

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROKU, INC.,
Petitioner,

v.

ECOLINK INTELLIGENT TECHNOLOGY, INC,
Patent Owner.

Case No. IPR2023-00792
Patent No. 10,692,340

PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE

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LISTING OF EXHIBITS

Exhibit	Description
1001	U.S. Patent No. 10,692,340 (“’340”)
1002	File History of U.S. Application No. 16/200,172, which led to U.S. Patent No. 10,692,340 (“’340 Application”)
1003	Declaration of Bruce McNair (“McNair”)
1004	U.S. Patent Application No. 15/946,511
1005	U.S. Patent No. 10,497,230
1006	U.S. Patent Application No. 14/629,370
1007	U.S. Patent No. 9,940,797
1008	Redline Comparison – Specification of U.S. Patent No. 10,497,230 compared to Specification of U.S. Patent No. 10,692,340
1009	U.S. Patent Application Publication No. 2016/0247370 (“Lamb”)
1010	U.S. Patent No. 6,057,764 (“Williams”)
1011	U.S. Patent No. 7,696,873 (“Sharma”)
1012	Transcript of Deposition of James Parker (April 10, 2024)
1013	U.S. Patent Application Publication No. 2013/0257611

I. INTRODUCTION

The '340 patent is directed to a security system including a control panel and sensors for monitoring at least one security barrier. '340, claims 1, 6, 11, 16. The embodiment of claims 1 and 11 recite a barrier alarm device housing two sensors to monitor a security system barrier (door, window, etc.) along with a processor.

Id. Upon actuation of the two sensors together—indicating both human movement internal to a premises at the location of the security barrier, and a detected breach of the barrier—the processor of the barrier alarm device generates a control signal for transmission to a system security panel. *Id.* These claims label that control signal a “timed alarm signal” because it initiates a security panel timer that, if not cancelled prior to expiration by an authorized user (presumed to be present by virtue of the detected internal movement), triggers a security response (e.g., audible alarm siren). Claims 6 and 16, on the other hand, require processing functionality be performed at a central security panel that receives raw data such as a “first alarm signal” from individual sensors of a barrier alarm device.

Prior to institution, PO insisted that the “alarm” aspect of “timed alarm signal” meant that the signal itself must indicate an alarm condition. Paper 7 (“POPR”), 15. In rejecting PO’s construction, the Board correctly explained that if the signal itself indicated an alarm, the remainder of the claim relating to the timer operation would be rendered meaningless. Paper 8 (“ID”), 9-10. The Board also

emphasized that the independent claims recite timer initiation only, and that it is only the dependent claims that recite alarm indication. ID, 10. In its institution decision the Board invited the PO to reconcile its conflicting claim construction argument in its trial brief. *Id.*

PO's trial brief wisely abandons its conflicting construction. Paper 13 ("POR"), 14-30.

Now PO attempts to rewrite the Board's institution decision to support a new army of claim language-related strawmen that are completely disconnected from the actual IPR grounds.

Challenged claims 1-2, 6, 11-12, and 16 should be cancelled as unpatentable.

II. '340 PATENT – INITIATING A SECURITY PANEL TIMER

The '340 is directed to systems and methods for differentiating the security response of a barrier alarm system. *See* Pet., 9-11. It discloses a **barrier alarm device 104** comprising a **barrier status detection device 306** and a **human detection device 304**. '340, 8:27-31. **Barrier status detection device 306** monitors the status of a **barrier** and determines whether it is open or closed. '340, 8:60-9:2. **Human detection device 304** monitors for the presence of a human. '340, 9:3-12; Pet., 9.

Claims 1 and 11 are directed to an embodiment in which the barrier alarm device comprises "a **barrier status detection device** for indicating that a barrier ... has been opened" and "a **human detection device** for indicating that a human being

is inside a premises” and the barrier alarm device “transmit[s]” a timed alarm signal “only when it is determined that the **human detection device** indicates that the human being is inside the premises in proximity to the barrier.” ’340, Fig. 2. The timed alarm signal initiates an alarm panel timer that triggers upon expiration (if not cancelled). ’340, 2:40-48, 4:10-20, 16:54-57; *see also* EX2003, ¶39; POPR, 3, 7 (barrier alarm device will transmit timed alarm signal to receiver associated with security panel only when it is determined a human being is inside the premises proximate the barrier); Section IV.E.

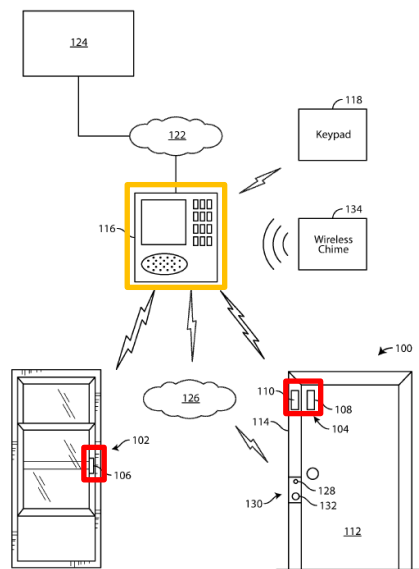


FIG. 1

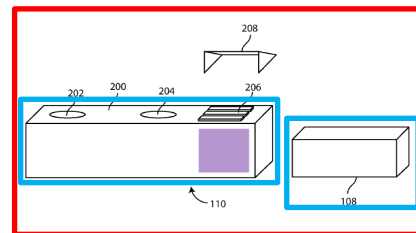


FIG. 2

’340, Figs. 1-2 (color added).

Claims 6 and 16 recite a **central security panel** that is responsive to the status of both the **barrier status detection device 306** and the **human detection device 304**.

'340, 9:62-65, 15:66-16:20. If the **central security panel** receives a signal from **barrier status detection device 306** of a door/window being opened, *the central security panel determines* whether a human being has been indicated inside and proximate the door/window prior to starting its own timer. *See* claims 6, 16.

III. PO OFFERS NO ACTUAL REBUTTAL OF THE IPR GROUNDS

PO's claim construction arguments that follow are irrelevant to the trial grounds as there is no reliance in the petition (or by the Board) on a generic signal to meet the claimed "timed alarm signal." The combined teachings relied upon in the Petition as meeting a timed alarm signal initiate a timer of a security panel in response to an open barrier and detected humans in proximity to that barrier precisely as claimed.

IV. THE BOARD CORRECTLY ADDRESSED "TIMED ALARM SIGNAL" AT INSTITUTION

A. "Timed" Has Meaning

PO sets up a strawman argument by doctoring the term "timed alarm signal" to remove "timed." From that contrived starting point, PO launches into an attack on the Board's Institution Decision construction as somehow being "simply a 'signal'" (POR, 15). The Board's complete construction—"a signal in an alarm system *'for initiating a timer* associated with the security panel'" (ID, 11)—gives meaning to "timed" because the signal is "for initiating a timer" associated with a security panel of the alarm system. Indeed, the Board expressly cited claims 1 and

11, which recite that “the timed alarm signal’s purpose is to initiate a timer.” ID, 9.

PO simply ignores the Board’s actual construction in building its strawman, arguing that if “timed” is somehow removed, the term is then transformed to “alarm signal.” From there, PO launches into a 40+ page (POR, 14-60) discussion of how various signals of the ‘340’s alarm system are not a “timed alarm signal.” This entire 40+ page discussion can be ignored as plainly irrelevant to the actual record. The construed claim term is “*timed alarm* signal” and the Board gave meaning to the entire term, as is clear from the Institution Decision at 9-11. The Board construed “timed alarm signal,” to mean “a signal in an alarm system ‘for initiating a timer associated with the security panel.’” ID, 11. PO nowhere applies the Board’s actual construction anywhere in its 62-page brief.

B. “Alarm” Was Not Ignored or Rendered Superfluous

Contrary to PO’s argument that the Board somehow failed to address the meaning of “alarm” in the phrase “timed alarm signal,” or rendered it superfluous, in fact, the Institution Decision explains that, as construed, “an ‘alarm signal’ at least is limited to *signals transmitted by an alarm device.*” ID, 9 (emphasis added). And, in context of the complete phrase “timed alarm signal,” is an alarm signal that is transmitted by the alarm device for initiating a timer. Furthermore, the Board explained that the term does not need to, nor does it, describe the

device's entire operation: "*other claimed features define how the timer and human-detection device trigger the alarm condition*." ID, 9-10 (emphasis added). PO's argument that the Board gave no meaning to "alarm" (POR, 15), is plainly false.

C. Specifying "Alarm" is Not Redundant Because the Barrier Device Timer May/May Not Trigger An Alarm

Having established its strawman by removing "timed" from the complete term "timed alarm signal", PO then attempts a sleight of hand by injecting the full term back into the conversation, arguing it would be redundant to construe "*timed* alarm signal" as any signal in an alarm device. POR, 16. Again, the Board offered no such construction.

In claim 1, the timer is "associated with the security panel" of the alarm system. The Board recognized this in the Institution Decision, *e.g.*, at 7, 16, 19. As is clear from the claims, the timer operation may, or may not, lead to an alarm. *See* claims 1 and 11 (transmitting timed alarm signal to the receiver "*only*" when the human being is inside premises). Accordingly, "alarm" has meaning in the term "timed alarm signal."

D. PO's Arguments About Other Signals Are Irrelevant

PO applies its strawman premise to argue at length that the Board's "any signal" construction encompasses other signals of the '340 specification, such as bypass and status signals. POR, 18-60. These arguments are plainly without merit for the reasons noted above. *See* Section IV.A-IV.C.

E. “Timed Alarm Signal” and “First Alarm Signal” Are Different

As shown in Section II, claims 1 and 11 are directed to a dual sensor package with on-board processing (*see* '340, Fig. 2), and claims 6 and 16 are directed to central processing of raw sensor data (*see* '340, Fig. 1). Nevertheless, PO argues that “timed alarm signal” and “first alarm signal” have the same exact meaning (POR, 16-17), but they do not¹. PO offers no discussion of how different terms of the claims can be construed to have the same meaning under controlling law anywhere in its brief. *See Univ. of Texas Sys. v. BENQ Am. Corp.*, 533 F.3d 1362, 1371 (Fed. Cir. 2008). Likewise, PO’s expert recited the controlling law in his declaration, then ignored it. EX1012, 33:5-20. Regardless, there can be no such argument on this record.

PO interprets different components of its system as if they operated in the same manner when they do not. PO also ignores the plain language of the claims 6 and 16 that preclude its theories.

The term “timed alarm signal” appears in independent claims 1 and 11 and is recited as being “for initiating a timer” of the embodiment depicted in '340, Figs. 2-3, which include both sensors in one housing 200 with processing circuitry to

¹ As the art meets “timed alarm signal” regardless, this claim construction issue need not be reached. *See infra*, Section IV.F.1.b.

generate and transmit the timed alarm signal to the security panel. '340, 6:56-7:11; Fig. 2. This is the only arrangement where a barrier alarm device generates the timed alarm signal as otherwise the output of individual sensors (e.g., barrier and proximity) is processed remotely, at a control panel which includes the “brains.” '340, 8:15-20; EX1012, 14:2-3 (“116 is the central control panel, so-called brains of the systems”).

Conversely, claims 6 and 16 are directed to a “central security panel” that provides centralized processing for separate sensors. These claims recited that the panel processor performs all recited processing functionality, and thereby tracks the embodiment of Fig. 1 wherein a central security panel receives 116 “raw data” from discrete sensors. *See* '340, 5:54-58 (panel receives and interprets “raw data” from sensors). Claims 6 and 16 recite a “first alarm signal” that is “indicative of the barrier being opened”—but not including the human proximity status. *See, e.g.,* '340, 4:52-54. Separately, the processor of the central security panel *responds to the first alarm signal* to determine whether a human being has been indicated to be inside the premises.” Claim 6; *see also* claim 16. By the plain language of the claims, the first signal cannot be the “timed alarm signal” as the determination of a human being inside the premises is made by the processor of the control panel *responsive to the reception* of the first alarm signal. There is no dispute that the first alarm signal itself does not convey the information necessary to start a timer

(i.e., that an authorized human is in proximity to the barrier). The timer operation of claims 6 and 16 is only started “when it is determined that the human being has been indicated.” The recited “first alarm signal” of claims 6 and 16 is nothing more than a raw input of a barrier alarm device to a processor of the control panel to identify whether a window or door has been opened. This is why the first alarm signal is recited by claims 6 and 16 as being “indicative of the barrier being opened,” and not, like the “timed alarm signal” of claims 1 and 11 (which is generated by considering both barrier and proximity inputs) recited as being “for initiating a timer.”

Trying to defend PO’s “one-size-fits-all” approach to disparate claim terms, PO’s expert speculated at his deposition that the claimed “first alarm signal” starts a timer that would later be cancelled upon determining that a human was not present. Tellingly, PO’s expert could not cite any basis in the ‘340 specification for this speculation, nor reconcile the exact opposite recitations in claims 6 and 16 (i.e., “**when it is determined** that the human being has been indicated”); EX1012, 49:24-50:14.²

² Yet another flip-flop from PO’s POPR filing: “The barrier alarm device will **transmit** a timed alarm signal to a receiver associated with a security panel **only**

F. Ground 1: Lamb as Modified by Williams

1. Overview of Ground 1

Lamb, compared to the '340, teaches the very same two sensors, the very same physical arrangement of the two sensors, the very same dual actuation scheme of the sensors, and the very same control signal generation and transmission. *Compare* EX1001, Fig. 1, 8:4-26 *with* EX1009, Fig. 1, [0029]-[0031].³

Ground 1 only relies on **Williams**' control panel timer disclosures. Pet., 29-33. Modified by of **Williams**' timer teachings, **Lamb**'s control signal (formerly used to signal a bypass control) initiates a conditional alarm timer. *See* Pet., 17-19, 29-33. The modified control signal initiates a control panel timer for the very same purpose and functionality recited in the '340's, *i.e.*, "initiating a timer" associated with the security panel." *See* Pet., 29-34 (citing Williams, 3:56-4:3 (timer "establish[es] a period of time ...within which an authorized response must be received"); Fig. 2 (showing "initialize timer" in response to motion detection);

when it is determined that a human being is inside the premises in proximity to the barrier. POPR, 7-8 (emphasis added).

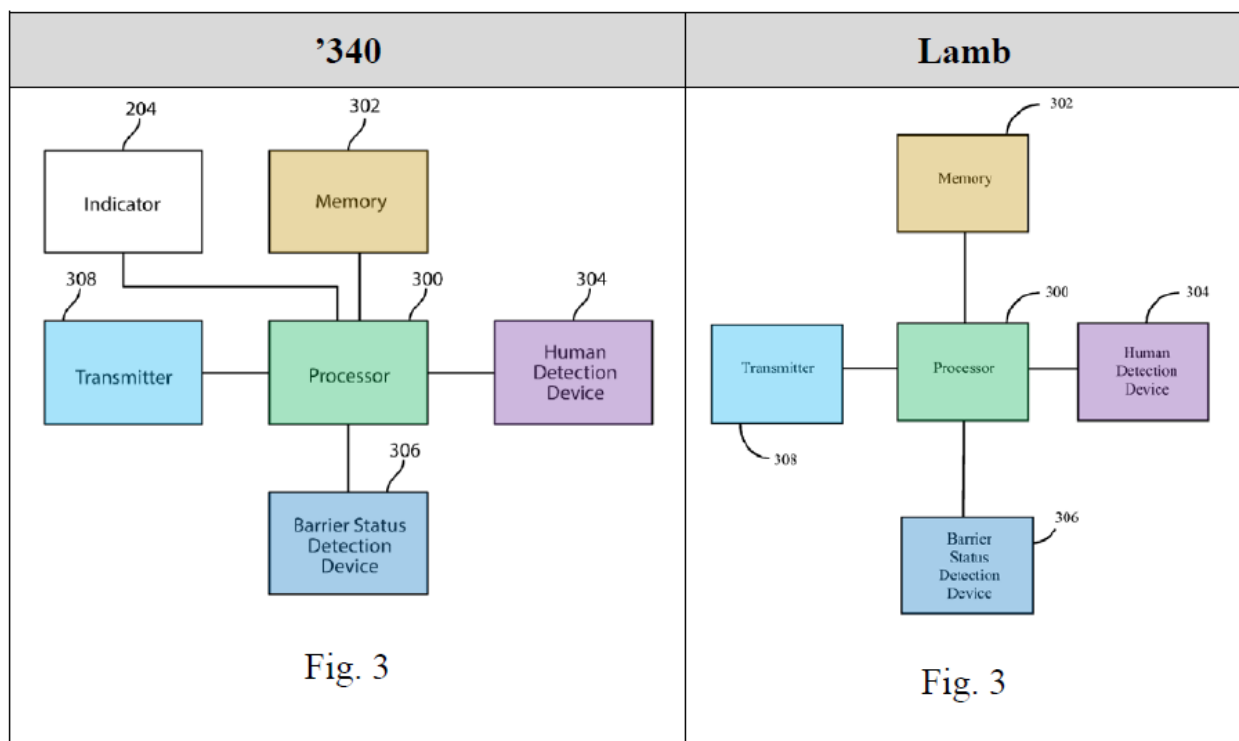
³ The '340 was filed as a continuation-in-part of a divisional of **Lamb** (U.S. Application 14/629,370). **Lamb** and the '340 share the same description for the features described.

1:64-2:8; 3:9-38; 3:49-4:39 (determining whether timer has timed out); 7:43-63; claim 1 (“signal indicative of a potential alarm”).

Thus, **Lamb**’s existing transmission is modified to actuate a timer control also provided by Williams.

a. Lamb – A Two Sensor Bypass Control

Lamb discloses a **barrier alarm device** including processor 300 coupled to memory 302, **human detection device 304**, **barrier status detection device 306**, and transmitter 308, each configured to perform the same or similar functions as in the ’340. Pet., 14 (citing Lamb, Fig. 3, [0030]-[0037]). Compare Fig. 3 of the ’340 with Fig. 3 of **Lamb**:



Pet., 14.

Lamb's system is responsive to both the barrier status detection device 306 and the human detection device 304. For example, processor 300 responds to an indication from barrier status detection device 306 that a door is open by determining whether human detection device 304 indicates a human inside. Pet., 14-15 (citing Lamb, [0037], [0040], [0058]-[0059]). With respect to claims 1 and 11, detecting a human inside indicates "an authorized person ... opened the barrier," and the barrier alarm device transmits a "bypass signal" to central security panel 116, which may ignore future alarm signals, disarm the system, and/or transmit notifications. Pet., 15 (citing Lamb, [0029], [0040], [0050], [0058]-[0061]). If no human is detected inside the premises, the barrier alarm device transmits a message to central security panel 116 to initiate an immediate alarm signal. Pet., 15 (citing Lamb, [0037], [0041], [0051]-[0053]; McNair, ¶49).

Respecting claims 6 and 16, **Lamb** teaches an embodiment in which the barrier detection device monitors and detects whether a barrier has been opened. Pet. 47 (citing Lamb, [0043]). Then, "central security panel 116 responds to a signal indicating a barrier being opened...by determining the last known state of human detection device 304." Pet. 47-48 (citing Lamb, [0043]).

b. Williams – (Timer) Confirm Authorized User

Williams teaches a control panel 17 that, upon receiving signals based on activation of door alarm switch 13 or motion detector 14, initializes a timer and waits for reception of an authorization code from an authorized personal device. Pet., 17 (citing Williams, 3:49-4:39). If the timer expires before an authorized code is received, an alarm is triggered. Pet., 17 (citing Williams, 1:64-2:8, 4:32-39). Accordingly, Williams discloses a timed alarm signal because the signal from control panel 17 to initialize a timer causes a security response upon expiration (absent receipt of the authorized code). Pet., 17, citing McNair, ¶51.

c. Motivation to Combine

The Petition explains a POSA would be motivated to modifying **Lamb** using **Williams**' teachings to confirm a person is authorized to address a potential weakness of **Lamb** (*i.e.*, reliance on assumed authorization). See Pet., 17-18; *infra* Sections IV.F.3.a, IV.F.4.

2. Combination Renders Obvious All Limitations

PO presents four arguments that, it alleges, show certain limitations are not met. As explained below, all limitations are met.

a. Combination of References

PO's argument that the combination fails to teach a timed alarm signal ignores the combination in the petition. POR, 31-34. The failure is notable because the Board, in the Institution Decision, identified a similar error in PO's POPR argument that the Petition did not identify a disclosure in Williams of

transmitting “*any* signal ...from a **barrier alarm device** to a security panel.” POPR, 27. Disagreeing, the Board reminded PO that the Petition relies on, “a combination of **Lamb** and **Williams** to address the Timed Alarm Signal Limitations” and, “[i]n the proposed combination, **Lamb**’s transmitter sends an alarm signal to **security panel 116**.” ID, 18 (citing, Pet 25).

PO again ignores **Lamb**’s disclosures. POR, 32-35. PO argues the Petition does not show that **Williams** transmits an “timed alarm signal” because “Petitioner ascribed no meaning to the term ‘alarm.’” POR, 32. This is just a retread of PO’s failed claim construction argument about “alarm.” *See* Section IV.B. The ground PO ignores is simple: There is a control signal sent by **Lamb**. Pet., 25-29.

Williams teaches a control signal to start a timer. Pet., 29-34. PO doesn’t dispute either. POR, 33-35. The ground modifies the **Lamb** control signal to start a timer, as taught by **Williams**. Pet., 28-29. PO does not address the actual IPR ground.

PO attacks the references individually arguing **Lamb** does not transmit a timed alarm signal and **Williams**’ barrier alarm signal is only related to motion detection. POR, 32-33. But, as the Board correctly recognized at institution, arguing **Lamb** does not transmit a timed alarm signal is irrelevant to the combination as **Lamb**’s control signal is modified by **Williams** to initiate a timer. ID, 18-19; *see also* Pet., 28, quoting Williams, 2:35-38. Specifically, **Williams** discloses that, after timer timeout, and absent an authorized response, “the control panel sets an alarm in

indicate an intrusion.” McNair, EX1003, ¶71; *see* Pet., 29-30, Williams, Fig. 2, 4:29-32 (“Setting of the alarm latch ...is equivalent to the motion detector detecting motion in an alarm system which does not have the present invention.”).

PO’s further argument—that “any signal [] transmitted to the control panel” is just a “status signal” (POR, 33-34)—is another argument about **Williams’** signals irrelevant to the ground. Whether or not **Williams** contemplates status signals distinct from alarm signals (POR, 33-34), the ground is based on **Lamb’s** control signal.

b. Claims 6 and 16

PO argues **Lamb** does not disclose a “first alarm signal indicative of the barrier being opened.” POR, 35-36. PO refers to discussion of the timed alarm signal to argue that “first alarm signal” is also not met.

PO’s argument rests on misunderstanding the claims. The first alarm signal is different from the timed alarm signal, as discussed in Section IV.E.

c. Timer Exceeds

PO alleges that **Williams’** countdown never “exceeds” a predetermined time because the countdown stops at the end of the predetermined time. POR, 38-39.

PO’s timer argument is not supported by the ’340 disclosure, which never describes a timer counting beyond a predetermined time limit. The ’340 merely states that the central security panel will “determine ...that the elapsed time has

exceeded a predetermined time.” ’340, 2:34-36. No implementation details are explained in the ’340, let alone recited in the claims.

Regardless, a timer counting to ten seconds triggers a response only *after* 10 seconds have elapsed, expired, or been exceeded.

d. Immediate Alarm Signal

Claim 2 recites, in part, “instructions that cause the **barrier alarm device** to transmit ...an immediate alarm signal to the receiver for causing a security response to be initiated ...” Claim 12 also recites an immediate alarm signal. PO largely takes issue with the definition as containing “transmitted” without acknowledging that claims 2 and 12 also require transmitting the immediate alarm signal. In any event, **Lamb’s** disclosure is the same supporting description to the ’340. *Compare* Lamb, ¶[0053] *with* ’340, 13:6-13, *see* Pet., 15. This argument is baseless.

3. Motivation to Combine

a. Petition Meets Even the TSM Standard

Contrary to PO’s argument that the motivation to combine is some generic interest in security, Petitioner explains that modifying **Lamb** using **Williams’** teachings to confirm whether a detected person is authorized (rather than assuming a person within the building is authorized) addresses a specific potential weakness of **Lamb** (i.e., reliance on assumed authorization).

The Petition demonstrates motivation to combine from the references themselves, explaining a POSA would have “been motivated to verify—and not assume—that a potential alarm was triggered by an authorized person.” Pet., 18, *also id.*, 17-19, 28-33 (citing *Williams*, 2:35-38, 7:43-63 (discussing advantages of **Williams** for “conventional [security] systems”). Accordingly, Petitioner shows motivation even under the stricter teaching, suggestion, and motivation standard. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007).

b. PO Argues Against Its Own Disclosure

Petitioner’s argument that a POSA would not modify **Lamb** to confirm that a detected person is authorized (POR 45-46), as taught by **Williams**, amounts to arguing against PO’s own disclosure. *See* EX1001, 5:65-6:16 (confirming authorized person by entering code); 17:20-28 (authorized person enters cancellation code). Moreover, **Williams** motivates the modification by explaining that security is increased by confirming a detected person is authorized. Pet., 28 (citing *Williams*, 2:35-38). PO’s argument that a POSA would have eliminated **Lamb’s** motion detection inside the premises, near the barrier, in view of **Williams** (POR, 46) is plainly incorrect given that **Williams** also uses motion detection inside the premises and explains that “[t]ypical household and commercial alarm systems employ numerous motion detectors as a way of ensuring that any intruder will be detected as he moves about, regardless of how

the premises were entered...” Williams, 1:12-16; *see also* 2:66-3:3 (“each room may have a corresponding motion detector”).

c. Differences Between Lamb and Williams Are Irrelevant to the Proposed Combination

Petitioner’s argument that **Lamb** and **Williams** have differences in operation (POR, 47-49) is beside the point. A POSA “need not see the identical problem addressed in a prior art reference to be motivated to apply its teachings.” *Cross Med. Prods. v. Medtronic Sofamor Danek*, 424 F.3d 1293, 1323 (Fed. Cir. 2005) (reference itself “provided sufficient motivation”). Moreover, “obviousness is determined based on what the combined *teachings* of the references,” not “physical substitution of elements.” *Omega Pats. v. BMW*, No. 2022-2012, 2024 WL 227801, *3 (Fed. Cir. Jan. 22, 2024) (internal quotation omitted). **Lamb** and **Williams** are undisputed analogous art as PO does not argue to the contrary. POR, 47-49.

d. Remote Controls are not Superfluous

PO’s argument that adding **Williams**’ remote to **Lamb**’s system of deactivation for people inside the premises would be “superfluous, redundant, and unnecessary” ignores the utility provided by remotes in providing an alternative for accessing the system. PO’s argument amounts to another strawman: that **Lamb**’s approach to authorization would be removed. POR, 45-47. In fact, there is no

argument to eliminate any features from **Lamb**—thus, **Lamb’s** approach would remain available to a user.

Regardless, a POSA would perceive advantages to remote controls. A related application of PO’s observed in this exact context that, “[i]t is often inconvenient for the occupant to disarm the system, as the central controller and the door or window of interest *may be located a great distance from one another.*” EX1013, U.S. 2013/0257611, ¶[0005] (emphasis added).

e. Alleged Benefits/Drawbacks are Unsupported Speculation of Misuse

PO alleges drawbacks to a system according to **Lamb-Williams**, but none defeats obviousness. Petitioner need not “show that a combination is ‘the *best* option, only that it be a *suitable* option.” *Intel Corp. v. Qualcomm Inc.*, 21 F.4th 784, 800 (Fed. Cir. 2021) (emphasis original).

PO’s argument that **Williams** fails to enhance security to PO’s subjective satisfaction or has alleged drawbacks when misused (POR, 49-50) is irrelevant to the obviousness inquiry and unsupported by the record.

PO’s speculation that carrying a personal device would be “a major inconvenience” or that visitors and guests would misplace or forget the personal device (Pet., 51-53) ignores the more pressing “inconvenience” of an insecure system. And, once again, this argument directly contradicts representations PO makes in its own filings when it explains that accessing the central controller may

be inconvenient because “the central controller and the door or window of interest *may be located a great distance from one another.*” EX1013, ¶[0005] (emphasis added). A remote-control device would mitigate this issue as is commonplace in the electronic arts. Moreover, guests are easily addressed: **Lamb** explains that “[m]ost security systems offer a ‘home’ arming feature” in which occupants are “able to move around within the home without causing motion sensors to alarm” (**Lamb**, ¶[0005]) and **Williams** provides that the system may be disabled, for example, when guests are present (Williams, 5:17-22).

Contrary to PO’s argument that battery life would defeat use of a personal device (POR, 54-55) ignores the ’340 patent’s own use of batteries in various embodiments. ’340, 6:56-59, 8:45-49, 21:36-61, 23:6-12.

PO argues that RFID devices would be impractical (POR, 55-56), which is wrong, but in any event simply ignores other options taught by **Williams**. Williams, 1:54-63-67, 2:9-10, 3:9-17, 3:43-48. In any event, tradeoffs are a design consideration, not an obviousness distinction. *Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373, 1381 (Fed. Cir. 2023).

f. Williams Other Arrangements are Immaterial to the Proposed Ground

PO’s argument that **Williams** includes other embodiments and teachings for the personal device (POR, 48) is irrelevant to the ground asserted in the petition.

4. **Lamb (No Timer) and the '340 Patent (Timer) Both Assume Authorization**

PO argues that a POSA would not modify **Lamb** (arguing it assumes authorization of users) to include a timer for purposes of confirming authorization. But the '340 makes exactly the same “assum[ption] that the person is authorized.” See EX1001, 4:24-25. PO is once again talking out of both sides of its mouth.

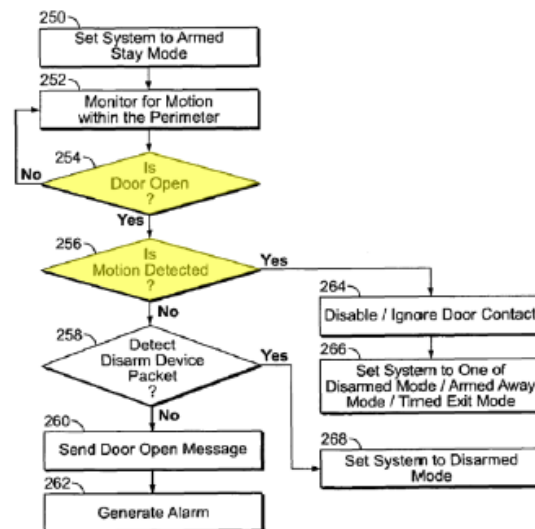
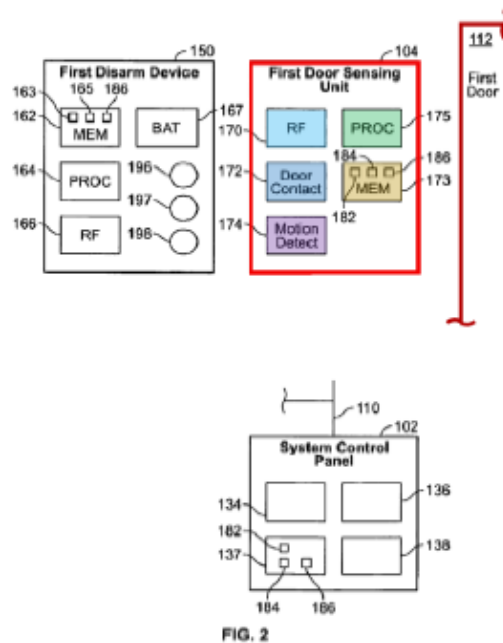
Modifying **Lamb** (also authorization assumed) changes nothing, it simply confirms the assumption for added security.

Finally, the ground is based on **Lamb**, modified in view of **Williams** as addressed above. **Williams'** operating principles are not relevant to that analysis.

G. **Ground 2: Sharma – Two Sensor Control Signal for Initiating a Timer**

PO spends a single page of its trial brief on Ground II. Further arguments are now waived. See Scheduling Order, Paper 20, 9 (“any arguments not raised in the response may be deemed waived”). Its one-page argument is that Sharma does not disclose or suggest the claimed “timed alarm signal” limitation. POR, 60-61. But the argument assumes Sharma’s signal (timed exit mode signal) is somehow akin to the '340’s “bypass signal” despite that it starts a timer just like the '340, and for the same reason (to trigger an alarm upon expiration). That Sharma may ignore sensor input at a certain point is no distinction as the '340, again, *does the exact same thing*. EX1012, 50:19-51:4.

As explained in Ground 2, **Sharma’s** “processor 175 transmits signals to a receiver of ‘system control panel 102,’ over network 110, to enter a ‘Timed Exit Mode.’” Pet., 67-71 (citing Sharma, Figs. 2 and 5, 8:6-12 (“the processor 175 may send a signal to the system control panel 102 ... [T]he system 100 may enter a Timed Exit Mode for a predetermined amount of time, such as 30 seconds. ... After the predetermined amount of time has elapsed, the system 100 is reset to the Armed Stay Mode, continuing to provide protection from intruders.”)).



See Pet., at 57-59.

Sharma also describes a “Timed Exit Mode” that “allows people to leave ... without having to interact with the system 100.” Pet., 59 (citing Sharma, 8:19-21). “In Timed Exhibit Mode, the processor 175 may ignore the door control signal

and/or disable the door contact 172.” Sharma, 8:13-15. “After the predetermined amount of time has elapsed, the system 100 is reset...” or an alarm activated Sharma, 8:15-16. Accordingly, **Sharma’s** processor 175’s signals to enter a “Timed Exit Mode” constitute “transmitting a timed alarm signal to a receiver.” Pet., 67.

PO’s arguments about **Sharma** rest on a strawman argument that a bypass signal is not a timed alarm signal (POR, 61).

However, PO’s expert admitted that once the timed alarm signal in the ’340 is sent, further sensor inputs are ignored. *See* EX1012, 50:15-51:4. The claims are silent as to how further input is handled once the control signal is transmitted, so even absent Mr. Parker’s admission, this is not a distinction. *See* ’340, 29:50-53. That Sharma may ignore or bypass further sensor input does not transform a signal initiating a timer into a “bypass” signal that does not initiate a timer.

PO just concludes **Sharma** uses **Lamb’s** same bypass signal or an equivalent (POR, 61) without addressing how Sharma’s use of a timer is equivalent to **Lamb’s** bypass signal. EX1012, 50:15-51:4 (Parker admitting “[a]ny additional signals are essentially ignored”).

Accordingly, Petitioner requests the Board cancel Claims 1 and 11, under Ground 2.

V. PETITIONER’S EXPERT IS WELL QUALIFIED TO OPINE ON A TWO SENSOR/TIMER INITIATION SCHEME

Petitioner’s expert, Bruce McNair, is well-qualified to opine in view of decades of experience with sensors (including magnetic sensors/controllers as described in the patent), signal transmission, and other aspects of electrical engineering. EX1002, ¶¶6-12. The Board considered Mr. McNair’s qualifications at institution and correctly concluded he “possesses the knowledge and skill at least of an ordinarily skilled artisan.” ID, 6. PO’s Response arguments add nothing to the POPR argument. *Compare* POPR, 48-49 *with* POR, 61-62.

Additionally, PO’s call for alarm experience is irrelevant: PO fails to explain how *more* experience with home security alarm systems would undercut obviousness. Instead, additional experience would *increase* POSA’s ease in implementing prior art. *Unified Patents v. Ideahub*, IPR2020-01338, Paper 48, 12-13 (Feb. 7, 2022) (rejecting PO’s argument failing to “explain[] sufficiently how [expert’s] supporting testimony is outside [expert’s] knowledge and experience”).

VI. CONCLUSION

Petitioner respectfully requests the Board cancel all Challenged Claims.

Respectfully submitted,
Roku, Inc.

Date: April 30, 2024

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CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24, the undersigned certifies that the foregoing **PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE** contains 5,042 words excluding; a table of contents, a table of authorities, a certificate of service or word count, or appendix of exhibits or claim listing. Petitioner has relied on the word count feature of the word processing system used to create this paper in making this certification.

Date: April 30, 2024

/MacAulay Rush/
MacAulay Rush
Paralegal
WOLF, GREENFIELD & SACKS, P.C.

CERTIFICATE OF SERVICE UNDER 37 C.F.R. § 42.6 (e)(4)

I certify that on April 30, 2024, I will cause a copy of the foregoing document, including any exhibits filed therewith, to be served via electronic mail, as previously consented to by Patent Owner, upon the following:

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