional functions of the terminal,
>
> wherein the terminal has a first function and a second function to perform in response to user input via the activation button and is configured to provide user settings for configuring at least one of the first and second functions such that at least one of the first and second functions is set to be performed in addition

[2] Claims 1 and 11 were corrected in a certificate of correction dated June 27, 2017. Ex. 1001.

to turning on the touch screen display upon pressing of the activation button while the touch screen display is turned off, wherein the first and second functions are different from each other and selected from the group consisting of fingerprint authentication, activating the camera, playing music and a hands-free function,

wherein upon one-time pressing of the activation button while the touch screen display is turned off, the terminal is configured to turn on the touch screen display and further perform at least one of the first and second functions in addition to turning on the touch screen display such that:

a lock screen is displayed on the touch screen display upon turning on the touch screen display in response to the one-time pressing of the activation button while the touch screen display is turned off,

in response to the one-time pressing of the activation button, the first function is performed in addition to turning on the touch screen display for displaying the lock screen thereon, and

the second function is performed when the one-time pressing is for long time longer than a reference time period,

wherein at least one of the first and second functions is performed subsequent to turning on the touch screen display and displaying the lock screen in response to the one-time pressing of the activation button,

wherein the touch screen display displays the lock screen when at least one of the first and second functions is being performed.

C. References

Petitioner relies on the following references:

1. Apple iPhone OS 3.1 User Guide (Sept. 2009) ("iOS") (Ex. 1007).
2. U.S. Patent Application Pub. No. 2010/0017872, published Jan. 21, 2010 ("Goertz") (Ex. 1013).

3. U.S. Patent Application Pub. No. 2010/0138914, published June 3, 2010 ("Davis") (Ex. 1015).
4. U.S. Patent Application Pub. No. 2012/0133484, published May 31, 2012 ("Griffin") (Ex. 1027).

Petitioner further relies on testimony of its declarant, Benjamin B. Bederson, Ph.D. (Ex. 1003).

D. Grounds Asserted

Petitioner challenges the patentability of the claims of the '373 patent under 35 U.S.C. § 103(a) over the following combinations of references:

References	Claims
Griffin, Davis, and iOS	1, 2, 4–6, 11–14
Goertz, Davis, and iOS	1, 2, 4–6, 11–14

E. Related Proceedings

Petitioner and Patent Owner identify the following district court litigation involving the '373 patent: *Firstface Co., Ltd. v. Apple Inc.*, Case No. 3-18-cv-02245 (N.D. Cal.). Pet. 2–3; Paper 3, 2.

II. ANALYSIS

A. Claim Construction

In an *inter partes* review for a petition filed on or after November 13, 2018, claims of a patent shall be construed using the same claim construction standard that would be used to construe the claims in a civil action under 35 U.S.C. § 282(b), including construing the claims in accordance with the ordinary and customary meaning of such claims as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. 37 C.F.R. § 42.100(b) (2018); *see* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Oct. 11,

2018) (amending 37 C.F.R. § 42.100(b) effective November 13, 2018); *see also Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005).

Neither party propose constructions for any of the claim terms. Pet. 12; Prelim. Resp. 6. For purposes of this Decision, we do not find it necessary to construe any terms. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (holding that "we need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy,'" (citation omitted)).

B. Obviousness over Griffin, Davis, and iOS

Petitioner contends that claims 1, 2, 4–6, and 11–14 are unpatentable as obvious under 35 U.S.C. § 103(a) over Griffin, Davis, and iOS. Pet. 13–52.

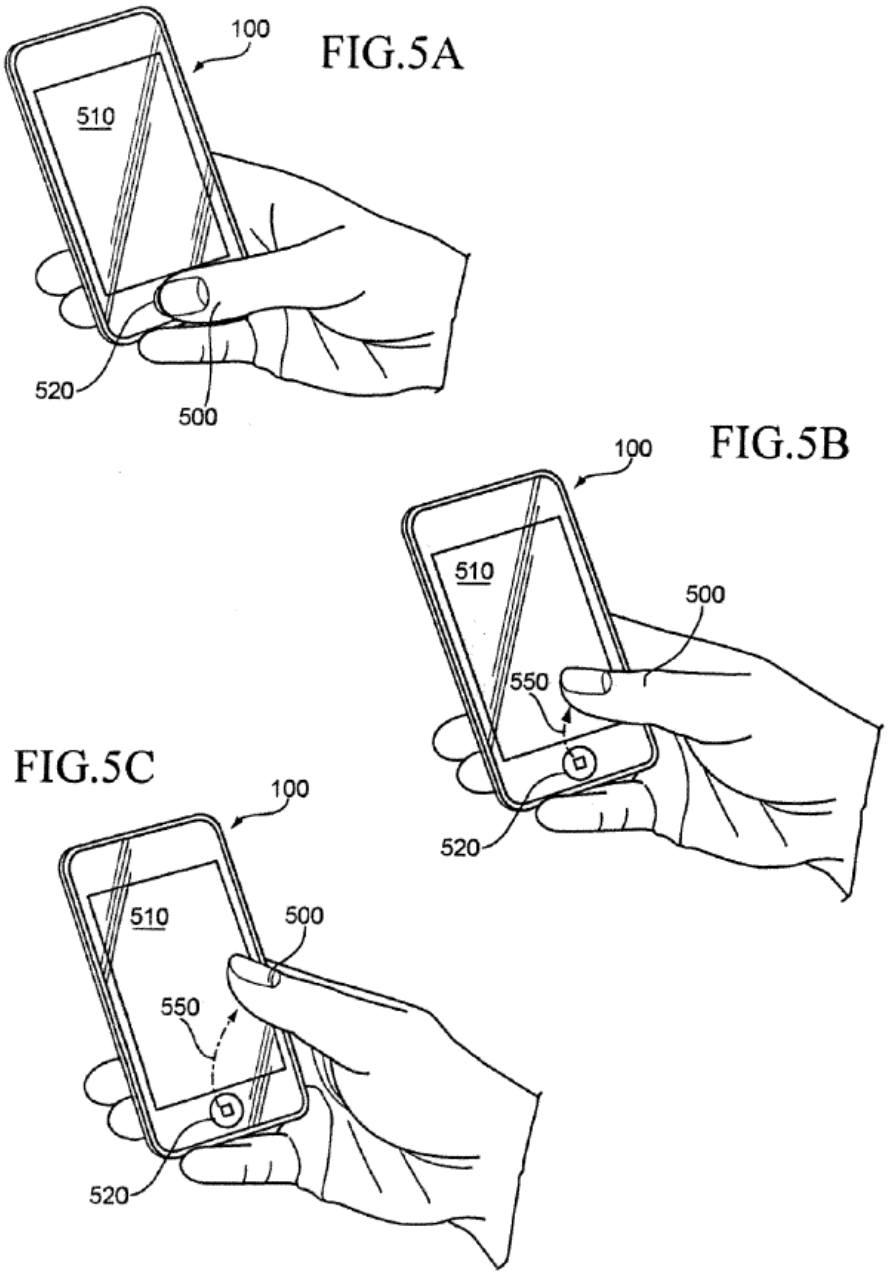
1. Overview of Griffin

Griffin describes an electronic device configured to transition between a locked and unlocked state in response to a detected action. Ex. 1027, Abstract. A locked state includes a "sleep" mode in which certain functions of the device (such as a display) are halted, and a secure or "screen lock" mode in which a user interface for a user to enter credentials is displayed to allow a user to transition to an unlocked state. *Id.* ¶¶ 25–27. An unlocked state includes an awake mode (or insecure mode) where the user input interfaces, stored data, and other functionality of the device are generally all available. *Id.* ¶ 27.

The device is unlocked in response to a single, continuous unlock action applied to at least two input mechanisms on the electronic device. *Id.* ¶ 31. In response to activation of a first user input, which remains active during the locked state, a second user input interface is activated and a timer is started. *Id.* ¶ 121. The device then awaits input at the second input

mechanism. *Id.* If the correct input is received within the predetermined period, the device is unlocked. *Id.* ¶ 122.

Figures 5A, 5B, and 5C of Griffin are depicted below.



Figures 5A, 5B, and 5C illustrate a single-gesture or continuous-action input as it is implemented on a handheld mobile device, such as a smartphone equipped with touchscreen display 510. *Id.* ¶ 86. Device 100 has a single

"home" button or convenience button 520, positioned at the center along an edge of display 510. *Id.* As illustrated in Figure 5A, user's thumb 500 depresses convenience button 520, which initiates an unlock action. *Id*. Upon detection of the input at convenience button 520, the device activates the second input, in this case touchscreen display 110, so that display 110 is capable of detecting further input from the user. *Id*. ¶ 87. Figures 5B and 5C illustrate user's thumb 500 travelling in an arcuate path 550 along touchscreen display 510. *Id.* Arc 550 traced along touchscreen display 510 completes the unlock action, upon which device 100 enters the unlocked state. *Id*. Thus, the unlock action comprises detecting two distinct user inputs applied to two components (initiation at convenience button 520 and arc 550 traced on touchscreen display 510), which is carried out as a substantially continuous action by the user. *Id.*

2. Overview of Davis

Davis describes a system and method of launching applications on a device using biometric authentication. Ex. 1015 ¶ 1. Davis explains that a mobile device may automatically enter into a user-inactive mode after a period of inactivity, or a user may specifically select a menu item on the device to enter into the user-inactive mode (i.e., to lock the device). *Id.* ¶ 45. Various security measures may be required to unlock the mobile device, such as passwords, a smart card, or biometric authentication. *See id.* ¶¶ 46–47.

Figure 4 of Davis is depicted below.

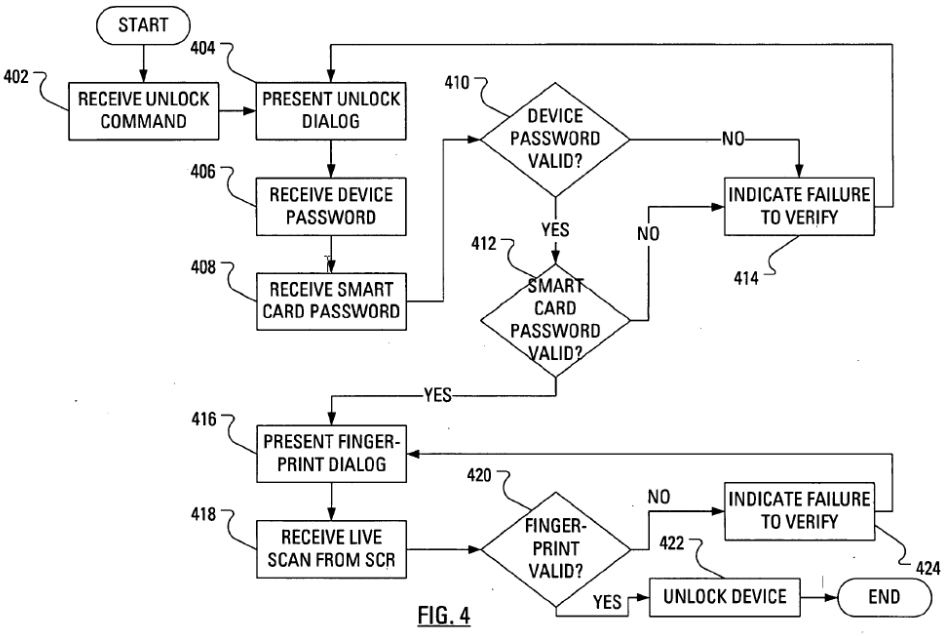
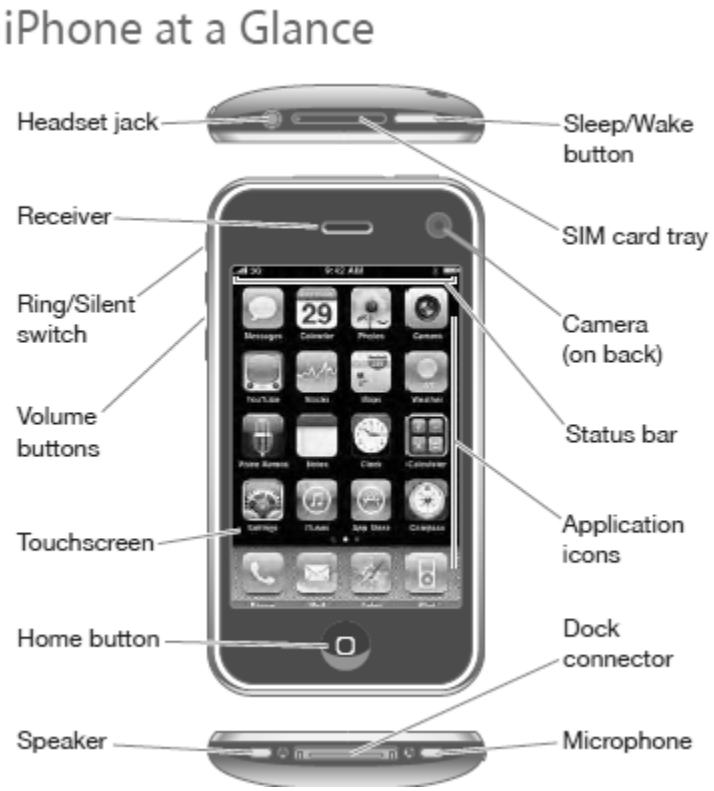


FIG. 4

Figure 4 illustrates steps in an example method of maintaining secure access to a mobile device. *Id.* ¶ 47. The mobile device first receives an "unlock" command (step 402). *Id.* ¶ 48. Next, the mobile device presents an unlock dialog on a display to prompt the user to enter authentication factors, such as a device password and/or smart card password (step 404). *Id.* The mobile device then receives and verifies the device and smart code passwords (steps 406–412). *Id.* ¶ 49–50. At step 416, the mobile device presents a dialog on the display to prompt the user to provide a fingerprint candidate or other type of biometric data. *Id.* ¶ 52. The mobile device then receives and verifies the fingerprint candidate or other biometric data (steps 418–420). *Id.* ¶ 53. If the fingerprint candidate matches a stored fingerprint template, the mobile device unlocks itself; if the fingerprint candidate does not match, the mobile device presents a fingerprint verification failure dialog and returns to step 416 to present the prompt to the user to provide a fingerprint (steps 422–424). *Id.*

3. Overview of iOS

iOS is a user guide for iPhone OS 3.1 software. Ex. 1007, 1. iOS includes a diagram of an iPhone, which is reproduced below.



The reproduced diagram above depicts an iPhone. *Id.* at 20. The iPhone includes a home button that, when pressed, causes the iPhone to display a home screen that contains the iPhone applications. *Id.* at 23. The iPhone also includes a sleep/wake button that allows the user to lock the iPhone. *Id.* at 26. When the iPhone is locked, nothing happens if the user touches the screen. *Id.* The iPhone can be unlocked by pressing the home button or the sleep/wake button, in combination with dragging a slider. *Id.* at 27.

4. Claim 1

Petitioner asserts the combination of Griffin, Davis, and iOS teaches the limitations recited in claim 1. Pet. 13–43. In particular, Petitioner relies on Griffin to disclose most of the limitations of claim 1. *See generally id.*

Petitioner relies on the combination of Griffin and Davis to disclose the display and timing requirements and on the combination of Griffin, Davis and iOS to teach the mobile device functions. *See id.* at 16–27. A more detailed analysis of Petitioner's assertions for specific limitations, and Patent Owner's response, is set forth below.

> *a. "an activation button separate from the power button and located outside the touch screen display, the activation button configured for pressing to turn on the touch screen display and to initiate one or more additional functions of the terminal"*
>
> *"wherein the terminal has a first function and a second function to perform in response to user input via the activation button . . . wherein the first and second functions are different from each other and selected from the group consisting of fingerprint authentication, activating the camera, and fingerprint authentication, activating the camera, playing music and a hands-free function"*

Petitioner asserts Griffin discloses an activation button (home or convenience button) located outside the touch screen display. Pet. 31–32. Petitioner asserts iOS teaches a power button (sleep/wake) separate from an activation button (home button). *Id.* at 32. Petitioner further asserts Griffin discloses the activation button configured for pressing to turn on the touch screen display and to initiate one or more additional functions of the terminal. *Id.* at 33–34. Additionally, Petitioner asserts that Griffin discloses that after user input via the activation button to initiate the unlock action, a first function is performed (a second user input interface is activated). *Id.* at 34. Petitioner asserts Davis teaches performing a first function (fingerprint authentication) in response to an unlock command. *Id.* at 35–37. Thus, Petitioner asserts Griffin, as modified by the teachings of Davis, teaches a user presses the home/convenience button (activation button), which initiates

an unlock command and wakes the screen to display a fingerprint dialog (lock screen) and the second input mechanism is activated (fingerprint unlock function, including scanning a fingerprint). *Id.* at 18. Petitioner asserts iOS teaches a "second function" (voice control of the device) is performed in response to a long-press of the home (activation) button and that this function is different from the first function. *Id.* at 38.

Patent Owner asserts that claim 1 requires that turning on the display and performing a first function be two different things. Prelim. Resp. 13. Patent Owner asserts that claim 1 requires display of a lock screen and that the first function (performed in response to one-time pressing of the activation button) be one of "fingerprint authentication, activating the camera, playing music, and a hands-free function." *Id.* Patent Owner argues Griffin "neither discloses turning on the display to display a lock screen nor the performance of any separate (enumerated) function in response to a single press of an activation button." *Id.* at 13–14.

We determine, for purposes of this Decision and on the current record, that Petitioner makes a sufficient showing that the Griffin-Davis-iOS combination discloses the recited activation button and first and second functions. Patent Owner's argument that Griffin does not teach these limitations is not persuasive because Petitioner relies on the combined teachings of the references to teach the disputed limitations. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981) ("[O]ne cannot show non-obviousness by attacking references individually."). Petitioner adequately supports its contention that the combination of Griffin and Davis discloses an activation button to turn on the display (fingerprint dialog lock screen)

and initiate a first function (fingerprint authentication).[3] *See* Pet. 18–19, 31–40; *see also* Ex. 1027 ¶¶ 24, 86–87, 121–122 (describing reactivating the screen upon detection of an input, such as a convenience key, and that upon detection of input at the convenience button, the device activates a second input mechanism); Ex. 1015, Fig. 4, ¶¶ 46–50 (describing presenting a fingerprint dialog and unlocking a device with fingerprint authentication).

Patent Owner further argues that even if Petitioner could show that the combination yields the claimed invention, Petitioner has failed to demonstrate that Griffin and Davis are properly combined. Prelim. Resp. 18. Patent Owner argues that a person of ordinary skill in the art would not have combined Griffin with Davis in the proposed manner because both references teach away from the simplicity achieved by the claims. *Id.* Patent Owner asserts Griffin and Davis each recognize that unlocking a device should be a complex process and that Davis "explicitly criticizes single-factor, password-based authentication while arguing in favor of two- or three-factor authentication." *Id.* at 19.

At this stage of the proceeding, we determine Petitioner makes a sufficient showing to support combining the references in the proposed manner. *See* Pet. 19–20, 22–26. Petitioner asserts it would have been obvious to a person of ordinary skill in the art to user a fingerprint function, as taught by Davis, because biometric inputs provided higher levels of security against authorized users and increased user convenience. *Id.* at 19. Petitioner further asserts that because Griffin discloses a fingerprint detector

[3] Although claim 1 sets forth the first function could instead be a different function selected from the specified group (e.g., activating the camera), we focus our analysis on the "fingerprint authentication" because all of the dependent challenged claims require this function.

and that a variety of inputs may be used for the multiple-input unlock procedures, the use of the fingerprint detector as one of the inputs in Griffin's unlock routine would have been a design decision. *Id.* at 19–20.

On the current record, we are not persuaded either reference teaches away from the recited combination. To teach away, a reference must actually "criticize, discredit, or otherwise discourage" investigation into a claimed solution. *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004). A reference does not teach away "if it merely expresses a general preference for an alternative invention." *DuPuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1327 (Fed. Cir. 2009). We do not find anything in Griffin or Davis that requires that the unlock function must be complex. Rather, Griffin teaches a single-gesture or continuous-action unlock that can easily be carried out. *See* Ex. 1027 ¶¶ 86–88. Furthermore, although Davis describes that some computers have been configured to implement additional authentication to increase security, Davis states explicitly that "many embodiments will only require a subset of the authentication factors discussed." *See* Ex. 1015 ¶¶ 3–4, 71.

b. "wherein upon one-time pressing of the activation button while the touch screen display is turned off, the terminal is configured to turn on the touch screen display and further perform at least one of the first and second functions in addition to turning on the touch screen display"

Petitioner asserts that the combination of Griffin and Davis discloses turning on the touch screen to display a lock screen (fingerprint dialog for fingerprint unlock) upon waking the device from sleep by pressing the home/convenience button. Pet. 40–41; *see also id.* at 18–19, 33–38 (additional analysis cited by Petitioner in support of its contentions for this limitation).

Patent Owner argues that Griffin only discloses a multi-step process requiring multiple user inputs to activate the display and perform a device function and does not disclose the one-step process of the challenged claims. Prelim. Resp. 14–15. Patent Owner argues that Davis does not cure Griffin's deficiencies, but instead discloses a multi-stage authentication system requiring multiple inputs. *Id.* at 15. In particular, Patent Owner asserts Davis discloses a combination of procedures to unlock a device (multiple steps with various dialogs) and Davis does not awaken the device and perform user authentication in response to a one-time pressing of an activation button. *Id.* at 15–16. Patent Owner argues that Petitioner's proposed modification, in which all methods of authentication are omitted except for fingerprint authentication, is inappropriate. *Id.* at 16–17. Patent Owner also argues that even Petitioner's proposed modification requires multiple steps/inputs (unlock command is received, fingerprint dialog is presented to use, and user provides a fingerprint in response). *Id.* at 17–18.

On the current record, we are persuaded that Petitioner supports sufficiently its contentions that the combination of Griffin and Davis discloses performing a first function (fingerprint authentication) in addition to turning on a touch screen display in response to a one-timer pressing of the activation button. *See* Pet. 13–19, 33–38, 40–41. As discussed above, Petitioner adequately supports its contentions that the Griffin-Davis combination discloses that upon activation (depressing) of an activation (convenience) button, the display is turned on and fingerprint authentication is performed. *See* Pet. 13–19, 33–38, 40–41; Ex. 1027 ¶¶ 86, 121; Ex. 1015 Fig. 4, ¶¶ 46–50. At this stage of the proceeding, we are unpersuaded by Patent Owner's argument that Petitioner's elimination of other methods of authentication from Davis is inappropriate. Davis itself states explicitly that

"many embodiments will require only a subset of the authentication factors discussed." Ex. 1015 ¶ 71.

For purposes of this Decision, we also are unpersuaded by Patent Owner's contention that Petitioner's mapping requires multiple steps/inputs that differ from those recited in claim 1. Petitioner asserts that a person of ordinary skill in the art would have understood the combination of Griffin and Davis to teach "an unlocking procedure that included an unlock command followed by a fingerprint dialog and a fingerprint unlock function, but *without any intervening input mechanisms*." *See* Pet. 17–18 (emphasis added) (citations omitted). Petitioner asserts that "[i]n this way, a single biometric input mechanism may have been used to unlock a device and launch an application." *Id.* at 18; *see also* Ex. 1015, claim 1 (setting forth that in response to receipt of a biometric candidate and a determination the biometric candidate matches a stored template associated with unlocking the computing apparatus, unlocking the computing apparatus). Petitioner's assertions are supported by the testimony of Dr. Bederson, which we credit. *See* Ex. 1003 ¶ 60–61. We note that when the first function is fingerprint authentication, claim 1 necessarily requires both the "one-time pressing of the activation button" and the fingerprint scan. At this stage of the proceeding, Petitioner makes a sufficient showing that the proposed Griffin-Davis combination of a single biometric input to turn on the display and perform fingerprint authentication meets the "one-time pressing of the activation button" limitation. The parties are encouraged to further address this issue in their papers during trial.

c. Remaining limitations

We determine that Petitioner makes a sufficient showing to support its contentions that the Griffin-Davis-iOS combination discloses the remaining

limitations of claim 1. *See* Pet. 13–42. For example, Petitioner adequately supports its contention that Griffin, Davis, and iOS teach the terminal "is configured to provide user settings for configuring at least one of the first and second functions" through Griffin's disclosure that the user may configure criteria for detecting an unlock action and the inputs to be detected for the unlock action combined with Davis' disclosure that the user may configure the mobile device to require different levels of security and iOS's description of user settings to set security features that are performed when the activation button is pressed. *See id.* at 39–40. At this stage of the proceeding, Petitioner also provides sufficient persuasive reasoning to support combining the references in the proposed manner. *See id.* at 19–20, 22–26.

d. Conclusion

For the foregoing reasons, we conclude Petitioner has demonstrated a reasonable likelihood of prevailing in establishing that claim 1 would have been obvious over the combination of Griffin, Davis, and iOS.

5. Claims 2, 4–6, and 11–14

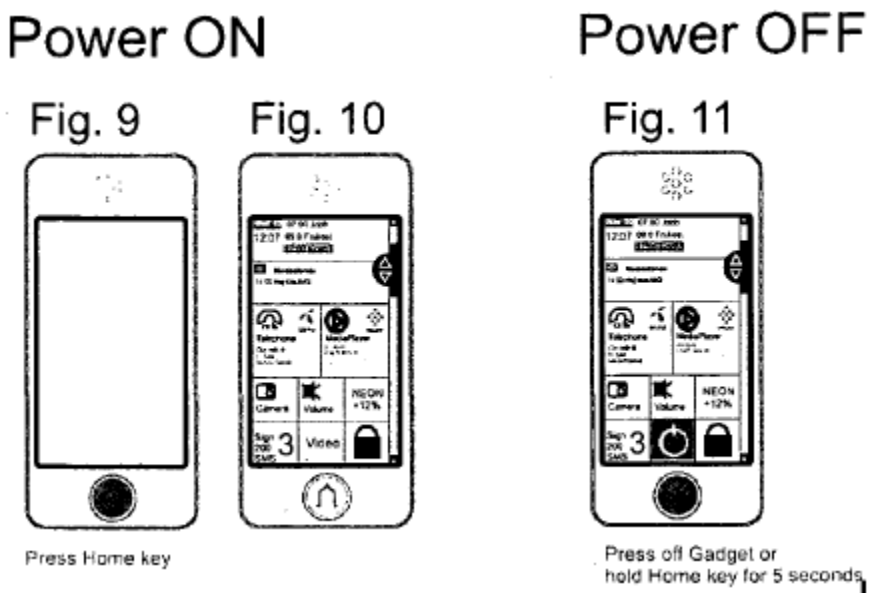
Independent claim 11 is a method claim that recites limitations similar to claim 1. Claims 2, 4–6, and 10–14 depend from claim 1 or 11. We have reviewed Petitioner's analysis and determine, for purposes of this Decision and on the current record, that Petitioner has made a sufficient showing that the combination of Griffin, Davis, and iOS teaches the limitations recited in these claims. *See* Pet. 43–52. Patent Owner does not present separate arguments for these claims. *See* Prelim. Resp. 13–19.

C. Obviousness over Goertz, Davis, and iOS

Petitioner contends that claims 1, 2, 4–6, and 11–14 are unpatentable as obvious under 35 U.S.C. § 103(a) over Goertz, Davis, and iOS. Pet. 53–86.

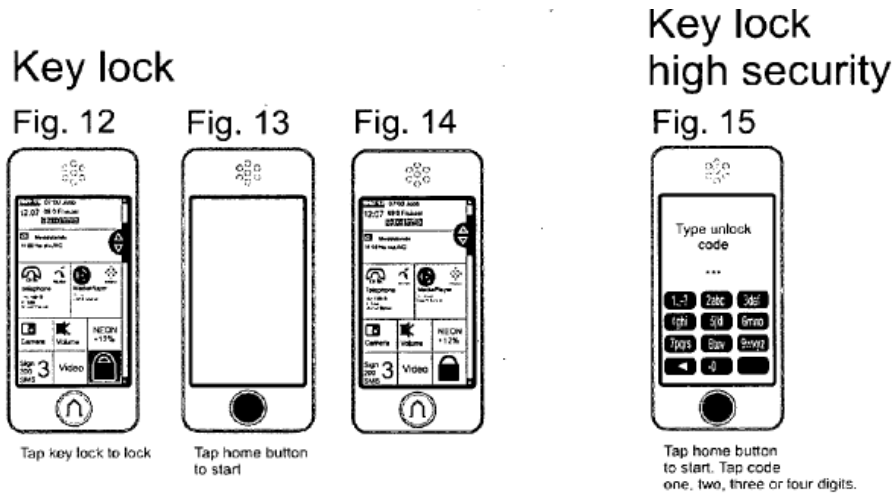
1. Overview of Goertz

Goertz describes touch screen user interfaces for electronic devices. Ex. 1013 ¶ 2. Figures 9, 10, and 11 of Goertz are depicted below.



Figures 9, 10, and 11 illustrate turning a phone on and off. *Id.* ¶ 23. Figure 9 displays a first phone with a blank screen indicating that power is off. *Id.* ¶ 59. Figure 10 displays a second phone with gadgets displayed thereon, indicating that power is on. *Id.* A "home key" is displayed at the bottom of the phones, where activating the home key (e.g., touching the key) causes the power to be turned on. *Id.* Figure 11 displays a single phone, where touching the home key for an extended period of time (e.g., 5 seconds) causes the phone to power off. *Id.*

Goertz further describes touch screens for phones with key lock. *Id.* ¶ 60. Figures, 12, 13, 14, and 15 of Goertz are depicted below.



Figures 12, 13, 14, and 15 illustrate locking and unlocking a phone. *Id.* ¶ 24. In Figure 12, a lock gadget is displayed in a lower right corner of the screen. *Id.* ¶ 60. Activating the lock gadget (e.g., pressing on it) causes the phone to lock, and when the phone is locked, activation of the phone is restricted in some manner. *Id.* As shown in Figure 13, the user activates a home key, located at bottom center of device, to unlock the phone. *Id.* Figure 14 shows the phone after it has been unlocked; gadgets are now displayed on screen and are activated in response to user input. *Id.* Figure 15 shows the phone displaying a keypad when the home key is activated (*e.g.*, by touching the home key), and prompting a user to enter a security code. *Id.* ¶ 61. As Goertz describes, the phone cannot be unlocked unless the security code is entered. *Id.* Goertz further describes that optional additional security is implemented by use of fingerprint identification, wherein the phone cannot be unlocked unless the fingerprint is authenticated. *Id.*

2. Claim 1

Petitioner asserts the combination of Goertz, Davis, and iOS teaches the limitations recited in claim 1. Pet. 53–77. Petitioner relies primarily on Goertz to disclose most of the limitations and relies on Davis and iOS in a similar manner as in its challenge based on Griffin. *See generally id.*

Patent Owner argues Goertz does not disclose "an activation button configured for pressing to turn on the touch screen display." Prelim. Resp. 20. Patent Owner asserts the disclosure of Goertz never states or confirms the display is off in Figure 13, but rather Goertz discloses that the device shown in Figure 13 is "locked." *Id.* Patent Owner argues it is equally plausible that Figure 13 only emphasizes the action of pressing the home button. *Id.* at 20–21. Additionally, Patent Owner argues that Figures 9 and 10 of Goertz do not show this claim limitation because they show using the home button to power on the device, but the claims differentiate between a power button and an activation button that is separate from the power button. *Id.* at 21–22. Patent Owner asserts that if the home key in Figures 9–10 of Goertz is a power button used to turn the device on and off, it cannot be an activation button that turns on the display. *Id.*

We determine, for purposes of this Decision and on the current record, that Petitioner makes a sufficient showing that the combination of Goertz and iOS discloses the claimed "power button configured to turn on and off the terminal by pressing" and the "activation button separate from the power button and located outside the touch screen display, the activation button configured for pressing to turn on the touch screen display." Petitioner adequately supports its contention through its assertion iOS discloses a power button (sleep/wake button), separate from a home button (activation button), and Goertz discloses an activation button (home key) located outside the touch screen display that unlocks the phone. *See* Pet. 66–69; *see also* Pet. 53 (asserting Goertz discloses activating a home key to switch the display to an active state). The cited sections of Goertz disclose that "[i]n order to unlock the phone, the user activates the home key" as shown in Figure 13 and that Figure 14 "shows the phone after it has been unlocked:

gadgets are now displayed on screen and are activated in response to user input." Ex. 1013 ¶ 60, Figs. 13, 14. Based on the current record, we are not persuaded by Patent Owner's argument that Figure 13 does not show the display is off before the button is pressed. Goertz explicitly states gadgets are *now* displayed after the phone is unlocked, which corresponds to the change in illustrations of Figure 13 (depicting a blank screen for when the phone is locked) and Figure 14 (illustrating gadgets displayed on the screen after the phone has been unlocked). *See id.*

Patent Owner additionally argues that Goertz does not disclose turning on the display and performing a fingerprint authentication in response to a one-time pressing of the activation button. Prelim. Resp. 22. Patent Owner argues Goertz teaches away from the display and timing requirements of claim 1 because Goertz discloses a multi-step process requiring multiple user inputs. *Id.* at 22–23. Patent Owner asserts the Goertz authentication sequence is a two-step process in which the display turns on and then the device prompts the user to perform authentication. *Id.* at 23. Patent Owner further asserts Davis does not cure the Goertz deficiencies, but instead discloses a multi-stage authentication system requiring multiple user inputs. *Id.* at 24.

At this stage of the proceeding, Petitioner makes a sufficient showing that the combination of Goertz and Davis discloses "upon one-time pressing of the activation button while the touch screen display is turned off, the terminal is configured to turn on the touch screen display and further perform [fingerprint authentication]." *See* Pet. 74–75; *see also id.* at 53–57, 69–73 (additional analysis cited by Petitioner in support of its contentions for this limitation). Petitioner shows sufficiently that Goertz discloses when the home key is activated, such as by touching the home key, a user is

prompted to enter a security code and that additional security is optionally implemented by use of fingerprint authentication. Pet. 69; Ex. 1013 ¶ 61. As discussed above in the challenge based on Griffin, Petitioner also makes a sufficient showing that Davis teaches that a subset of authentication factors may be used and that a single biometric input may be used to unlock a device and launch an application. *See* Pet. 17–18, 55; Ex. 1015 ¶ 71, claim 1. For similar reasons discussed in our analysis of the Griffin challenge, we are persuaded, for purposes of this Decision, that Petitioner adequately supports its contention that the combination of Goertz and Davis discloses the "one-time pressing" of the activation button turns on the touch screen display and causes fingerprint authentication to be performed.

We also determine Petitioner adequately supports its contentions that the Goertz-Davis-iOS combination discloses the remaining limitations of claim 1. *See* Pet. 53–86. For example, Petitioner explains adequately that Davis discloses that a lock screen (fingerprint dialog) is displayed on the touch screen display upon receipt of an unlock command. *Id.* at 55 (citing Ex. 1015 Fig. 4). We further determine, for purposes of this Decision, that Petitioner provides sufficient reasoning why one of ordinary skill in the art would have combined the references in the proposed manner. *See id.* at 56–57, 59–64.

For the foregoing reasons, we are persuaded Petitioner has demonstrated a reasonable likelihood of prevailing in establishing that claim 1 would have been obvious over the combination of Goertz, Davis, and iOS.

3. Claims 2, 4–6, and 11–14

We have reviewed Petitioner's analysis and determine, for purposes of this Decision and on the current record, that Petitioner has made a sufficient showing that the combination of Goertz, Davis, and iOS teaches

the limitations recited in independent claim 11 and dependent claims 2, 4–6, and 12–14. *See* Pet. 77–86. Patent Owner does not present separate arguments for these claims. *See* Prelim. Resp. 19–24.

III. CONCLUSION

Petitioner has demonstrated a reasonable likelihood of prevailing on its challenges to at least one of claims 1, 2, 4–6, and 11–14 of the '373 patent as set forth above.

At this stage of the proceeding, we have not made a final determination as to the patentability of any of these challenged claims or the construction of any claim term.

IV. ORDER

It is

ORDERED that pursuant to 35 U.S.C. § 314(a), an *inter partes* review is hereby instituted on all grounds set forth in the Petition:

(1) Obviousness of claims 1, 2, 4–6, and 11–14 over Griffin, Davis, and iOS;

(2) Obviousness of claims 1, 2, 4–6, and 11–14 over Goertz, Davis, and iOS; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial commencing on the entry date of this Decision.

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