

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICROSOFT CORPORATION,
Petitioner,

v.

RAMZI KHALIL MAALOUF,
Patent Owner.

IPR2020-00483
Patent 9,503,627 B2

Before BRIAN J. McNAMARA, KEVIN C. TROCK, and
JASON W. MELVIN, *Administrative Patent Judges*.

McNAMARA, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. BACKGROUND

On September 16, 2020, we instituted an *inter partes* review of claims 29 and 37 of U.S. Patent No. 9,503,627 B2 (“the ’627 Patent”). Paper 11 (“Dec. to Inst.”). Ramzi Khalil Maalouf (“Patent Owner”)¹ filed a Request for Rehearing (Paper 13), that was denied (Paper 26). Patent Owner filed a Patent Owner Response. Paper 25 (“PO Resp.”). Microsoft Corporation (“Petitioner”) filed a Petitioner Reply. (Paper 27, “Pet. Reply”). A transcript of an oral hearing held on June 14, 2021, has been entered into the record. Paper 31 (“Hr’g. Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. §318(a). We base our decision on the preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d).

Having reviewed the arguments of the parties and the supporting evidence, we conclude that Petitioner has demonstrated by a preponderance of the evidence that the challenged claims are unpatentable.

II. THE ’627 PATENT (EXHIBIT 1001)

The ’627 patent describes a handle for a handheld terminal, e.g., a mobile phone, that can be used for taking photographs or creating videos or to control the phone remotely. Ex. 1001, 1:22–24, 3:65–4:1, 3:5–6. The handle provides a wired or wireless connection to the handheld terminal through a first wired or wireless interface module. *Id.* at 2:35–37. The first interface module may be, e.g., a USB interface or an iPhone interface and the wireless interface module may be, e.g., WiFi or Bluetooth. *Id.* at 2:55–59. A power supply module provides power for the handle device and

¹ Ownership of the ’627 patent changed after entry of the Decision to Institute. At that time, the ’627 patent was owned by Dareltech LLC.

may include various types of batteries that can be charged and discharged. *Id.* at 2:42–43, 62–6, 3:52–54. The handle may also include a key module for users to input commands. *Id.* at 2:43–44, 62–63, 4:43–44. Figure 2 of the '627 patent, reproduced below, is a front view of the handle.

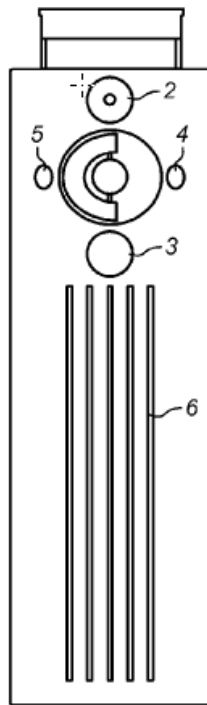


Figure 2 of the '627 patent showing a front view of the handle

The handle in Figure 2 includes camera key 2, a camera/video shift key, first zoom key 4, second zoom button 5, and slots 6. *Id.* at 3:43–47.

Figure 3 of the '627 patent is shown below.

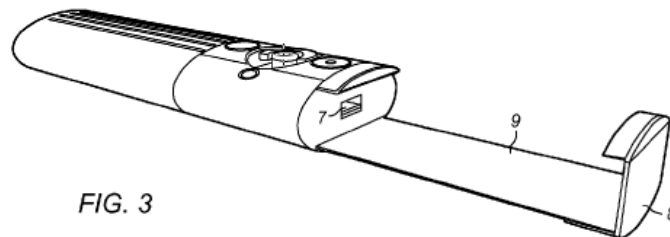


FIG. 3

Figure 3 of the '627 patent showing a slot sliding plate

Figure 3 illustrates the handle's slot sliding plate. *Id.* at 2:3–4. The handle base module includes transformable chuck 8, slot sliding plate 9, a magnet and spring (not shown), and button 1 (not shown) used to open and close slot sliding plate 9 to fix the position of the handheld terminal and transformable chuck 8. *Id.* at 3:27–33, 4:1–6.

The '627 patent states that “[t]he one hand handle may include a remote control of the mobile phone,” that

realizes the transformation from the behavior pattern of operating the mobile phone for taking pictures or videos to the behavior pattern of one-hand operating mobile phone, controlling the camera or video function of the handheld terminal, so that the handheld terminal is convenient and comfortable holding. The one hand handle may also provide stability and security.

Id. at 3:5–14. “The one-hand handle has connection with the handheld terminal via the first wireless interface module, or has wired connection via the first wired interface module.” *Id.* at 3:24–26.

III. CHALLENGED CLAIMS

Challenged independent claim 29 is reproduced below with paragraph designations corresponding to those used in the Petition.

[29P] A handheld device to wirelessly operate a camera of a mobile device, wherein the handheld device comprises:
[29A] a holder that, during use, holds the mobile device; and
[29B.1] a handle apparatus coupled to the holder, wherein the handle apparatus comprises:
[29B.2a] a command key that, during use, is selectable and corresponds to a camera feature of the mobile device,
[29B.2b] wherein the command key is positioned on the handle apparatus such that a user is able to, with one hand, both hold the handle apparatus and select the command key;
[29B.3a] a wireless interface module that, during use, provides a wireless connection to the mobile device,
[29B.3b] wherein remote control of the camera feature of the mobile device is provided over the wireless connection; and

[29B.4a] a command key module that, during use, provides, via the wireless connection, a control command to the mobile device such that the control command indicates to the mobile device to perform the camera feature,
[29B.4b] wherein the command key is one of a plurality of command keys positioned on the handle apparatus, and
[29B.4c] wherein each of the plurality of command key corresponds to a respective command.

Claim 37, which depends from claim 29 and is the only other claim challenged in the Petition, is reproduced below.

37. The handheld device of claim 29, wherein the holder, during use and using the sliding member, adjusts to hold mobile phones of various sizes.

IV. ASSERTED ART

Petitioner cites the following references in its challenges to patentability:

Reference	Designation	Exhibit No.
U.S. Patent App. Publication No. 2013/0005401 published January 3, 2013	Rosenhan	1005
WIPO Publication No. 2012/096433 published July 19, 2012	Kim	1006; 1007 (Certified English Translation)
U.S. Patent No. 7,684,694 issued March 23, 2010	Fromm	1008
WIPO Publication No. 2012/018405 published February 9, 2012	Fenton	1009
U.S. Patent Appl. Publication No. 2011/0058052, published March 10, 2011	Bolton	1010

V. GROUNDS OF INSTITUTION

Inter partes review was instituted on the following grounds:

Claim(s) Challenged	35 U.S.C. §	Reference(s)
29	103	Rosenhan
37	103	Rosenhan, Kim
29, 37	103	Fromm, Fenton, Bolton

VI. ANALYSIS OF PRIOR ART CHALLENGES

A. Introduction

Petitioner’s challenges assert that claims 29 and 37 (the “challenged claims”) are obvious under 35 U.S.C. § 103. Pet. 2. The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Additionally, the obviousness inquiry typically requires an analysis of “whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (requiring “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”)); see *In re Warsaw Orthopedic, Inc.*, 832 F.3d 1327, 1333 (Fed. Cir. 2016) (citing *DyStar Textilfarben GmbH & Co. Deutschland KG v. C. H. Patrick Co.*, 464 F.3d 1356, 1360 (Fed. Cir. 2006)).

An obviousness analysis “need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR*, 550 U.S. at 418; accord *In re Translogic*

Tech., Inc., 504 F.3d 1249, 1259 (Fed. Cir. 2007). Petitioner cannot satisfy its burden of proving obviousness by employing “mere conclusory statements.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016). Instead, Petitioner must articulate a reason why a person of ordinary skill in the art would have combined the prior art references. *In re NuVasive*, 842 F.3d 1376, 1382 (Fed. Cir. 2016).

A reason to combine or modify the prior art may be found explicitly or implicitly in market forces; design incentives; the “interrelated teachings of multiple patents”; “any need or problem known in the field of endeavor at the time of invention and addressed by the patent”; and the background knowledge, creativity, and common sense of the person of ordinary skill. *Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1328–29 (Fed. Cir. 2009) (quoting *KSR*, 550 U.S. at 418–21).

Before determining whether a claim is obvious in light of the prior art, we consider any relevant evidence of secondary considerations of non-obviousness. *See Graham*, 383 U.S. at 17. Notwithstanding what the teachings of the prior art would have suggested to one of ordinary skill in the art at the time of the invention, the totality of the evidence submitted, including objective evidence of non-obviousness, may lead to a conclusion that the challenged claims would not have been obvious to one of ordinary skill. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984).

Having analyzed the asserted grounds of unpatentability in accordance with these principles, based on the evidence of record, and for the reasons discussed below, we conclude that Petitioner has met its burden to establish by a preponderance of the evidence that the claims are unpatentable on each of the asserted grounds.

B. Claim 29 as Obvious over Rosenhan

1. Rosenhan

Petitioner cites Rosenhan as disclosing an ergonomic handle that couples to a smart phone and has buttons that allow a user one handed control of camera functions, e.g., zoom and record functions, through a wired or wireless electronic interface, such as a Bluetooth interface. Paper 2 (“Petition” or “Pet.”), 12–15 (citing Ex. 1005 ¶¶ 5, 6, 22, 24, 26–27, 29). Figure 2A of Rosenhan, reproduced below, is a side view of its ergonomic handle and a smartphone.

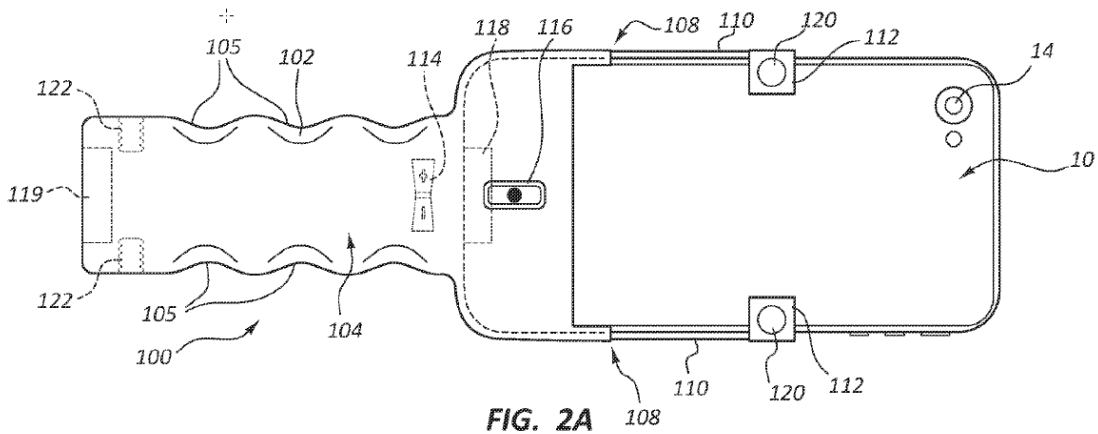


Figure 2A of Rosenhan showing a handle portion and smartphone

Rosenhan’s device 100 includes grippable handle portion 102 with undulating finger recesses 105. Ex. 1005 ¶ 23. Petitioner notes that Rosenhan employs mounting structure 108 having a pair of opposed arms 110 and clip 112 disposed on one end of the arms. Pet. 22 (citing Ex. 1005 ¶¶ 24–25). Petitioner further states that Rosenhan’s mounting structure is designed to secure a smartphone having a specific width and thickness. *Id.* (citing Ex. 1003, Welch Decl. ¶ 99). We also note that Rosenhan discloses telescoping arms. Ex. 1005 ¶ 41.

2. *Claim 29*

The preamble of claim 29 (29P) recites a “handheld device to wirelessly operate a camera of a mobile device.” Petitioner cites Rosenhan’s disclosure of a handle mount device that includes controls for controlling, zooming or recording over a wireless connection, e.g. Bluetooth, interface. Pet. 23–24 (citing Ex. 1005 ¶¶ 6, 29; Ex. 1003, Welch Decl. ¶¶ 84–85).

Petitioner identifies as claim element 29A the limitation that recites a holder that holds the mobile phone during use. *Id.* at 24. Petitioner cites Rosenhan’s disclosure of mounting structure 108 having arms 110 and clips 112 to hold the smartphone while the user grips handle 102 as teaching claim element 29A. *Id.* at 24–25 (citing Ex. 1006 ¶ 24; Ex. 1003, Welch Decl. ¶ 86).

Petitioner identifies four “handle apparatus” limitations (claim elements 29B.1 through 29B.4) in claim 29. Pet. 25–30. As to the recited “handle apparatus coupled to the holder” (claim element 29B.1), Petitioner cites Rosenhan’s disclosure of an ergonomic grippable handle 102 at a proximal end of handle mount device 100 that may be gripped by a user. *Id.* at 25–26 (citing Ex. 1006 ¶ 22, Fig. 1B; Ex. 1003, Welch Decl. ¶ 87).

Petitioner identifies the command key limitations as claim element 29B.2 and breaks them into two command key limitations. Pet. 26–28. As to the recitation of “a command key that during use is selectable and corresponds to a camera function of the mobile device” (claim element 29B.2a), Petitioner cites Rosenhan as disclosing buttons pressed by the user to send, e.g., zoom and record commands to the smartphone by pressing a + or – key, respectively. *Id.* (citing Ex. 1005 ¶ 27). Petitioner identifies other controls in Rosenhan’s mount device 100, including focusing, color balance, video or photo mode selection, flash or other lighting controls, flip function,

and other functions available through video capabilities of the smart phone. *Id.* As to the recitation of the command key positioned on the handle apparatus such that the user is able to hold the handle and select the command key with one hand (claim element 29B.2b), Petitioner cites Rosenhan's disclosure of command keys on the handle within easy reach of the same hand the operator uses to hold the handle, such that the user can control operable features of the mobile phone. *Id.* at 26–28 (citing Ex. 1005 ¶¶ 22, 28; Ex. 1003, Welch Decl. ¶¶ 89–90, 94).

Petitioner identifies claim element 29B.3a as reciting a wireless interface module that provides a wireless connection to the phone during operation. Pet. 28. Petitioner cites Rosenhan as disclosing a wireless connection between the handle and smartphone over Bluetooth. *Id.* at 28–29 (citing Ex. 1003 ¶¶ 29, 46; Ex. 1003, Welch Decl. ¶ 91). Petitioner identifies as claim element 29B.3b the recitation that the camera's remote control is provided over the wireless connection and cites to Rosenhan's disclosure that electronic connection interface may sync or otherwise control the zoom and record functions of the camera using the Bluetooth connection. *Id.* at 29–30 (citing Ex. 1005 ¶¶ 5–6, 29; Ex. 1003, Welch Decl. ¶¶ 91–92).

Petitioner identifies as claim element 29B.4.a–c the limitations that recite, respectively, (a) a command key module that during use provides a command to perform a camera function via a wireless connection, (b) that a command key is one of a plurality of keys on the handle and (c) that each of the plurality of keys corresponds to a respective command. Pet. 30–33. Petitioner notes that the '627 patent provides a limited description of the command key module, but argues that such features as receiving an indication of a user's selection of a command by pressing a button is well known to those of ordinary skill. *Id.* at 30–31 (citing Ex. 1003, Welch Decl.

¶¶ 66, 93). Petitioner further notes that Rosenhan discloses a set of buttons on the handle including zoom key 114 and record key 116, as well as control keys for selecting video or photo modes, color balance and focusing. *Id.* at 31 (citing Ex. 1005 ¶¶ 27–28, 52–55; Ex. 1003, Welch Decl. ¶¶ 88, 96). As further evidence that Rosenhan discloses this limitation, Petitioner further notes that Rosenhan discloses transmitting a command corresponding to a user selected button to the mobile phone via a wireless Bluetooth connection. *Id.* at 32–33 (citing Ex. 1005 ¶¶ 26–29, 46; Ex. 1003, Welch Decl. ¶ 94).

The Patent Owner Response argues that Rosenhan does not disclose claim limitation 29B.3b, which recites “wherein remote control of the camera feature of the mobile device is provided over the wireless connection.” PO Resp. 3; Hr’g. Tr. 22:4–13. According to Patent Owner “Rosenhan is completely silent on the subject matter of remotely controlling the camera feature as claimed.” PO Resp. 4.

Patent Owner acknowledges: (i) that Rosenhan’s electronic connection interface 118 may comprise a wireless connection, such as a Bluetooth or IR connection, and (ii) that Rosenhan’s electronic connection interface provides electronic communication between zoom control button 414 and record control button 416 on device 400 and smartphone 10. PO Resp. 5 (citing Ex. 1005 ¶¶ 29, 46). According to Patent Owner, although Rosenhan’s buttons 414, 416, which are called “zoom control” and “record control” respectively, may communicate with the smartphone, in Rosenhan “no example is stated where activating such buttons effects such ‘control.’” *Id.* Patent Owner contends that “[r]emote control is a completely different thing than wireless connection.” Hr’g. Tr. 24:2. Patent Owner argues Rosenhan’s reference to “the Bluetooth signal that gives it the impression

that this is remote control is nothing more than just reminding you that there is a wireless connection. It's not remote control. Because if it were, it would be in the text.” *Id.* at 25:21–24 (referencing Rosenhan’s description of Figures 6A and 6B); *see also id.* at 25:8–16.

Notwithstanding Patent Owner’s argument that Rosenhan does not disclose remote control, we note that Rosenhan explicitly describes “controls disposed on the handle mount device (e.g., on the grippable handle portion) for controlling at least one of recording or zooming, and an electronic connection interface for providing electronic communication between controls of the handle mount device and the smartphone.” Ex. 1005 ¶ 6; *see also id.* ¶¶ 7–8. In addition, Rosenhan’s discussion of zoom control button 114 and record control button 116 states “toggle type focus control button 114 of Figs. 1B and 2A may alternatively be employed with any of the embodiments.” Ex. 1005 ¶ 46. Rosenhan further states “[w]ireless connection 418 provides an electronic connection interface for providing electronic communication between controls 414 and 416 on device 400 and smartphone 10.” *Id.*

Patent Owner further argues “[a]nd likewise, no text in Rosenhan states that any such communication happens at all (‘control’ or otherwise) when the handle is loose from the smartphone case.” PO Resp. 5. On this point, Patent Owner contends that Rosenhan does not teach “remote control,” as that term used in claim 29, based on the language in the Specification that “[i]n certain embodiments, remote control operations can also be performed (for example, **a non-fixed mode**). PO Resp. 4 (quoting Ex. 1001, 2:31–34) (emphasis by Patent Owner). According to Patent Owner, this statement in the Specification specifies “the scope of remote control to be understood as controlling the camera feature of the mobile

device via the wireless connection **at least when the mobile device is not fixed to the holder of the handheld device.**” *Id.* (emphasis by Patent Owner). We note that by arguing “at least” a non-fixed mode, Patent Owner does not disclaim remote control when the mobile phone is affixed to the handle.

Petitioner argues that Patent Owner’s arguments fail for two reasons: (1) “the challenged claims do not require that the control buttons operate when the handle is loose from the smartphone case” (non-fixed mode), and (2) “even if the challenged claims required this sort of ‘non-fixed mode’ of remote control . . . Rosenhan expressly teaches it.” Pet. Reply 4. As to its first argument, Petitioner states that claim 29 covers at least a fixed mode, rather than a non-fixed mode, because independent claim 29’s limitations repeatedly recite “during use,” e.g., “when the handle is coupled to the holder and the holder is holding the mobile device.” *Id.* at 5. As to its second argument, Petitioner states “even if such an ‘uncoupled’ remote control were to be read in as a limitation of claim 29 . . . Rosenhan clearly states that for Rosenhan’s wireless Bluetooth control ‘no physical electronic connection is required.’” *Id.* at 7.

The ’627 patent Specification does not define the term “remote control.” Patent Owner acknowledges that “remote control is when you are controlling something from a remote location.” Hr’g. Tr. 24:4–5. Patent Owner’s argument overlooks that the purpose of the communication in Rosenhan is to control operations of the smartphone camera, as discussed above. *See* Ex. 1005 ¶¶ 6–8, 46. For example, when the zoom control button is pressed, Rosenhan communicates a signal to the smartphone that causes the smartphone camera to zoom in or out. *Id.* ¶ 22 (“with a single hand, the user can conveniently and easily operate both record button 116

(FIG. 2A) with wrapped around fingers, while simultaneously allowing operation of zoom button 114 with the thumb. (FIG. 1B)"); *see also* ¶ 26 (“[I]llustrated positioning of controls 114 and 116 may be particularly advantageous as it allows convenient control within a single gripping hand as the finger tips (e.g., the index finger) can depress record button 116, and the thumb can easily manipulate either side of toggle Zoom control 114.”). Thus, Rosenhan teaches buttons (i.e., command keys) on the handle that control the camera features, as claimed. Rosenhan’s controls are provided via a wireless communication path (or wireless connection). Rosenhan explicitly states that “electronic connection interface 118 may comprise a wireless connection (e.g., through Bluetooth, IR, etc.) so that no physical electronic connection is needed.” *Id.* ¶ 29. Thus, irrespective of whether the smartphone is connected to the handle or not, as long as the smartphone is in range of the wireless signal, Rosenhan provides remote control of the camera features over the wireless connection, as recited in claim limitation 29.B.3b.

We also agree with Petitioner that an analysis of the language of independent claim 29 and dependent claim 37 compels a finding that Rosenhan teaches or suggests the limitations of the claims as written. Claim 29 recites a “handheld device to wirelessly operate a camera” that comprises “a holder that, *during use, holds the mobile device.*” (emphasis added). Pet. Reply 4–6. Claim 29 further recites a handle apparatus coupled to the holder. That handle apparatus, which is coupled to the holder, includes a wireless module that provides a wireless connection to the mobile device and “remote control of the camera feature of the mobile device is provided over the wireless connection,” as recited in claim 29. As the handle apparatus is coupled to a holder that holds the mobile phone during use and

the handle includes a wireless control module to control the mobile phone's camera remotely via the wireless connection, claim 29 is not limited to a "non-fixed" implementation in which the mobile device is not held by the holder during use.

Patent Owner's arguments concerning remote control are also inconsistent with its own description of "a commercial embodiment of the invention claimed by the '627 patent called the HandlePa." PO Resp. 2. According to Patent Owner, "we customized a phone case that could be easily installed and removed (or could stay on for protection), coupled to an extendable, grippable stick that could be easily decoupled when not in use. Ex. 2001, Declaration of Ramzi Khalil Maalouf, ("Maalouf Decl.") ¶ 7.

Patent Owner further testified:

The HandlePa is a selfie stick with control buttons to communicate wirelessly with the smartphone and to control and operate at least the camera function using just one finger. The apparatus yields clearer and steadier pictures than the prior art, while allowing the user to take more difficult angle shots using only one hand to securely grasp the stick and operate the systems safely and comfortably.

Maalouf Decl. ¶ 9. Patent Owner's description of the commercial embodiment of the invention does not mention a "non-fixed" mode of operation. Patent Owner's description of its own commercial embodiment of the invention emphasizes many of the same features as those described by Rosenhan.² *See, e.g.*, Ex. 1005 ¶¶ 6–8, 29.

Finally, the explicit teachings of Rosenhan refute Patent Owner's arguments that the difference between international CPC classification of the

² As discussed further herein, another section of the Patent Owner Response attempts to limit the invention to a "selfie stick," although there is no such limitation recited in the claims.

'627 patent and that of Rosenhan “establishe[es] the fact that Rosenhan does not even relate to remotely controlling the camera features, at least as claimed.” PO Resp. 4–5.

Having reviewed the evidence and arguments of record, we conclude that Petitioner has established by a preponderance of the evidence that Rosenhan discloses the limitations of claims 29. Although written in the context of Ground 2, i.e., that claim 37 is obvious over Rosenhan in view of Kim, (PO Resp. 8–9), Patent Owner’s discussion of objective indicia of obviousness (“secondary consideration”) applies to all of Petitioner’s challenges. We address secondary considerations in Section VI.F herein.

C. Claim 37 as Obvious over Rosenhan and Kim

1. Kim

Kim discloses a wireless remote control device for self-photography using a mobile camera. Ex. 1007, 1:9–14. A perspective view of mobile phone held in a holder in Figure 11 of Kim is reproduced below.

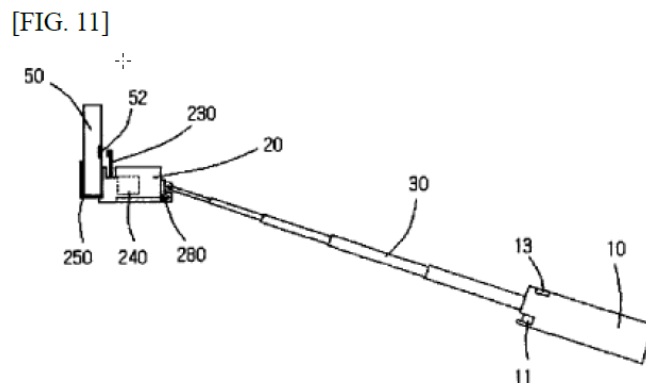


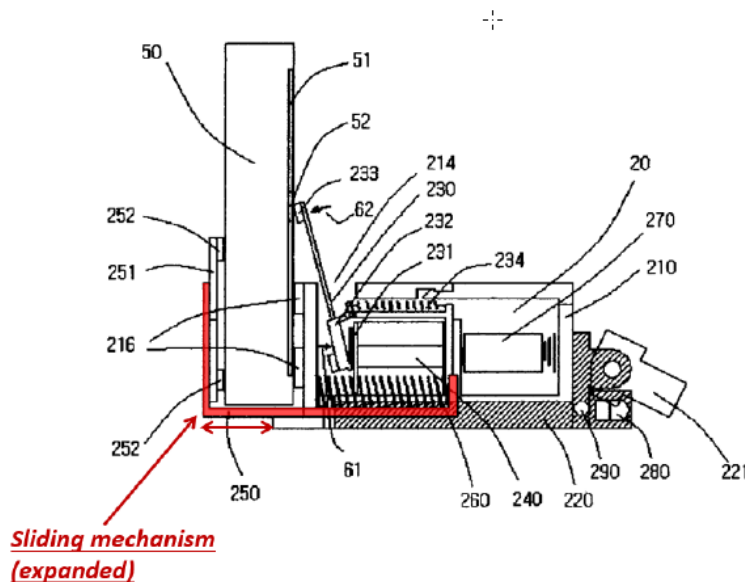
Figure 11 of Kim

Referring to Figure 11, Petitioner cites Kim as disclosing a self-photography device whose core components include graspable handle part 10, telescoping shaft 30, and mounting part 20 that serves as a mount to which mobile 50 is affixed and permits the user to change the direction of

the mobile phone as desired. Pet. 35 (citing Ex. 1007, 3:23–24, 5:13–17, 5:22–23, 11:14–15). Petitioner notes that Kim’s handle portion includes a wireless transmitter that communicates with a receiver in the phone mount to activate the phone’s touchscreen and that a battery coupled to the wireless transmitter provides power to the transmitter and other components on the handle. *Id.* at 35–36 (citing Ex. 1007, 3:22–26, 5:24–30, 6:9–11, 6:28–7:3).

Petitioner’s annotated version of Figure 5 of Kim, which illustrates a cross sectional view of a phone held in a mounting part of the holder, is reproduced below.

[Fig. 5]



Petitioner’s annotated version of Figure 5 of Kim

Pet. 37. Petitioner’s annotated version of Figure 5 of Kim shows a cross sectional view of a mobile phone in a mounting part of the holder. *Id.* Petitioner cites Kim as disclosing a phone mount with horizontally sliding holder 250 actuated by spring 260 to affix mobile phones 50 of different thickness to the mount. *Id.* at 37–38 (citing Ex. 1003, Welch Decl. ¶¶ 98–106).

2. *Claim 37*

Claim 37 depends from claim 29 and recites that the holder adjusts, using the sliding member, to hold mobile phones of various sizes. As to this limitation, Petitioner cites Kim’s disclosure that its mobile phone holder 250 is actuated by holder spring 260, so as to hold mobile phones of different thicknesses. Pet. 41 (citing Ex. 1007, 9:24–26, 14:14–14; Ex. 1003, Welch Decl. ¶¶ 124–125). Noting that Kim includes an adjustable mechanism for holding a smartphone and attaches to an extendable rod by way of a pivot point, Patent Owner states “[t]he mechanism in Kim is much thicker than the phone itself. Prelim. Resp. 19. However, in both the Preliminary Response and the Patent Owner Response, Patent Owner does not contest explicitly that Kim discloses a sliding member that adjusts to hold a phone of various sizes, as recited in claim 37.

For the reasons discussed above, we find that Petitioner has demonstrated by a preponderance of the evidence the combined teachings of Rosenhan and Kim disclose the limitations of claim 37.

3. *Reasons to Combine Rosenhan and Kim*

Noting that Rosenhan does not disclose explicitly that its mounting structure can accommodate smartphones of different width and thickness and that both Rosenhan and Kim concern remotely controlling a smartphone used as a camera, Petitioner argues that a person of ordinary skill in the art would have been motivated to modify Rosenhan’s mounting structure to include an adjustable phone mount, such as that disclosed by Kim, in order to accommodate commercially available smartphones and their diverse form factors. Pet. 40–41 (citing Ex. 1003, Welch Decl. ¶¶ 107, 121–122). Petitioner further emphasizes Rosenhan’s explicit suggestion that other mount structures could be used to secure the smart phone to the mount

device. *Id.* at 38 (citing Ex. 1005 ¶¶ 24–25, 48–49; Ex. 1003, Welch Decl. ¶ 107).

The Patent Owner Response does not explicitly address the reasons to combine the teachings of Rosenhan and Kim advanced in the Petition, but includes a section entitled “Arguments copied from the Preliminary Response”.³ PO Resp. 10. In its Preliminary Response, Patent Owner argued that a person of ordinary skill would not have been motivated to combine the teachings of Rosenhan and Kim because such a combination “results in a larger, bulkier, more cumbersome, end-weighted device that would be more difficult to hold in a stable position during video shoots.” Prelim. Resp. 20. According to Patent Owner, Petitioner’s proposed combination “significantly changes the relationship of the smartphone screen to the grip, changing the principle of operation of the device” and defeats Rosenhan’s goal of an ergonomic and compact design. *Id.* at 20–21.

In our institution decision, we found these arguments unavailing. Dec. to Inst. 29. We again note that Petitioner cites Kim for its teaching of a holder that adjusts to smartphones of different widths and thicknesses, but that Patent Owner’s arguments in the Preliminary Response are drawn to other features of Kim that Petitioner does not cite in its combination with Rosenhan. *Id.*

The Patent Owner Response does not respond directly to the issues discussed above. We find that Petitioner has demonstrated by a

³ Patent Owner’s arguments copied from the Preliminary Response are drawn from its response to “Ground 3” concerning the combination of Fromm, Fenton, and Bolton. In the absence of a specific response to Petitioner’s arguments concerning the reasons to combine Rosenhan and Kim in Ground 2, we review Patent Owner’s Preliminary Response on that ground, as well.

preponderance of the evidence that a person of ordinary skill would have had reason to combine the teachings of Rosenhan and Kim and that their combined teachings disclose the limitations of claim 37.

4. *Additional Arguments*

Although written in the context of Petitioner's challenge to claim 37 as obvious over Rosenhan and Kim, Patent Owner advances additional arguments concerning hindsight and secondary considerations that do not distinguish Petitioner's challenge based on Rosenhan and Kim (Ground 2) from Petitioner's challenge based on Fromm, Fenton and Bolton (Ground 3). Therefore, we review Petitioner's assertions concerning Fromm, Fenton, and Bolton, before turning to the additional arguments relevant to both Grounds 2 and 3 presented in the Patent Owner Response. We address Patent Owner's additional arguments in Sections VI.E–F herein.

D. *Claims 29 and 37 as Obvious over Fromm, Fenton, and Bolton*

1. *Fromm*

Figure 2 of Fromm reproduced below is a side view of an apparatus for supporting a camera.

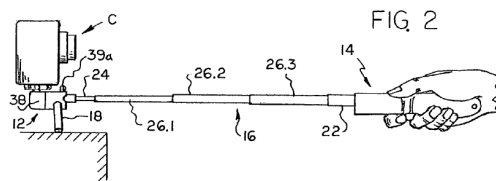


Figure 2 of Fromm

Figure 2 of Fromm is a side view of a camera supporting apparatus in a fully extended position Fromm. Ex. 1008, 4:26–27. Figure 2 shows extensible telescoping support 16 that extends between base assembly 12, where a camera is secured, and handgrip 14. Ex. 1010, 1:15–25. A battery powered remote control device, e.g., one integrated into the handle, allows the user to

activate a zoom, shutter release, and playback from the remote control using communication codes, e.g., infrared codes. *Id.* at 7:54–8:11.

2. *Fenton*

Fenton discloses an apparatus suitable for holding a mobile device and attaching to other apparatus. Ex. 1009, Abstract. Figure 1 of Fenton is reproduced below.

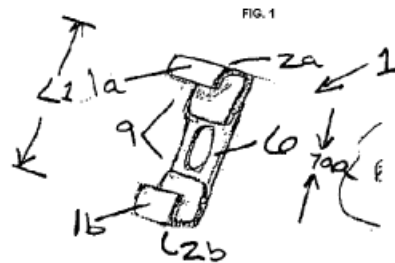


Figure 1 of Fenton

Figure 1 of Fenton is a diagram of a universal holder for smart phones, computer tablets and other electronic devices. Ex. 1009, 18. Figure 1 of Fenton shows universal smart phone holder 1 with main body 9, upper finger 2a with upper tip 1a and lower finger 2b with lower tip 1b connected together by spring component 6 and that pulls the fingers together in the direction 7aa. *Id.* at 27. The mobile device is held tightly between an upper inner cavity formed by main body 9, upper finger 2a and upper tip 1a, and a lower cavity formed by main body 9, lower finger 2b and lower tip 1b. *Id.*

3. *Bolton*

Bolton discloses an accessory that can remotely control a portable media device (PMD) capable of storing and playing still images and/or recording video and audio. Ex. 1010, Abstract ¶ 24. Communication between the accessory and the PMD according to a PMD specific protocol is achieved over a physical connection (e.g., USB, FireWire, or universal

asynchronous receiver/transmitter (UART)) or a wireless channel (e.g., Bluetooth and Wi-Fi). *Id.* ¶¶ 22, 38–39. The accessory can include a power button, a photo button, a record button, a preview button, playback controls, and a mode button to change operation modes, e.g., to toggle between still photo mode and video mode, and a touch screen or display. *Id.* ¶¶ 22–23.

4. *Claim 29*

Petitioner first contends that the combination of Fromm, Fenton and Bolton discloses the “handheld device” to “wirelessly operate a camera” in the preamble of claim 29. Pet. 51–52. Petitioner cites Figure 1 of Fromm as showing a camera secured to a base assembly and Figure 15 of Fromm as showing base assembly 12 and handgrip 14, such that the user holds the handgrip and aims the camera, which may be a picture phone or video phone, with the lens facing himself. *Id.* (citing Ex. 1008, 2:62–63, 3:63–65, 5:30–35, 5:49–52, 6:31–35; Ex. 1003, Welch Decl. ¶ 148).

Noting that Fromm refers to a “special adaptor” for a picture phone and video phone, Petitioner cites Fenton as disclosing such a special adaptor in the form a universal mobile device holder. *Id.* at 49 (citing Ex. 1009, 2:20–27; Ex. 1003, Welch Decl. ¶ 163).

Petitioner cites Bolton’s disclosure of remote, wireless camera control, e.g., using Bluetooth technology, as teaching the wireless operation of the mobile phone in the preamble of claim 29. *Id.* at 52 (citing Ex. 1008 ¶ 22; Ex. 1003, Welch Decl. ¶ 163).

Petitioner next turns to the “holder” limitation identified in the Petition as claim limitation 29A. Pet. 52–54. Petitioner notes that Fromm’s handheld device 10 includes base assembly 12, handgrip 14, and elongated extensible support 16 with a coupling mechanism, e.g. a ball seated in the base assembly and a threaded stud carried by the ball, to couple a film or

digital camera to the handle. *Id.* 52–53 (citing Ex. 1008, 5:49–52, 6:21–31, Fig. 5). In the combination of Fromm and Fenton, Petitioner cites the universal holder shown in Figure 7C of Fenton, reproduced below, as Fromm’s special adaptor for a mobile phone. *Id.* at 44–45, 53–54.

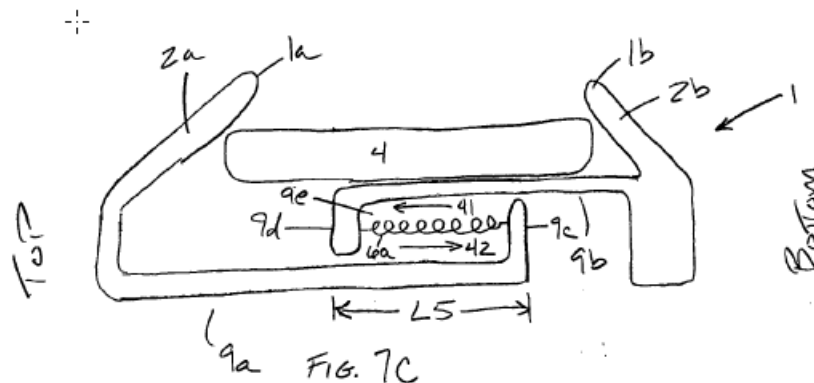


Figure 7C of Fenton showing the elements of a universal mobile phone holder

Petitioner notes that the universal holder in Figure 7C of Fenton includes a main body with overlapping portions 9a/9b, spring 6 and upper and lower fingers 2a/2b “configured such that the spring mechanism may be compressed in order to apply a generally outward force that may in turn apply a generally inward force between the upper finger 2a and the lower finger 2b of the universal holder 1 that may be sufficient to hold a mobile device 4 securely within the universal holder between upper finger 2a and lower finger 2b.” *Id.* at 44–45, 53–54 (quoting Ex. 1012, 41:14–19). Mr. Welch points out that when a mobile device is placed between upper finger 2a and lower finger 2b, spring mechanism 6a is compressed, exerting a force in the direction of arrows 41 and 42 to pull fingers 2a and 2b together and hold the mobile device securely within the universal holder. Ex. 1003, Welch Decl. ¶¶ 151–152 (citing Ex. 1009, 41:22–42:18).

Petitioner next turns to the “handle apparatus limitations of clam 29B, i.e., claim limitations 29B.1 (handle apparatus), 29B.2 (command key), 29B.3 (wireless interface module, and 29B.4 (command key module). Pet. 54.

As to the “handle apparatus” limitation identified in the Petition as claim limitations 29B.1, Petitioner cites Fromm’s handgrip 14 coupled to base assembly 12 using elongated extensible support 16. *Id.* at 55–56 (citing Ex. 1008, 5:48–52, Fig. 5). In the combination with Fenton, Fromm’s handgrip 14 is coupled to Fenton’s universal device holder. *Id.* at 56 (citing Ex. 1003, Welch Decl. ¶¶ 153–154).

Petitioner next turns to the “command key” limitations identified in the Petition as claim limitations 29B.2a (“a command key that during use is selectable and corresponds to a camera feature of the mobile device”) and 29B.2b (“wherein the command key is positioned on the handle apparatus such that a user is able to, with one hand, both hold the handle apparatus and select the command key”). Pet. 17, 57. Petitioner cites Bolton’s remote control accessory having buttons/keys provided on a user interface, including a power button to turn the accessory on and off, a photo button and a record button to instruct the camera of the mobile phone take a photograph or capture video, a mode button to change the camera mode, and a preview button to enable display of a captured image. Pet. 57 (citing Ex. 1010, ¶¶ 22, 31, Fig. 1A). Noting Bolton’s explanation that a user can select input controls over user interface 222 to invoke mobile phone functionalities, Petitioner argues Bolton teaches the command key limitation identified as claim element 29B.2a because the selection of a button by a user results in a command being sent from the remote control to the mobile device. *Id.* at 57. Petitioner further notes that Bolton’s PMD includes a microcontroller or

microprocessor that executes program code to perform the various functions by establishing a wireless connection between the PMD and the mobile phone and exchanging commands and data in accordance with a protocol. *Id.* at 57–59. Petitioner notes that in Bolton PMD 202 and accessory 220 are connected by a wireless communication channel, e.g., a Bluetooth connection, such that the devices can communicate with each other and act accordingly. *Id.* For example, in the photo review mode, the accessory recognizes when a user presses the photo button and can send a CameraButtonStatus command with the CameraAction bit set, causing the camera to capture a still picture. *Id.* at 59–60 (citing Ex. 1010 ¶¶ 38–39, 57; Ex. 1003, Welch Decl. ¶¶ 162, 167).

As to claim element 29B.2b, Mr. Welch testifies that Fromm’s handheld device is configured so that a user can operate the remote control with the hand holding the handgrip and, when integrated into Fromm’s handheld, the buttons of Bolton’s user interface can be located on the top surface of the handle to facilitate the user’s one-handed operation of the mobile phone. Ex. 1003, Welch Decl. ¶¶ 158–160.

Petitioner next turns to the wireless interface module limitations identified in the Petition as limitations 29B.3a (“a wireless interface module that, during use, provides a wireless connection to the mobile device”) and 29B.3b (“wherein remote control of the camera feature of the mobile device is provided over the wireless connection”). Pet. 17, 60. As to claim limitation 29B.3a, Petitioner cites Bolton’s remote control accessory as providing communication between the handle and the mobile telephone, using WiFi or Bluetooth technology. *Id.* at 60–61 (citing Ex. 1010 ¶ 3; Ex. 1003, Welch Decl. ¶ 162). As to claim limitation 29B.3b, Petitioner argues that, integrated into Fromm’s handheld device, Bolton’s remote

control feature controls the mobile personal device, e.g., capturing still images and video, and rewind and replay. *Id.* at 61 (citing Ex. 1010 ¶¶ 22, 24; Ex. 1003, Welch Decl. ¶¶ 161–163).

Petitioner next turns to claim limitations 29B.4a (“a command key module that, during use, provides, via the wireless connection, a control command to the mobile device such that the control command indicates to the mobile device to perform the camera feature”), 29B.4b (“wherein the command key is one of a plurality of command keys positioned on the handle apparatus”), and 29B.4c (“wherein each of the plurality of command keys corresponds to a respective command”). Pet 16, 62.

Petitioner cites Bolton’s remote control including the set of buttons discussed above in which a user’s selection of a button causes a command to be sent from the remote control to the mobile phone. Pet. 62 (arguing that Bolton teaches claim limitations 29B.4b, i.e., the command key is one of a plurality of keys, and 29B.4c, i.e., each command key corresponds to a respective command).

As to claim element 29B4.a, i.e., a command key module that sends the selected command via a wireless connection from the remote to the mobile device, Petitioner notes that in Bolton when a connection is achieved, e.g., via a Bluetooth wireless connection, Bolton’s microcontroller executes programming so that devices communicate by exchanging protocol specific commands and data. *Id.* at 63–64 (citing Ex. 1010 ¶¶ 33, 38–39, 57; Ex. 1003, Welch Decl. ¶ 167).

Patent Owner does not respond to Petitioner’s arguments that Fromm, Fenton, and Bolton teach each of the limitations of claim 29. *See generally* Prelim. Resp. 21–23; PO Resp. 6–11. Having considered the evidence and arguments of record, we find that Petitioner has demonstrated by a

preponderance of the evidence that the combined teachings of Fromm, Fenton, and Bolton disclose the limitations of claim 29.

5. *Claim 37*

Claim 37 depends from claim 29 and recites “the holder, during use and using the sliding member, adjusts to hold mobile phones of various sizes.” Petitioner cites Fenton as disclosing its universal holder “may be adjusted to fit mobile devices of different dimensions.” Pet. 65 (quoting Ex. 1009, 29:3–5). We find that Petitioner has demonstrated by a preponderance of the evidence that the limitations of claim 37 are taught by the combination of Fromm, Fenton, and Bolton.

6. *Reasons to Combine Fromm, Fenton, and Bolton*

Petitioner contends that a person of ordinary skill in the art would have been motivated to use Fenton’s mobile phone holder as Fromm’s “special adaptor” for holding a phone. Pet. 47. Petitioner notes that Fromm explicitly states “if [a] camera is a picture phone, a special adaptor may be required” (*id.* at 48–49 (citing Ex. 1008, 6:31–35; Ex. 1003, Welch Decl. ¶ 143)) and argues that Fenton is such a “special adaptor” that allows a person to expand the commercial application of Fromm’s handle to devices having a variety of form factors by attaching a mobile smart phone to another apparatus (*id.* at 49 (citing Ex. 1009, 2:20–27; Ex. 1003, Welch Decl. ¶¶ 138–139)).

Petitioner further notes that both Fromm and Fenton are directed to camera holding techniques and are highly relevant to the ’627 patent’s mechanism for holding a camera phone. Pet. 49. In addition, Petitioner points out that Fenton teaches the use of a threaded bolt, similar to Fromm’s threaded stud, and a threaded nut as fastener receivers. *Id.* at 47–48 (citing Ex. 1009, 60:10–14). According to Petitioner, because Fromm uses a well-

known standardized connector, it would have been a simple matter to modify Fenton to include the standard threaded hole to couple to Fromm's stud. *Id.*

Noting that Fromm's remote control functionality is limited to certain digital/film cameras, Petitioner argues a person of ordinary skill would have been motivated to replace Fromm's remote control functionality with Bolton's remote control functionality to accommodate the additional functionalities of smartphones. *Id.* at 49–50.

The Patent Owner Response does not address explicitly the arguments concerning the reasons to combine Fromm, Fenton, and Bolton advanced in the Petition, but copies arguments from the Preliminary Response. PO Resp. 10. In its Preliminary Response, Patent Owner contended that in relying on the combined teachings of Fromm, Fenton, and Bolton, Petitioner engages in impermissible hindsight, arguing "Petitioner's approach instead appears to argue motivations to combine the three references at a general level (e.g., not tied to particular features of claims 29 and 37) to conceptualize a new, composite Fromm-Fenton-Bolton 'super-reference', and then proceeds to pick and choose at will from the separate references." Prelim. Resp. 23. The Patent Owner Response repeats these arguments. PO Resp. 11.

In our Decision to Institute we found Patent Owner's argument unavailing. Dec. to Inst. 32–33. Petitioner points out that Fromm and Fenton both are directed to techniques for holding a camera and are therefore highly relevant to each other and to the subject matter of the '627 patent. Pet. 49. Petitioner points out that Fromm, which concerns a film or digital camera, explicitly states that a "special adaptor" would be needed to accommodate a smart phone. Pet. 48–49 (citing Ex. 1010, 6:31–35; Ex. 1003, Welch Decl. ¶ 143). Petitioner cites Fenton as teaching

the special adaptor suggested by Fromm in the form of universal adjustable mount for a mobile device, such as a smart phone for attachment to another apparatus, such as Fromm's handle. *Id.* (citing Ex. 1009, 2:20–27; Ex. 1003, Welch Decl. ¶ 139). Petitioner further notes that a person of ordinary skill would recognize that the functionality for remotely controlling a smart phone differs from that required to remotely control Fromm's film or digital camera and would have been motivated to employ Bolton's methods and techniques for remote control of smartphones. *Id.* at 50.

Having considered the evidence or record, we find that Petitioner has demonstrated a person of ordinary skill in the art would have had reason to combine the teachings of Fromm, Fenton, and Bolton and that the combined teachings of these references disclose the limitations of claims 29 and 37.

E. Additional Hindsight Arguments

The Patent Owner Response advances an additional hindsight argument, asserting that "Petitioner is attempting to take an undue advantage of knowledge gained in the last decade, to allege obviousness of the claimed invention." PO Resp. 9. Petitioner responds that the Patent Owner Response "points to no instance where Petitioner or Petitioner's declarant allegedly rely on such knowledge." Pet. Reply 19. According to Petitioner, although "as Patent Owner alleges, 'a lot of advancements' may have occurred in 'the past 8-9 years' . . . , none of those advancements are reflected in the art or the arguments in the Petition, and the Patent Owner Response does not demonstrate otherwise." *Id.*

Patent Owner does not deny that the references Petitioner relies upon are prior art. We find that Petitioner has demonstrated that a person of ordinary skill would have had reason to combine the teachings of Rosenhan and Kim (Ground 2) and Fromm, Fenton and Bolton (Ground 3) and that

each of the limitations of claims 29 and 37 is taught by the asserted combinations of the references. *See also* Dec. to Inst. 28–29, 31–33.

F. Objective Considerations Raised in the Patent Owner Response

1. Long Felt Need

Patent Owner asserts that Petitioner “**over-generalizes the invention which is made from a new combination and arrangement of known elements to produce a new and beneficial result that satisfied a long felt need.**” PO Resp. 6 (emphasis in original). According to Patent Owner, Petitioner “**over-generalizes the claimed invention** as being related to a device that holds a camera phone on an end of a stick, and enables a user to wirelessly control the camera phone with the help of buttons positioned on the other end of the stick” in a manner that “is unjustified and prima facie vague.” *Id.* at 7 (emphasis in original). Without giving any examples or citing any evidence, Patent Owner contends that mobile phones with camera functionalities have been known since the late 1990s and “difficulty in clicking selfies with such camera phones have been a problem ever since, and much longer as far as clicking self-pictures from a camera.” *Id.* at 8.

Noting that Petitioner cites references from the 1980s connecting cameras to telescoping sticks and from the 1990s concerning Bluetooth operation, Patent Owner’s “over-generalization” argument attempts to redefine the scope of the invention as “selfie sticks,” stating “all the ingredients used by the IPR petition to allege the obviousness of the claimed solution were well known even much before the existence of the problem, i.e., difficulty in clicking selfies with camera phones.” PO Resp. 8. Patent Owner argues:

Even with the problem and the ingredients for a solution already known for a very long time (as alleged in the IPR petition), it

took almost 15 years for someone to think of this invention. It is not apparent to the undersigned what took experts (or ordinarily skilled persons for that matter) so long to arrive at a solution of this long existing and very common problem, particularly when the solution is a new combination of known elements which produced a new and beneficial result that satisfied a long felt need. This can only be because, at the time of the invention, the claimed solution was not as obvious as alleged by the IPR petition, in that, it is not merely a combination of teachings of a stick, a mounting means, and a wireless control. Thus, the alleged over-generalization of the claimed solution and obviousness allegations thereon are unjustified and prima facie vague.

Id. at 8–9.

Patent Owner further argues commercial factors, stating that it engineered, designed, tested, and manufactured its HandlePa product, producing 11,550 units, but, because Patent Owner could not gain a foothold when cheap, similar products flooded the market, “we continued to focus on securing the patent rights to the invention at the USPTO.” PO Resp. 3.

According to Patent Owner:

when considering the global commercial success of the modern selfie sticks, which became common a year or 2 after we began reducing our invention to practice. It would therefore be clear to anyone with reasonable thinking that the modern selfie sticks (modeled after our invention) solved a long felt need for a solution to a very commonly faced problem.

Id. at 8. Petitioner points out that, although Patent Owner seeks to redefine “modern selfie sticks” as “modeled after our invention” the evidence of record offers no evidence to support Patent Owner’s assertions. Pet. Reply 11.

Petitioner argues Patent Owner shows no long felt need for the following reasons: (1) although the ’627 patent describes using its one-handle interface in conjunction with an iPhone interface, nowhere does it

describe taking “selfies,” nor does it describe the invention as a selfie stick (Pet. Reply 11–12); (2) the iPhone product referenced in the ’627 patent application, filed in late 2012, did not offer a front facing camera for taking “selfies” until 2010 (*id.* at 13 (citing Ex. 1022, 91; Ex. 1047)); (3) in November 2011, the year after releasing its first iPhone with a front facing camera, Apple implemented a feature allowing its cameras to be controlled wirelessly using Bluetooth (*id.* at 13–15 (citing Ex. 1024, 2)) and, similarly, a number of other publications predating Patent Owner’s earliest application date disclosed wireless control in conjunction with a handle or stick for holding a mobile device or camera (*id.* citing Pet. 28–30 (discussing Rosenhan), 35–36 (discussing Kim), and 47–47 (discussing Bolton)); and (4) Patent Owner’s assertion of long felt need for “selfie” capability contradicts Patent Owner’s prior testimony that the problem solved by the claimed invention came about in 2011/2012 when the sizes of smartphones increased substantially and more and more users began using them for taking pictures instead of conventional cameras (*id.* at 15 (quoting Ex. 2001, Maalouf Decl. ¶ 6)).

2. *Commercial Success*

Petitioner also argues that Patent Owner demonstrates no commercial success, notwithstanding its assertions concerning the global success of modern selfie sticks. *See* Pet. Reply 16–19. Petitioner notes that Patent Owner does not identify actual sales of the HandlePa product. *Id.* at 17. Petitioner further notes (1) that Patent Owner fails to establish a connection between himself (or his predecessors in interest) and a YouTube video attributed to OONO that Patent Owner asserts describes HandlePa as practicing the claimed invention and (2) that the YouTube video had been viewed only 88 times (including views by Petitioner’s counsel and

paralegal) in the period from October 13, 2014, to February 21, 2021. *Id.* at 16–17 (citing Ex. 1049, Declaration of Arie Pellikaan (“Pellikaan Decl.”) ¶ 3, App. A). Petitioner also notes that Patent Owner provides no evidentiary support that any of the similar products that allegedly flooded the market before its patent issued practice any of the claims of the ’627 patent. *Id.* at 18.

3. *Analysis of Objective (Secondary) Considerations*

“In order to accord substantial weight to secondary considerations in an obviousness analysis, the evidence of secondary considerations must have a nexus to the claims, i.e., there must be a legally and factually sufficient connection between the evidence and the patented invention.” *Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366, 1373 (Fed. Cir. 2019) (internal quotations omitted). “[T]here is no nexus unless the evidence presented is ‘reasonably commensurate with the scope of the claims.’” *In re Affinity Labs of Tex.*, 856 F.3d 883, 901 (citing *Rambus Inc. v. Rea*, 731 F.3d 1248, 1257 (Fed. Cir. 2013) (quoting *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011))).

Patent Owner’s arguments concerning long felt need and commercial success are in the context of “selfie-sticks.” Patent Owner’s generalized arguments about long felt need and accusations concerning commercial success are not tied to the limitations of the claims. We again turn to the language of the claims. Notwithstanding Patent Owner’s redefinition of the problem as “difficulty in clicking selfies with camera phones,” independent claim 29 does not recite such a limitation. Claim 29 is drawn to a handheld device to wirelessly operate a camera of a mobile device; the handheld device includes a handle coupled to a holder that holds the mobile device during use; the handle includes a command key positioned on the handle for

one-handed selection by the user to provide, over a wireless connection, control commands to the mobile phone's camera feature. As discussed above, the references cited by Petitioner demonstrate that such devices were well known before Patent Owner filed the Chinese application that is the basis of the '627 patent's foreign priority claim. Claim 29 does not limit the camera feature to a "selfie" feature, e.g., a feature that activates the lens to focus on the photographer. Patent Owner has not established a nexus between the subject matter of the claims and its long-felt need or commercial success arguments.

Even if Patent Owner had established such a nexus, the evidence before us does not establish a long felt need. Patent Owner offers no evidence concerning the introduction of "selfies." As Petitioner points out, there was no need for a selfie stick until the ability to take a selfie came into existence in 2010, and by 2011, it was known to control the camera functions using wireless Bluetooth techniques. Pet. Reply 11–14. Both of these events occurred before Nov. 28, 2012, the filing date of Chinese patent application to which the '627 patent claims priority. Ex. 1001 (code 30).

Similarly, Patent Owner's generalized arguments concerning the popularity of selfie sticks do not tie the success of any specific product to the claims of the '627 patent. To the extent selfie sticks became popular products, Patent Owner has introduced no evidence that their popularity was in any way tied to the claims of the '627 patent, which issued in November 2016.

For the reasons discussed above, we find that Patent Owner has not demonstrated that the asserted objective indicia of nonobviousness weigh against our conclusion that the claims would have been obvious.

G. Other Issues Raised by Patent Owner

1. The Effect on the Economy

Patent Owner contends that the Decision to Institute *inter partes* review did not include a “required analysis of economic factors.” PO Resp. 22 (citing 35 U.S.C. § 316(b)). According to Patent Owner, “instituting trial statistically leads nearly always to cancellation of challenged claims, after a proceeding that on average costs a patent owner over \$450,000” and “cause[s] Chinese manufacturers not to pay licensing fees into the United States that they otherwise would be obligated to pay.” *Id.* at 21–22. Patent Owner further states “cancellation will likely occur not because it is inevitably correct, but because Petitioner is able to start an administrative process with no upside for Patent Owner that Patent Owner cannot afford to defend to the fullest.” *Id.* at 22. Patent Owner does not present evidence or otherwise address the effect on the economy. *Id.* at 21–23.

The claims of a patent define the scope of the invention and serve to put the public on notice of the subject matter that is covered by the patent. For this reason, our analysis focuses on the subject matter recited in the claims.

Patent claims cannot be a moving target. As discussed above, Patent Owner has attempted to redefine the invention to include features not found in the claims. One example is Patent Owner’s argument that remote control means some kind of non-fixed or loose operation, although the claims recite the mobile device is held on the holder attached to the handle when in use. Another example is Patent Owner’s attempt to redefine the invention as a selfie stick, although that feature is not recited in the claims. The U.S.

patent statutes do not authorize us to extend patent protection to features that are not recited in the claims.

Each case that comes before us is an individual matter, decided solely on its merits. The scope of our review is the patentability of the claims, as it is the claims that set forth the limits of the patent grant. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc). To the extent that other avenues exist to protect Patent Owner’s products or unpatentable technology, such matters are beyond our purview. As discussed above, the claims in this case recite subject matter that is not entitled to patent protection. We do not have the authority to waive the statutory requirements.

2. *Expert Testimony*

Patent Owner asserts that, based on his own experience, he can provide “an equally persuasive ‘expert’ argument for non-obviousness.” PO Resp. 9–10. Patent Owner fails to recognize that, although we can consider Patent Owner’s views, as an interested party, Patent Owner’s “expert opinion” is of less probative value than if it were from a neutral party.

3. *The Qualifications of the Panel and Other Cases*

Patent Owner’s arguments against the integrity and competency of the individual members of the panel and his suggestion that he will not receive a fair hearing (PO Resp. 13–14, 23) are not germane to the merits of this case, and we decline to address them further.

Patent Owner's assertions concerning other cases, including *Apple v. Iancu*⁴ and *Arthrex*⁵ are not germane to the matters at issue in this Decision, and we do not address them further.

4. *Discretion under Section 325(d)*

Patent Owner repeats arguments from the Preliminary Response urging the exercise of discretion to deny institution because the Office had considered the same or substantially the same prior art previously. PO Resp. 11–12. We fully addressed this issue in the Decision to Institute and declined to exercise discretion to deny institution. Dec. to Inst. 18–19. At this stage of the proceeding, the issue is moot.

VII. CONCLUSION⁶

Having considered the evidence and arguments of record, we conclude that Petitioner has demonstrated by a preponderance of the evidence that challenged claims 29 and 37 are unpatentable. In particular, Petitioner has demonstrated by a preponderance of the evidence that claim 29 is unpatentable under 35 U.S.C. § 103 over Rosenhan, that claim 37 is

⁴ Case No. 5:20-CV-06128-(N.D. Ca).

⁵ In addition, we do not reach Patent Owner's Appointments Clause challenge because the Supreme Court has resolved the issue. *See United States v. Arthrex*, 141 S. Ct. 1970, 1986–87, 1997 (2021)..

⁶ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. § 42.8(a)(3), (b)(2).

unpatentable over Rosenhan and Kim, and that claims 29 and 37 are unpatentable under 35 U.S.C. § 103 over Fromm, Fenton, and Bolton.

In summary:

Claims	35 U.S.C. §	Basis	Claims Shown Unpatentable	Claims Not shown Unpatentable
29	103	Rosenhan	29	
37	103	Rosenhan, Kim	37	
29, 37	103	Fromm, Fenton, Bolton	29, 37	
Overall Outcome			29, 37	

VIII. ORDER

In consideration of the above it is:

ORDERED that claims 29 and 37 are unpatentable; and

FURTHER ORDERED that that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2020-00483
Patent 9,503,627 B2

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