

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FIRST ALERT, INC. and BRK BRANDS INC.,
Petitioners

v.

WALTER KIDDE PORTABLE EQUIPMENT, INC.,
Patent Owner

Case IPR2023-00896
Patent 7,123,158

PATENT OWNER'S PRELIMINARY RESPONSE

PATENT OWNER'S LISTING OF EXHIBITS

- Ex. 2001** File History of U.S. Pat. No. 7,525,445
- Ex. 2002** H. H. MABIE & C.F. REINHOLTZ, MECHANISMS AND DYNAMICS OF MACHINERY (4th ed. 1987)
- Ex. 2003** *Barrette Outdoor Living, Inc. v. Fortress Iron, LP et al.*, No. 3:21-cv-02008-E, Dkt. No. 24-7 at 48-49 (N.D. Tex. Mar. 10, 2022)
- Ex. 2004** *Walter Kidde Portable Equipment Inc. v. First Alert, Inc.*, No. 6:22-cv-566-ADA-DTG, Dkt. No. 38 (W.D. Tex. Dec. 27, 2022)

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I. INTRODUCTION

The Petition should not be instituted because the '158 Patent introduced a novel alarm that was designed to be used only once and thereafter prevented from being reattached. However, Petitioner's identified grounds include references, that were designed with the opposite goal, to facilitate repeated use and repeated attachment/reattachment. Petitioner's grounds therefore suffer from the same problems criticized in the patent and file history and should be rejected.

The '158 Patent's "invention" focuses on "battery powered electronic devices" where "batteries are sealed inside the device." *Id.*, 1:11-16. Such devices can include a first portion (mounting bracket) and a second portion (alarm portion) that includes the battery and is mounted/attached to the first portion. However, with sealed battery devices, user error can occur because a user may "mistakenly forget to activate the alarm" or reattach a deactivated alarm to the mounting bracket, leading to dangerous conditions where the device is inoperable and thus incapable of detecting life-threatening conditions. *Id.*, 2:25-29, 1:44-58.

To address these issues, the '158 Patent discloses sealed-battery devices that can include an automatic activation functionality, a permanent deactivation functionality/mechanism that enables permanent deactivation of the second portion, and a reattachment prevention functionality/mechanism where the second portion

cannot be reattached (i.e., is prevented from reattachment) to the first portion upon permanent deactivation. *See id.*, 7:26-40, 8:37-45. By enabling implementation of one or more of these features in a sealed-battery alarm, the invention reduces the risk that the “alarm will not function” when a life-threatening condition occurs. *Id.*, 1:44-50.

These are also among the features that were found to be allowed over the art of record during prosecution. Ex. 1004, 135, 158. Indeed, the Examiner found these to be the allowable features upon considering the references of record, which included many of the same references that are now relied upon in the Petition such as Malewski, DeLuca '487, and Watson.

This deficiency in the references of record also infects each of the Petition's grounds, which, again, rely in many instances on the above-identified references that were considered during prosecution. Specifically, in the presented grounds, the Petition advances five references—STP2003, Malewski, DeLuca '487, Byrne '354, and Byrne '311—none of which, alone or in the presented combinations, renders obvious one or more of the following features: automatic activation, permanent deactivation (and a mechanism permitting such deactivation), and reattachment prevention functionality and an associated mechanism whereby the first and second portions cannot be reattached upon permanent deactivation. *See §VI infra.*

Moreover, Petitioner advances motivations to combine (e.g., in Grounds 3-6) that are flawed because they seek to combine unrelated and incompatible features of different types of devices (i.e., sealed-battery devices and devices with replaceable batteries). Indeed, Petitioner ignores that the '158 Patent sought to provide a sealed battery device to avoid the “improper use” and “user mistakes” stemming from detectors with replaceable batteries (Ex. 1001, 1:59-62), which counsels against Petitioner’s proposed combination of such devices with those having sealed/non-replaceable batteries.

Additionally, Grounds 2-3 should be discretionarily denied under §325(d) because they seek a renewed challenge based on references—Malewski, Watson, and DeLuca '487—considered during prosecution. And, Petitioner has not shown that the Office erred in a manner material to patentability.

Finally, the Petition also violates Board’s rules by incorporating by reference voluminous portions of expert testimony to advance new unpatentability grounds, alternative theories, and substantiate conclusory statements regarding obviousness—without developing such arguments in the Petition. Such pervasive incorporation by reference circumvents established word counts, and unduly prejudices Patent Owner by forcing it to mine for and address incorporated arguments within the confines of the POPR’s word count. Such incorporation by

reference thus warrants denial of institution. In the alternative, the incorporated testimony should be given no weight.

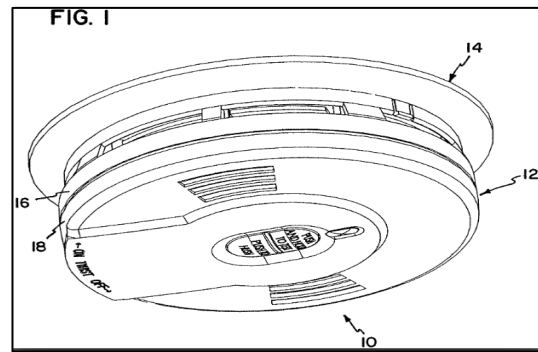
II. THE '158 PATENT

The '158 Patent's "invention" relates to "life safety alarms" with sealed batteries that are "less prone to user mistakes." Ex. 1001, 1:11-16, 1:66-2:2.

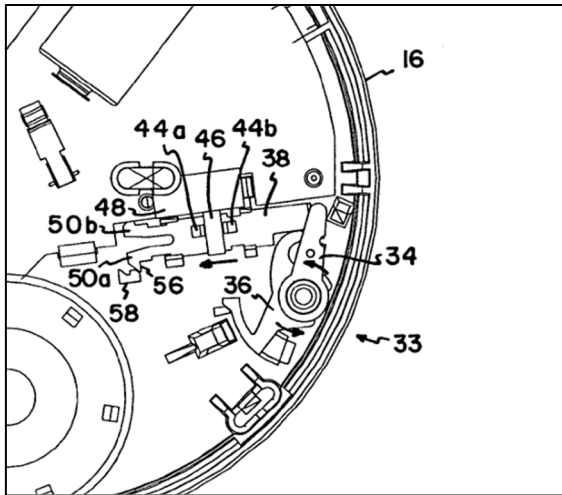
The patent discusses the risks associated with alarms having replaceable batteries, including difficult battery replacement, inadvertent installation of depleted batteries, improper battery installation, and lack of installation of batteries. *Id.*, 1:35-43.

To reduce these risks, the '158 Patent discloses alarm devices with batteries "sealed inside the alarm portion." *Id.*, 2:2-3, 3:59-65 (describing two-piece alarms including an alarm portion and mounting bracket). The '158 Patent's alarm can be implemented with an automatic activation feature, which avoids any "user interaction, other than attaching the alarm portion to the mounting bracket" to "activate the alarm," thereby ensuring "users cannot "mistakenly forget to activate the alarm." *Id.*, 2:25-28. The alarm can also "prevent reattachment of the alarm portion to the mounting bracket" upon permanent deactivation of the alarm portion, thereby avoiding inadvertent reattachment of a non-operational alarm. *Id.*, 2:31-36.

To these ends, the '158 Patent discloses a smoke alarm 10 that includes alarm portion 12 “detachably connected to” mounting bracket 14 (FIG. 1; right). *Id.*, 3:51-4:6, 4:13-14.



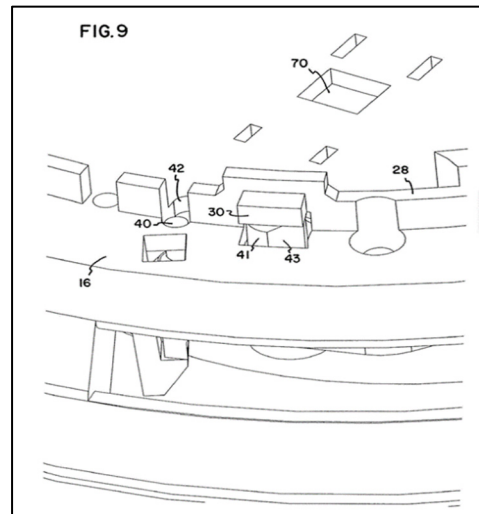
The alarm's activation and deactivation is controlled by an activate/deactivate system 33 (FIG. 5; left). System 33 includes a “rotate activate component 34” (part of “an activation mechanism”), a “rotate deactivate component 36” (part of the permanent deactivation mechanism), and “an activate/deactivate slider 38 (part of both mechanisms). *Id.*, 4:61-67.



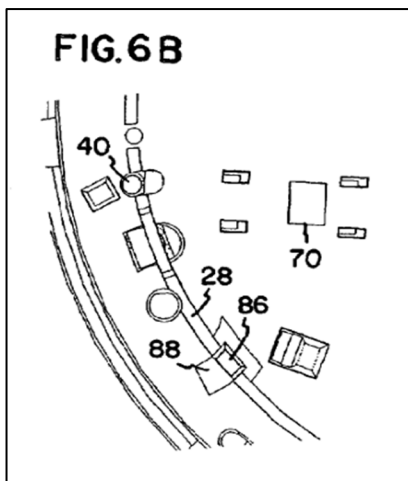
system 33 (FIG. 5; left). System 33 includes a “rotate activate component 34” (part of “an activation mechanism”), a “rotate deactivate component 36” (part of the permanent deactivation mechanism), and “an activate/deactivate slider 38 (part of both

Attaching alarm portion 12 to bracket 14 automatically activates the alarm 10.

As shown below (FIG. 9), when alarm portion 12 is attached to bracket 14, flat side 43 of boss 41 (part of activate component 34) “is engaged by a portion of one of [bracket 14’s] flanges ... which actuates the boss 41.” *Id.*, 5:26-33. This actuation “causes rotation of the activate component 34,” which causes slider 38’s movement to the ON position. *Id.* Slider 38’s movement in turn causes “[a switch actuating] tab 46” to move, thereby actuating switch 48 that activates the alarm. *Id.*, 5:34-44; FIG. 4 (above).



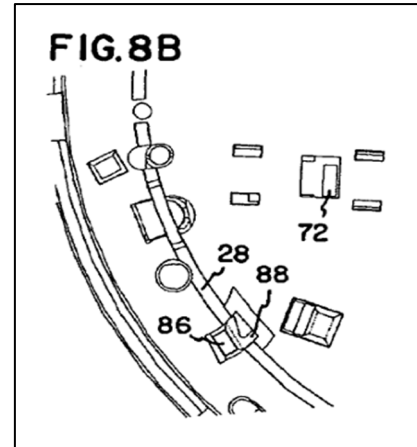
When slider 38 is in the ON position, “slot 72 is positioned in” hole 70, and



using a tool engaged in this slot, a user can “slide the slider 38 to the DEACTIVATED position.” *Id.*, FIG. 6B (left), 6:8-19 (slider 38 access is “only permissible” when alarm portion 12 is detached from bracket 14). This deactivates switch 48, which deactivates alarm 10, causing “a circuit in the alarm portion” to “automatically

drain” the batteries. *Id.*, 6:19-25.

When slider 38 is moved to the DEACTIVATED position, rotate deactivate component 36 “rotate[s] counterclockwise to a locked position” and tab 86 (in component 36) “moves outwardly beyond the circumference of the flange” and the “user is unable to actuate the rotate deactivate component 36 out of the locked position. *Id.*, 6:31-49, FIG. 8B (right).



In this manner, the '158 Patent discloses a sealed battery alarm that can include mechanisms to automatically activate and permanently deactivate the alarm portion, as well as a mechanism that prevents reattachment of the alarm portion to the mounting bracket upon permanent deactivation.

III. PROSECUTION HISTORY¹

During prosecution, the Examiner considered multiple references, including Malewski, Watson, and DeLuca '487 that are addressed in the Petition. Ex. 1004, 99, 135. In a first action, the Examiner allowed then-pending claims 18-21, rejected independent claim 1 and some of its dependent claims in view of Watson (Ex. 1005)

¹ The '158 Patent claims priority to a provisional application filed August 29, 2003 (Critical Date).

and Egendorf (U.S. Patent 4,553,252), and objected to claims 7, 12, 14-17 as being dependent on a “rejected base claim” that “would be allowable if rewritten in independent form.” *Id.*, 124-133.

Applicant incorporated into independent claim 1 the allowable subject matter of claim 7, which recited that “when deactivated, the second portion cannot be reactivated and the second portion cannot be reattached to the first portion.” *Id.*, 143-147. The claims were then allowed, with the examiner noting that this limitation was absent from the references of record (and similarly noting the reattachment prevention limitation in issued claim 12 was also absent). *Id.*, 154-159.

IV. PERSON OF ORDINARY SKILL IN THE ART (POSITA)

For purposes of this POPR, Patent Owner does not dispute Petitioner’s proffered identification of a POSITA’s skill level. *See* Petition, 5.

V. CLAIM CONSTRUCTION

All claim terms should be construed according to the *Phillips* standard. In the parallel litigation, the Court held that multiple claim terms should be accorded their plain and ordinary meaning. Patent Owner has applied the same interpretation for those terms here. Ex. 1019; Ex. 2004.

VI. THE PETITION'S GROUNDS DO NOT RENDER OBVIOUS THE CHALLENGED CLAIMS

A. GROUND 1: STP2003 Does Not Render Obvious the Challenged Claims

1. Overview of STP2003

Per Petitioner, STP2003 is a report of a March 2003 meeting of the Standards Technical Panel of UL for Smoke Detectors and Alarms. Petition, 9. The scant disclosure in this document is hardly enabling of any system. Petitioner relies on STP2003 for statements that alarms should “be provided with both a means to activate the power and a means to deactivate the power” when the batteries “reach the end” of their life, and that the “deactivation means shall require the use of a tool, or equivalent, and shall render the unit incapable of being reinstalled.” Ex. 1008, 5-6. However, STP2003 does not explain what the “means” to activate and deactivate the power are, or how they would be implemented in any device.

2. STP2003 Does Not Render Obvious Claims 1-7

a) STP2003 Does Not Render Obvious “Cooperating Features on the First Portion and the Second Portion” ([1c])

STP2003 does not disclose or suggest a device including the claimed “cooperating features.” Petitioner nevertheless asserts that a “POSITA would understand” that STP2003’s proposal of a “means to activate the power” includes the claimed “cooperating features.” Petition, 13. To support this assertion that rings

in inherency, Petitioner cites to (1) the '158 Patent's background (Ex. 1001, 1:51-58), (2) disclosures in a different reference, Watson (Ex. 1005, 2:51-53, 4:66-5:10), (3) Dr. Pratt's testimony reiterating Watson's cited disclosure (Ex. 1002, ¶¶137-139), and (4) testimony of Patent Owner's litigation expert, Dr. Reinholtz (Ex. 1013, 65:24-67:6)—none of which support the proposition that the claimed “cooperating features” are included in STP2003's “means to activate the power.”

First, the '158 Patent's background does not disclose or suggest the claimed “cooperating features,” and instead generally describes alarm activation and deactivation. Ex. 1001, 1:51-58.

Second, the citation to Watson, and particularly its L-shaped projections, does not demonstrate why these components include the claimed cooperating features or would be obvious in view of STP2003. Indeed, not only does Petitioner improperly advance an argument based on a non-ground reference (Watson), Petitioner also fails to explain why a POSITA would understand STP2003's “means to activate the power” as including Watson's alleged cooperating features.

In other words, even if Watson discloses “cooperating features,” Petitioner needed to explain why and how such features would be implemented in a device contemplated by STP2003 (specifically in the “means to activate the power”). *See Samsung Electronics Co. Ltd. Et al. v. Imperium (IP) Holdings*, IPR2015-01233,

Paper 14 at 17-18 (Dec. 1, 2015) (“The obviousness analysis requires more than” asserting that certain teachings were “well known in the art. For any limitation Petitioner asserts is well-known,” there must be evidence of that “knowledge” and “rationale for modifying” the reference’s teachings).

Third, Petitioner’s reliance on Dr. Reinholtz’s litigation testimony is similarly flawed. Per Petitioner, Dr. Reinholtz provides an example of cooperating features when discussing a “twisting example in his deposition.” Petition, 13. Dr. Reinholtz testified about multiple ways to create “a self-activation mechanism” by “mounting the alarm to the bracket” (Ex. 1013, 65:24-66:4), including a “twist-on” activation in the “Kidde 0910” alarm. Ex. 1013, 65:10-66:24, 62:11-64:12. Petitioner has failed to demonstrate that the Kidde 0910 alarm is prior art (it is not; *see id.*) and thus, does not speak to features known before the Critical Date. Moreover, even if the twist-on activation of a non-prior art device could be considered for obviousness purposes, Petitioner has failed to explain why and how any such features would be implemented in a device contemplated by STP2003.

b) STP2003 Does Not Render Obvious “Wherein the Cooperating Features Comprise An Activate/Deactivate System... Configured to Automatically Activate the Second Portion Upon Initial Attachment of the Second Portion to the First Portion” ([1c]-[1d])

Per Petitioner, STP2003’s disclosure of a “means to activate the power” constitutes the claimed “activate/deactivate system” that is allegedly configured to automatically activate the second portion upon initial attachment. Petition, 13. This argument is flawed.

First, because STP2003 does not render obvious the claimed cooperating features (*see* §VI.A.2.a *supra*), STP2003 also does not render obvious the claimed activate/deactivate system included in the cooperating features.

Second, STP2003 does not disclose or suggest the structure corresponding to its proposed “means to activate the power.” Ex. 1002, ¶165 (acknowledging that the term “means” is a nonce/non-structural term). If Petitioner is contending that Watson’s L-shaped features constitute the claimed activate/deactivate system (*id.*, ¶¶142-143), Petitioner has failed to explain how or why such features would be implemented in any device contemplated by STP2003. *See* §VI.A.2.a *supra*.

Third, not only does STP2003 fail to disclose or suggest a cooperating feature comprising an active/deactivate system, it also does not disclose or suggest that this alleged system “automatically activate[s] the second portion upon initial attachment

of the second portion to the first portion.” STP2003 proposes that the “smoke alarm ... shall be provided with a means of activating the power *prior to installation*” (Ex. 1008, 6)—as opposed to the instant limitation’s “automatic activation *upon initial attachment*.” Additionally, Petitioner does not cite any STP2003 disclosure suggesting that the alleged activation is “automatic.”

3. *STP2003 Does Not Render Obvious Claims 12-15*

a) *STP2003 Does Not Render Obvious “An Activation Mechanism to Activate the Second Portion” ([12c])*

Petitioner contends that STP2003’s “means to activate the power” of a smoke alarm constitutes the claimed “activation mechanism.” Petition, 19. As explained below, this analysis is flawed.

An activation *mechanism* requires a mechanical device for “activat[ing] the second portion,” but STP2003 does not disclose/suggest any such activation mechanism. For example, the ’158 specification identifies a mechanical device as an example of the activation mechanism. *See* Ex. 1001, 5:36-42 (using “activation” mechanisms synonymously with actuators, such as switches and tabs that facilitate device activation). Moreover, a textbook in the mechanical arts defines mechanisms as mechanical devices. *See* Ex. 2002, 5. Even Petitioner’s expert has testified that a “mechanism is a mechanical device where you have more than one component working in concert with one another.” *See* Ex. 2003, 48:11-49:12.

STP2003 does not disclose or suggest any “mechanism” or mechanical device for activating the alleged second portion. Instead, STP2003 proposes a “means to activate the power,” which does not address whether any alleged device would include an activation *mechanism* that performs the claimed activation.

Petitioner further cites to expert testimony of Dr. Pratt, stating that (1) a “POSA would understand ‘means to activate power’ as recited in STP2003 ‘would include an activation mechanism,” and (2) “the MPEP recognizes that ‘mechanism’ is often a nonce word substitute for the word ‘means’” and thus, according to him, STP2003 renders obvious the claimed activation mechanism. Petition, 19 (citing Ex. 1002, ¶165). This argument fails for multiple reasons.

First, Dr. Pratt fails to provide any evidence or logical support to substantiate his conclusory statement that STP2003’s “means to activate power” would be “underst[ood]” by a POSITA to include “an activation mechanism. Indeed, this argument, which rings in inherency, lacks any explanation as to why STP2003’s “means to activate power” must be the claimed “activation mechanism.” *In re Rijckaert*, 9 F.3d 1531, 1534 (Fed. Cir. 1993).

Second, Dr. Pratt appears to argue that “mechanism” is a nonce word that lacks any meaning and could be disclosed by anything. Ex. 1002, ¶165. If Dr. Pratt is correct, such an interpretation would doom this ground in its entirety because this

term would be subject to means-plus-function treatment under 35 U.S.C. §112(6), but Petitioner did not provide any such analysis. *See id.*; 37 C.F.R. § 42.104(b)(3); *Callminer, Inc. v. Mattersight Corp.*, IPR2020-00272, Paper 8 at 13-14 (PTAB June 18, 2020) (denying institution when Petition lacks “any explanation or sufficient identification from Petitioner of the structure of the means-plus-function terms”). And if the Board rejects that position, as the District Court did (Ex. 1019. 2-3; Ex. 2004, 8-14), then Dr. Pratt’s argument is inadequate on its face because it fails to identify any mechanical structure in STP2003 that could be considered the claimed mechanism. Indeed, Petitioner’s expert equating “means” to a nonce term underscores that the “means for activation of power” in STP2003 lacks structure. As such, STP2003 lacks structure or description of any activation “mechanism” and therefore fails to render obvious the claimed “activation mechanism.”

b) STP2003 Does Not Render Obvious “A Permanent Deactivation Mechanism to Permit Permanent Deactivation of the Second Portion After the Second Portion Has Been Activated”([12d])

Per Petition, STP2003’s proposal that “deactivation means” “shall also serve to completely discharge the battery[ies]” and “shall be designed to operate one time only” constitutes the claimed permanent deactivation mechanism. Petition, 19. This is incorrect.

First, Petitioner fails to identify any “mechanism” in STP2003 that permits the alleged permanent deactivation. As described in §VI.A.3.a, the claimed “mechanism” requires a mechanical device, and, for this limitation, that mechanical device permits “permanent deactivation of the second portion.” STP2003 recites a “deactivation means” but, as Petitioner’s expert acknowledges, the term “means” in this phrase is a nonce term that does not impart any structure, much less suggest that “deactivation means” constitutes a mechanical device. STP2003 thus does not describe or suggest any mechanism/mechanical device that permits the alleged “permanent deactivation.”

Second, STP2003’s teaching that “deactivation means shall require the use of a tool or equivalent” does not disclose or suggest the claimed “permanent deactivation mechanism.” Petition 19-20. This disclosure does not teach or suggest any mechanism. And, if Petitioner is asserting that “a tool or equivalent” is the permanent deactivation mechanism, that assertion fails because the claims require that the device include the “permanent deactivation mechanism” such that the separate tool proposed in STP2003 is not the claimed “permanent deactivation mechanism.”

c) STP2003 Does Not Render Obvious “A Reattachment Prevention Mechanism to Prevent Reattachment of the First and Second Portions Once the Second Portion is Permanently Deactivated” ([12e])

Petitioner alleges that STP2003’s statement that “[t]he deactivation means ... shall render the unit incapable of being reinstalled” suffices to render obvious the claimed reattachment prevention mechanism. Petition, 20. This argument is flawed.

First, Petitioner appears to map to STP2003’s “deactivation means” for both the claimed “permanent deactivation mechanism” and “reattachment prevention mechanism.” *Id.* Given that STP2003 discloses that the “deactivation means ... shall render the unit incapable of being reinstalled” (Ex. 1008, 6), any alleged reattachment prevention would also be performed by the proposed “deactivation means.” However, because the claim recites separate mechanisms for permanent deactivation and reattachment prevention, STP2003’s “deactivation means” (even if considered a mechanism) cannot be both the “permanent deactivation mechanism” and the “reattachment prevention mechanism.” *See Becton, Dickinson & Co. v. Tyco Healthcare Group, LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) (citing *Gaus v. Conair Corp.*, 363 F.3d 1284, 1288 (Fed. Cir. 2004)) (“clear implication” of separately recited claims elements is that they are “distinct component[s]” of the patent invention); *Engel Indus., Inc. v. Lockformer Co.*, 96 F.3d 1398, 1404-05 (Fed. Cir. 1996).

Second, even if Petitioner asserts that another mechanism (other than the alleged mechanism of the “deactivation means”) constitutes the “reattachment prevention mechanism,” STP2003 does not disclose or suggest such a mechanism, and instead only states that the deactivation means “shall render the unit incapable of being reinstalled.” Ex. 1008, 6.

Additionally, Petitioner’s inherency argument that “[a] POSITA would understand that deactivation means which render a well-known bracket-mounted detector incapable of being reinstalled, would include some mechanism for preventing the base from engaging with the bracket” is also flawed. Petition, 20. This assertion does not necessarily follow from STP2003, because STP2003 proposes that the deactivation means itself renders the unit incapable of being installed. Thus, even assuming *arguendo* that STP2003 suggests reattachment prevention, STP2003 does not disclose or suggest any additional mechanism to prevent reattachment. *See In re Rijckaert*, 9 F.3d at 1534.

Third, Petitioner’s reliance on expert testimony does not remedy this deficiency. Specifically, the cited expert testimony discusses DeLuca ’487’s lockout actuator (Ex. 1006) and concludes that a “POSA would understand that deactivation means which render the conventional detector, comprising first and second portions, incapable of being reinstalled *could* include some mechanism for preventing the

second portion, i.e. the base, from engaging with the first portion, i.e. the bracket.” Petition, 20 (citing Ex. 1002, ¶171) (emphasis added). That is, Petitioner’s expert addresses what *could* be done, rather than what a POSITA *would* have found obvious to implement in view of STP2003. Moreover, DeLuca ’487 fails to render obvious the claimed reattachment prevention mechanism as described below in §VI.C.4.b.

Even assuming *arguendo* DeLuca ’487 teaches the claimed reattachment prevention mechanism (it does not), Petitioner fails to explain how any alleged reattachment prevention mechanism in DeLuca ’487 would be implemented in view of STP2003 or why it would be obvious to do so. *See* Ex. 1002, ¶¶170-172. Indeed, STP2003’s cited proposals are for sealed-battery devices, whereas DeLuca ’487 is directed to replaceable battery devices. Ex. 1008, 6; Ex. 1006, 2:9-18. Petitioner has not explained why a feature enabling battery replacement from DeLuca ’487’s removable battery device would be implemented within a sealed non-replaceable battery device (where the battery is not replaced and the device is not intended for re-use), as allegedly proposed in STP2003.

Finally, the Petition cites to deposition testimony of Patent Owner’s expert, Dr. Reinholtz, for its analysis. Petition, 20 (contending that Dr. Reinholtz testified that a POSITA “would have understood ... reattachment prevention mechanisms as

of” the ’158 Patent’s filing). Petitioner, however, omitted that this testimony arose in the context of claim construction issues, i.e., whether “reattachment prevention mechanism” is a structural term and whether a POSITA would have understood what types of structures that would be encompassed by this term. See Ex. 1013, 95:3-12, 83:3-24, 109:23-110:4. Nothing about this testimony explains why it would be obvious to implement a reattachment prevention mechanism in a device allegedly contemplated by STP2003, or how such mechanisms would even be implemented.

For these reasons, STP2003 does not render obvious the claimed “reattachment prevention mechanism.”

B. GROUND 2: Malewski Does Not Render Obvious the Challenged Claims

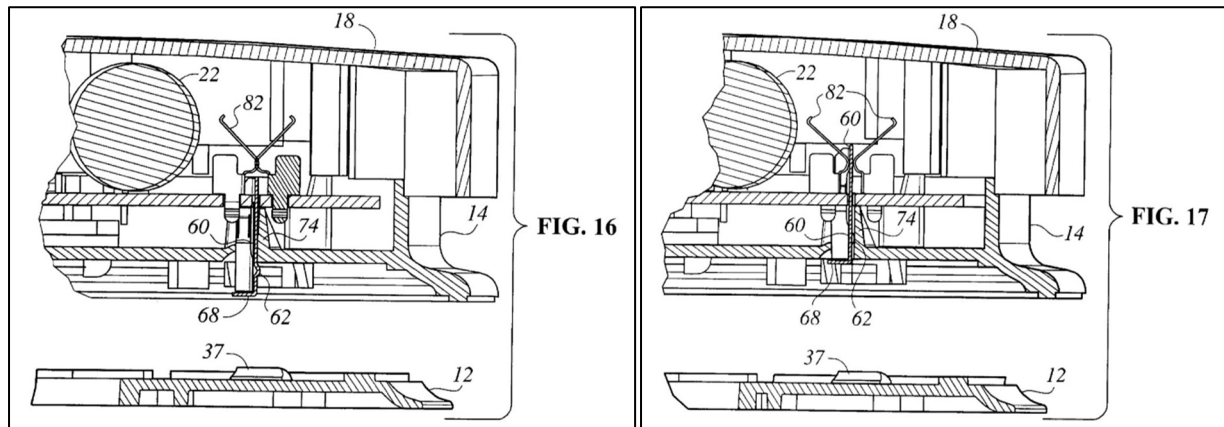
1. Overview of Malewski

Malewski recognizes that certain devices become powered simply by installing batteries therein, resulting in “active” or “hot” devices that violate laws precluding transportation of active/hot devices. Ex. 1007, 1:24-29. To address this issue, Malewski provides a device with “a repetitively usable on/off switch” that can be activated when installed, but deactivated for safe transport such that it can re-activated after transport. *Id.*, 1:6-10. Thus, the purpose of Malewski is to allow for the product to be removed/deactivated and transported in a way that it can be later reattached/reactivated—which is the opposite of the ’158 Patent’s permanent

deactivation and reattachment prevention requirements.

Malewski surveyed certain references, including Watson, and noted these prior devices could not be repetitively activated/deactivated. *Id.*, 1:35-58. Noting that Watson's detector device uses a "single-use" switch that deactivates the battery, Malewski explained that Watson does not disclose or foreclose that "the switch is capable of retrograde motion that would allow the unit's deactivation for removal, storage, and later movement to alternate locations" where the device can be reactivated. *Id.*

In contrast, Malewski provides multiple embodiments of its "repetitively useable on/off switch" that facilitates repeated activation/deactivation upon install/uninstallation of the device (which is not feasible in Watson). *See* Ex. 1007, 1:8-10. Malewski enables repeated activation and deactivation of the device via an "activation key." *Id.*, 7:66-8:9. As depicted on the left below, when the key is in the off position, "bottom ledge 68 protrudes from base 14, where it interferes with making a bayonet-type connection between base 14 and mounting bracket 12." *Id.* And, when the key is pushed in to the on position, the alarm base can be mounted to the mounting bracket, as shown below on the right. *Id.* The key can be retracted and pushed in multiple times to deactivate and reactivate the device. *Id.*, 7:45-48 (claim 5).



2. Malewski Does Not Render Obvious Claims 1-7

a) Malewski Does Not Disclose or Render Obvious [1c]-[1d]

Malewski discloses “mating” of the “major portion” and the “surface mountable bracket” that “effects simultaneous switch activation,” which Petitioner alleges is “the claimed automatic activation.” Petition, 24-25 (citing Ex. 1007, 3:24-42).

At the outset, the analysis for this and other claim 1 limitations improperly comingles Malewski’s different embodiments without explaining how these embodiments would disclose (or be combined to disclose) a single device (1) that is configured to “automatically activate the second portion” (limitations [1c]/[1d]) and (2) where the “second portion cannot be reattached to the first portion” upon permanent deactivation (limitation [1f]). For limitation [1f], Petitioner focuses solely on Malewski’s activation key embodiment (embodiment 4; Ex. 6:61-9:4;

Petition, 27-29), which Malewski confirms as “differ[ing] from” embodiments 1-3 that relate to the alleged mating-based activation (Ex. 1007, 4:62-6:60) identified for the “automatic activation” feature.

Petitioner fails to explain why Malewski’s mating-based activation embodiments would be combined with the activation key-based embodiment and how such a combination would satisfy both limitations of the same device. *See Abiomed, Inc. v. Maquet Cardiovascular, LLC*, IPR2017-01204, Paper 9 at 8-12 (PTAB Oct. 23, 2017) (denying institution where no explanation provided for how different embodiments of a reference were interchangeable or why a POSITA would have found it obvious to combine their respective teachings). Indeed, these embodiments describe different ways and structures to achieve activation, such that a single device would not implement both structures/approaches.

Moreover, per Malewski’s activation-key embodiment, the key has to be manually pushed into the device fully for activation, thereby “provid[ing] a safeguard against installing the device” without activation. *Id.*, 7:66-8:9, 3:58-61. The activation key must be pushed in for the device to be “attach[ed] to mounting bracket 12.” *Id.*, 8:7-10. These disclosures confirm that activation in this embodiment is not “automatic” and the device (second portion) is activated ***before***

attachment to the mounting bracket (first portion), rather than “*upon* initial attachment,” per the claims.

Petitioner has therefore failed to demonstrate that this limitation is obvious based on Malewski’s different embodiments, and when considering the correct embodiment forming the basis for Petitioner’s analysis, Malewski does not disclose or suggest this limitation.

b) Malewski Does Not Render Obvious “Wherein, When Deactivated, the Second Portion Cannot Be Reactivated” ([1f])

Malewski does not disclose this limitation in the description of its invention, and Petitioner does not contend otherwise. Petition, 27-28. Malewski instead describes *repeated* activation/deactivation and attachment/detachment of its device. Ex. 1007, 1:8-10, 7:66-8:9.

The Petition does not address this deficiency in Malewski and instead, seizes upon Watson’s teachings, noting that “Malewski describes permanent deactivation” “in its description of Watson.” Petition, 27 (citing Ex. 1005, 2:35-43, 4:9-11, 4:44-56; Ex. 1007, 1:35-58). However, as described below, Petitioner’s independent reliance on Watson as an alleged extension of Malewski results in an inoperable combination and fails to render this limitation obvious.

First, Petitioner omits that Watson is “incorporated by reference” in Malewski only for its “showing of “current state of the art.” Ex. 1007, 2:35-38. Such

incorporation does not demonstrate that Malewski's device would necessarily implement the features of Watson's device. *See Modine Mfg. Co. v. United States ITC*, 75 F.3d 1545, 1553 (Fed. Cir. 1996) ("incorporation by reference does not convert the invention of the incorporated patent into the invention of the host patent").

Petitioner has failed to demonstrate how Watson's alleged permanent deactivation functionality would be implemented in Malewski's device and why a POSITA would have been motivated to do so, particularly when this modification is not readily described or suggested in Malewski's embodiments. Petitioner does not explain why a POSITA would combine Malewski and Watson other than asserting that Malewski incorporates Watson. Petition, 27-28. Indeed, it is improper to cherry-pick specific components in two different references to allegedly arrive at the claimed device—without any rational underpinning or explanation for this modification. *See In re Enhanced Sec. Research, LLC*, 739 F.3d 1347, 1355 (Fed. Cir. 2014) (citing *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1587 (Fed. Cir. 1987)) (emphasizing that an obviousness finding cannot be "stitch[ed] together" from "discrete portions of prior art references without considering the references as a whole").

Second, a correct reading of Malewski and Watson reveals that these references are incompatible and would not be combined. Specifically, Watson discloses a long-life battery-powered detector with a switch that is “rotated ... to a battery ‘drain’ position in which a second switch may be activated to drain the battery” and thereafter the “unit is discarded.” Ex. 1005, 1:5-10, 4:45-56; Ex. 1007, 1:50-54. As Petitioner admits, Watson “foreclose[s]” any “retrograde motion” of this switch that would allow for multiple activations/deactivations. Ex. 1007, 1:54-58; Petition, 27. In contrast, Malewski overcomes deficiencies in the art—including Watson—by providing a detector with “an on/off switching mechanism that has a physical multiple use (multiuse) capability” that is “used, *repeatedly*, to activate/deactivate an electrical circuit, instead of a “single-use” switch that drains the battery and does not allow reactivation.” Ex. 1007, 1:50-58, 3:13-17, Title. Unsurprisingly, given Malewski’s goal of repeated activation/deactivation, Malewski’s description does not disclose or suggest a Watson-like single use switch that would result in permanent deactivation as Petitioner alleges. *See generally* Ex. 1007, 3:13-9:4.

Petitioner therefore had the burden to demonstrate that—notwithstanding the incompatibility of Malewski’s and Watson’s devices—a POSITA would have found it obvious to modify Malewski’s device to nevertheless include this incompatible

feature disclosed in Watson. Petitioner has not made such a showing and thus, fails to demonstrate that Malewski renders obvious the instant limitation. *See* Petition, 27-28.

c) Malewski Does Not Render Obvious “Wherein, When Deactivated, ... the Second Portion Cannot Be Reattached to the First Portion” ([1f])

Petitioner contends that Malewski discloses this feature based on its activation key and associated components, which when in the off position, results in a bottom ledge 68 protruding from base 14, that interferes “with making the bayonet-type connection between base 14 and mounting bracket 12.” Petition, 27-28.

As a threshold matter, and as explained in § VI.B.2.a, Petitioner abandons the earlier Malewski embodiments cited for limitations [1c] and [1d] and relies solely upon Malewski’s different activation key-based embodiment for this limitation. Again, Petitioner’s cherry-picking of features from different embodiments is flawed and fails to make a *prima facie* showing of obviousness by failing to explain why or how the teachings of these embodiments would be combined. Nevertheless, if the presented analysis for this limitation is considered, it fails for two reasons.

(1) Claim Requires that the First and Second Portions Cannot Be Reattached When the Second Portion is Permanently Deactivated, Whereas the Alleged First and Portions in Malewski Can Be Reattached Upon Deactivation

As explained in §VI.B.2.b *supra*, Malewski does not render obvious that the second portion cannot be reactivated once deactivated, and consequently, Malewski does not render obvious a device that “cannot be reattached to the first portion” in a state where it “cannot be reactivated”.

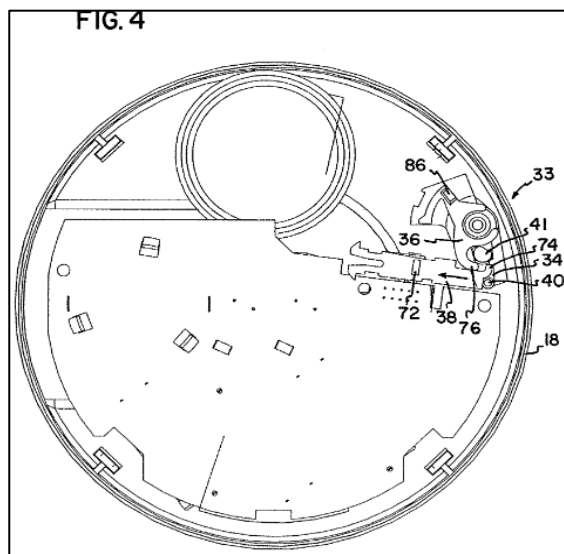
Even if Watson’s alleged teachings of permanent deactivation could be implemented in Malewski’s device², no teaching in Malewski discloses or suggests that, when this hypothetical device is deactivated, the “second portion” “cannot be reattached to the first portion.”

Specifically, the limitation “second portion cannot be attached to the first portion” does not encompass any device—such as Malewski’s device—with a second portion that can be attached to the first portion when it has been permanently deactivated. To the contrary, the claim unequivocally states that, when so deactivated, the “second portion ***cannot be reattached*** to the first portion.” Devices where the second portion can be attached to the first portion upon such deactivation

² This assertion stands refuted —see §VI.B.2.b *supra*.

are thus outside the scope of this claim. And consistent with the claim, the specification describes structures/mechanisms preventing reattachment of the alarm portion (second portion) to the mounting bracket (first portion) once the alarm portion has been permanently deactivated. Per the specification, the “invention” relates to a “battery-powered” electronic device that is “less prone to user mistakes” and “where the batteries are sealed inside the device to prevent access to the batteries.” Ex. 1001, 1:11-16, 1:65-2:8, Title.

Because the batteries are not replaceable in such devices, the user deactivates



the alarm at the end of its life, and “when deactivated,” the “invention” “mechanically prevents” the deactivated alarm portion “from being mounted” to the mounting bracket. *Id.*, 2:22-24, 2:31-36. As depicted on the left, the alarm portion includes a slider 38, which when moved from ON to

DEACTIVATED, results in “rotate deactivate component 36” being “rotate[d] counterclockwise to a locked position.” *Id.*, 6:31-35. In the locked position, a tab 86 included in the rotate deactivate component 36 “moves outwardly beyond the

circumference of the flange,” thereby preventing the alarm portion 12 from being reattached to the bracket 14. *Id.*, 6:36-58.

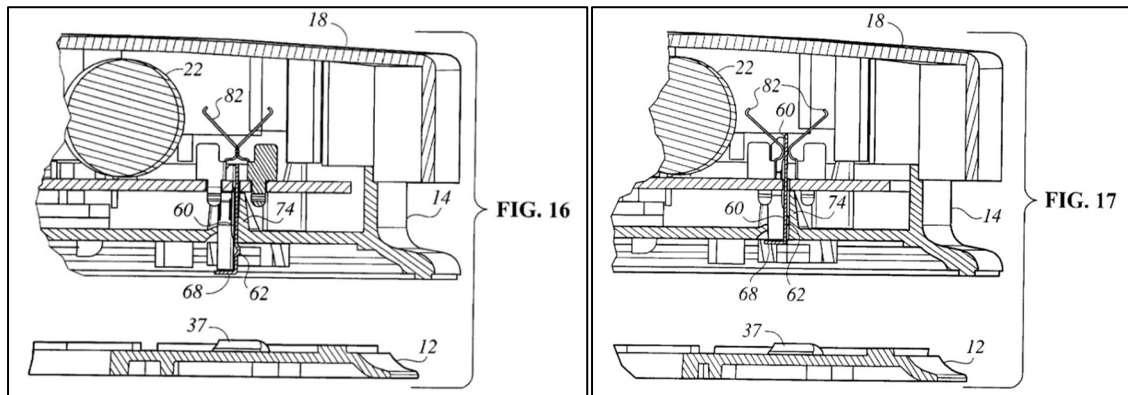
Per the '158 Patent, preventing reattachment of a permanently deactivated alarm portion avoids “highly dangerous” situations stemming from inoperable units being reattached and thus, not generating an alarm when a life-threatening condition occurs. Ex. 1001, 1:44-50; *see also* Ex. 1002, ¶80 (Petitioner’s expert acknowledging “a smoke detector with a sealed battery that has been permanently deactivated and then reinstalled ... would not satisfy” NFPA 72 8-2.1 criteria because “signals alerting of fire ... cannot be obtained”). Thus, to avoid these dangerous conditions, the above-described mechanism ensures that the alarm portion “cannot be reattached to the bracket” and that the “user is unable to actuate” this mechanism out of the locked portion to facilitate reattachment. Ex. 1001, 6:36-58.

Moreover, the feature that “the second portion ***cannot be reattached*** to the first portion” was found to be absent from the references of record during prosecution—which includes Malewski, Watson, DeLuca '487, and Belano, on which the Petition or the accompanying declaration rely. Ex. 1004, 158. Malewski describes a device with a base and mounting bracket that can be reattached to each other after device deactivation, and DeLuca '487 and Belano disclose replaceable-battery devices where a “lockout actuator” or a “finger” allows the base to be

mounted to a mounting bracket upon insertion of a correct number of batteries. *See* Ex. 1007, 7:66-8:9; Ex. 1006, 2:9-18; Ex. 1036, 2:32-54. Each of these references disclose devices with a first and second portion that can be reattached—unlike the claim requirement, where the second portion cannot be reattached to the first portion. Unsurprisingly, when confronted with this and other references of record, the Examiner found the claims allowable because of the references’ failure to disclose or suggest that the second portion, when deactivated, “cannot be reattached to the first portion.” Ex. 1002, 135, 158.

Given this intrinsic record, the present limitation does not encompass a device with a second portion that can be reattached to the first portion once the second portion has been permanently deactivated (i.e., cannot be reactivated).

Thus, even assuming *arguendo* that Malewski’s device would have implemented Watson’s permanent deactivation feature, the proposed device ***can still be attached*** when using Malewski’s “activation key”—even after any alleged permanent deactivation. Malewski’s activation key is moved from an off position (FIG. 16 below; left) to an on position (FIG. 17 below; right) to activate the device, and from an on position to an off position to deactivate the device. Ex.1007, 7:66-8:9.



When the activation key begins in the off position, “bottom ledge 68 [of the key] protrudes from base 14, where it interferes with making the bayonet-type connection between base 14 and mounting bracket 12.” *Id.* When the activation key is pushed in all the way, the device can be attached to mounting bracket 12. *Id.*

In this manner, after the base is detached from the mounting bracket and even if the second portion has been permanently deactivated (as Petitioner contends in view of Watson), using Malewski’s activation key, the alarm base can be reattached to the mounting bracket. *Id.*, 10:17-28, 7:41-8:9. Because the alleged first and second portions can be reattached to the first portion after the second portion has allegedly been permanently deactivated, Malewski does not render obvious the claimed feature “*when deactivated*, the second portion cannot be reactivated and *the second portion cannot be reattached to the first portion.*”

*(2) Petitioner Improperly Incorporates by Reference
Large Portions of Expert Testimony on Arguments
Absent from the Petition*

After presenting its arguments for this limitation³, the Petition concludes by noting that “Malewski renders this claim element obvious” and cites 110 paragraphs of expert testimony. Petition, 29 (citing Ex. 1002, ¶¶175-179, 206-229, 35-40, 63-85, 437-472). These paragraphs include the expert’s recitation of the ’158 Patent’s overview (¶¶35-40), the alleged state of the art (¶¶63-85), general arguments regarding obviousness over Malewski (¶¶175-179), proposals regarding independent modifications to each of the Malewski and Watson devices (¶¶437-472), and multiple citations (in ¶¶206-229) to the 1999 NFPA 72, the 1997 UL 217, and the 2000 International Fire Code, an embedded citation to Section VII.D (¶¶113-128, discussing the alleged state of the art of reattachment prevention mechanisms), and another embedded citation to Section IX.A (including ¶¶437-472).

The Petition does not substantively discuss any of these contentions. What’s worse, Watson is not even part of the presented ground, yet Petitioner’s expert advances detailed arguments regarding combining Watson and Malewski, and

³ Petitioner reiterates such incorporation by reference in its analysis for [12e] discussed in § VI.B.3 below. Petition 35-36.

presents 36 paragraphs describing how each of Malewski and Watson, independently, would be modified to allegedly render the present limitation obvious.

Thus, via its sweeping incorporation by reference, Petitioner now injects multiple new theories and unpatentability grounds absent from its Petition. Such wholesale incorporation by reference violates the PTAB's rules and precedent and is therefore entitled to no weight. *See §VII infra.*

Even if considered, Dr. Pratt's proposed modifications include his own manufactured designs of how he would modify the Malewski and Watson devices to meet the claims (Ex. 1002, ¶¶437-472). This testimony lacks any objective support in these references, nor has Dr. Pratt provided any independent or contemporaneous evidence demonstrating why a POSITA would have modified the devices in the manner that he proposes. On this record, testimony of Petitioner's retained expert that manufactures modifications to devices to read on the claims lacks any objective basis and amounts to impermissible hindsight bias that should be rejected.

3. *Malewski Does Not Render Obvious Claims 12-15*

a) *Malewski Does Not Render Obvious [12d]*

Similar to its claim 1 analysis, Petitioner seizes on Watson's teachings to argue that Watson's single-use switch mechanism is the claimed mechanism that

allegedly permits permanent deactivation. Petition, 35. As explained in §VI.B.2.b, Malewski does not render obvious permanent deactivation of the second portion, and Petitioner has failed to demonstrate how/why any functionality or alleged mechanism in Watson would be implemented in Malewski, particularly given Malewski sought to avoid the single use aspect of Watson's disclosed switch. Therefore, Petitioner has failed to demonstrate that Malewski renders this limitation obvious for the reasons described in §VI.B.2.b.

b) Malewski Does Not Render Obvious [12e]

Similar to its claim 1 analysis, Petitioner contends that Malewski's activation key and associated components (alleged reattachment prevention mechanism) meets this limitation given Malewski's teaching that when the activation key is in the off position, bottom ledge 68 protrudes from base 14, thereby interfering "with making the bayonet-type connection between base 14 and mounting bracket 12." *Id.*, 35-36. As explained in §VI.B.2.c, in the context of the '158 Patent, reattachment prevention (much like claim 1's requirement of the "second portion cannot be reattached to the first portion") does not encompass any device or an associated component that allows reattachment of the first and second portions once the second portion is permanently deactivated. Malewski's activation key and its associated structures (alleged reattachment prevention mechanism) would allow reattachment of the first

and second portions even after any alleged permanent deactivation. *See* §VI.B.2.c *supra*.

Moreover, as explained with reference to §VI.B.2.b, Malewski does not render obvious permanent deactivation of the second portion and therefore, any alleged reattachment prevention mechanism in Malewski also does not prevent reattachment of the first and second portions “*once the second portion is permanently deactivated,*” per this limitation.

C. GROUND 3: Malewski in view of DeLuca '487 Does Not Render Obvious the Challenged Claims

1. Overview of DeLuca '487

DeLuca '487 relates to a smoke detector with replaceable batteries that includes a base and mounting bracket. Ex. 1006, 1:64-2:44. The base includes a battery compartment with a “single battery lockout mechanism” that “actuates from an obstructing to a non-obstructing position” when batteries are inserted into the compartment. *Id.*, 2:9-31. While the lockout actuator is in the obstructing position, a “lockout tab projects onto the mating region of the” base. *Id.*, 2:32-36. Because a spring biases the lockout actuator to the obstructing position, the insertion of the correct number of batteries in the battery compartment causes “the action of the spring” that allows “the lockout actuator” to move to “the non-obstructing position,” which allows mounting the base to the mounting bracket. *Id.*, 2:16-31.

2. *Petitioner Has Failed to Demonstrate How or Why a POSITA Would Have Combined Malewski and DeLuca '487*

The Petition advances multiple motivations to combine these references. *See* Petition, 37-40. However, as explained below, each presented motivation is flawed.

First, Petitioner argues that a POSITA would have been motivated to combine Malewski and DeLuca '487 because both disclose smoke detectors. *Id.*, 37. Simply because two references are in the same general field does not demonstrate a motivation to combine these references. *See Johns Manville Corp. v. Knauf Insulation, Inc.*, IPR2018-00827, Paper 9 at 10 (PTAB Oct. 16, 2018) (a reference being in the same field does not demonstrate that a POSITA would have “combine[d] its teachings with other prior art”) (citing *Securus Techs., Inc. v. Global Tel*Link Corp.*, 701 F. Appx. 971, 977 (Fed. Cir. 2017)).

Indeed, Petitioner ignores that these references relate to different types of devices that solve different problems, which would have counseled against combining their respective teachings. For example, the alleged sealed battery device in Malewski with pre-installed batteries is not activated until, e.g., an activation key is pushed into an ON position. *See* Ex. 1007, 1:6-10, 7:66-8:9; Petition, 38. In contrast, DeLuca '487's replaceable battery detector includes a lockout actuator, which moves from an obstructed to an unobstructed position when batteries are inserted—thereby allowing mounting the base to a mounting bracket. Ex. 1006,

2:19-41. Petitioner has failed to explain how Malewski's activation-key-induced obstruction (per Petitioner) is similar to a replaceable battery detector (DeLuca '487) with a lockout actuator that allows mounting when batteries are inserted in a battery compartment. Indeed, even the '158 Patent recognized that issues with replacement battery devices are avoided by sealed battery devices (Ex. 1001, 1:20-62), underscoring the incompatibility of these different devices that would have further counseled against combining features of Malewski and DeLuca's different devices. Ex. 1001, 1:20-62.

Second, Petitioner appears to argue that Malewski and DeLuca '487 are “directed towards bracket-mounted, battery-operated, smoke detector systems capable of being turned on and off during the life of the alarm,” which is allegedly a further motivation to combine. Petition, 38. This assertion ignores critical distinctions between the references' teachings. For example, Malewski describes alarms that can be “turned on and off as necessary,” which, per Petitioner, is allegedly similar to DeLuca '487's battery replacement where the user can allegedly “activate and deactivate the alarm repeatedly (by removing or inserting the batteries).” *Id.*

However, even if DeLuca '487's device can be activated by battery insertion/removal, Malewski seeks to avoid activation immediately upon battery

insertion into the device and instead provides functionality that requires a separate activation even if the batteries are pre-installed. *See* Ex. 1007, 3:21-23, 8:2-4, 1:24-29. Thus, unlike DeLuca '487 where the device is allegedly activated upon battery insertion, Malewski avoids this by requiring a separate activation (e.g., pushing in an activation key). *See id.* Thus, activation in Malewski is not similar to the alleged activation by battery insertion in DeLuca '487 (and therefore does not provide a motivation to combine).

Third, Petitioner alleges that Malewski and DeLuca '487 include features that prevent deactivated alarms from being mounted, such that “incorporating the reactivation prevention mechanism from DeLuca '487 ... would have been a simple substitution of one known element for another to obtain a predictable result.” Petition, 38. However, given the above-described differences between the Malewski and DeLuca '487 devices, Petitioner has not explained how or why a lockout actuator for a replaceable battery compartment in DeLuca '483 would be implemented within a sealed/non-replaceable battery device in Malewski, which uses a separate activation key for device activation.

Fourth, for its argument that a POSITA would be motivated to combine Malewski and DeLuca '487, Petitioner cites expert testimony, which, as discussed in §VI.B.2.c.2 includes numerous additional motivations to combine arguments and

embedded cites to sections providing wholesale modifications of Malewski's device in view of Watson and DeLuca '487. *See* Petition, 38-40 (citing Ex. 1002, ¶¶473-480). As described in §VI.B.2.c, the Petition does not explain any of these assertions nor does it explain how or why these citations render the claim limitations obvious based on Malewski and DeLuca '487 (or are pertinent to such a finding). These arguments are therefore entitled to no weight. *See* §VII *infra*.

Fifth, Petitioner argues that STP2003 provides “explicit motivation to combine” Malewski and DeLuca '487 because “one of the entities considering changes to the governing standards was actually considering ways to incorporate reattachment prevention mechanisms into existing smoke alarms.” *Id.*, 38-39. As described in §VI.A.3.c, STP2003 does not disclose or suggest any reattachment prevention mechanism. Instead, STP2003 proposes a deactivation means (which Petitioner alleges is the permanent deactivation mechanism) “shall render the unit incapable of being reinstalled” (Ex. 1008, 6)—but this disclosure does not teach/suggest a separate mechanism that allegedly prevents attachment. Thus, Petitioner's allegation that STP2003 provides the requisite motivation for a reattachment prevention mechanism is also flawed.

Sixth, Petitioner alleges that these references would be combined given their similarities and a POSITA would combine these references “with an expectation of

success, avoiding excessive or overly-burdensome experimentation.” Petition, 39. Beyond this conclusory allegation, the Petition provides no explanation and instead cites expert testimony that largely mimics the Petition’s conclusory assertions. *Id.* (citing Ex. 1002, ¶¶302-303). The cited testimony also internally cites §IX.B of the declaration, which describes Dr. Pratt’s proposed modification to Malewski’s device in view of DeLuca ’487 (which is absent from the Petition, and therefore entitled to no weight). *See* §VII *infra*.

Even if considered, Dr. Pratt’s manufactured designs of how he would combine Malewski and DeLuca ’487 to meet the claims lack any objective underpinning, and Dr. Pratt has not provided any independent or contemporaneous evidence demonstrating why a POSITA would have modified the device as he proposes. On this record, unsupported testimony of Petitioner’s expert that manufactures modifications to devices to allegedly read on the claims, constitutes impermissible hindsight bias that should be rejected.

For the above reasons, Petitioner has failed to demonstrate motivation to combine these references.

Nevertheless, even if these references are combined into a hypothetical device despite the lacking motivations for doing so, the resulting hypothetical device still does not disclose or suggest reattachment prevention upon permanent deactivation,

as required by the claims. Malewski does not provide reattachment prevention after the second portion is permanently deactivated (§VI.B.2.c *supra*) and same is true for DeLuca '487 given that its lockout actuator allows mounting when the correct number of batteries (dead or alive) are inserted in the battery compartment. §§VI.C.3.b, VI.C.4 *infra*.

3. *Malewski in view of DeLuca '487 Does Not Render Obvious Claims 1-7*

a) *Malewski in view of DeLuca '487 Does Not Render Obvious [1c]-[1d]*

Petitioner's analysis incorporates by reference its Ground 2 analysis to argue that Malewski renders these limitation obvious. Petition, 40-41. This argument fails as explained in §VI.B.2.a.

b) *Malewski in view of DeLuca '487 Does Not Render Obvious [1f]*

Petitioner's analysis first incorporates by reference its Ground 2 analysis to argue that Malewski renders this limitation obvious. Petition, 41. This argument fails as explained in §VI.B.2.b-c.

Petitioner alternatively contends that DeLuca '487, which was also considered during prosecution, renders this limitation obvious given its disclosure of the "lockout actuator 56 which can move between obstructing and non-obstructing positions." Petition, 41-42. This argument is flawed.

First, Malewski does not disclose or suggest that its second portion cannot be reactivated when it has been deactivated (*see* §VI.B.2.b). DeLuca '487 similarly does not disclose this feature because its second portion would be reactivated when its inactive batteries are replaced. *See* Ex. 1006, 2:9-44. DeLuca's device, at best, is temporarily deactivated and can be subsequently reactivated (i.e., no permanent deactivation in DeLuca). *See id.*

Second, the Petition fails to explain how a lockout actuator for a battery compartment in a detector with replaceable batteries—as allegedly disclosed in DeLuca '487—would be implemented or applied in a device with a sealed battery where the batteries are not replaceable, as allegedly disclosed by Malewski. *See* Petition, 37-46.

Third, assuming *arguendo* that the actuator could be implemented in Malewski's device and the base (second portion) cannot be reactivated upon deactivation, DeLuca '487 confirms that the lockout actuator allows the base to be reattached to the mounting bracket (first portion), contrary to the claim's requirement. *See* §VI.B.2.c (devices allowing reattachment of the first and second portions after permanent deactivation do not meet the present limitation). Specifically, in DeLuca '487, once the correct number of batteries is inserted—regardless of whether they are dead or alive, the force of the spring is overcome and

the lockout actuator slides laterally toward a non-obstructing position to allow mounting. Ex. 1006, 5:11-14. Because the first and second portions can be so reattached (e.g., upon insertion of the correct number of batteries), the combination does not teach or suggest reattachment prevention (i.e., “the second portion cannot be reattached to the first portion”) when the second portion is deactivated.

This deficiency in DeLuca ’487 also infects Petitioner’s additional argument based on the joint teachings of Malewski’s activation key and DeLuca’s lockout actuator—“when the user pulls the key of Malewski out to deactivate the alarm, the lockout mechanism spring force [of DeLuca ’487] is not overcome and the mechanism extends, preventing reattachment.” Petition, 40. As explained above, DeLuca ’487’s lockout actuator would allow reattachment upon any alleged permanent deactivation, and same is true for Malewski’s activation key. Thus, even if the references could be combined (despite the Petition failing to explain how that would be done), the proposed combination still fails to disclose or suggest reattachment prevention upon permanent deactivation—i.e., they fail to suggest that “the second portion cannot be attached to the first portion” after the second portion’s deactivation.

4. *Malewski in view of DeLuca '487 Does Not Render Obvious Claims 12-15*

a) *Malewski in view of DeLuca '487 Does Not Render Obvious [12d]*

Petitioner incorporates its claim 1 analysis to contend that Malewski renders this limitation obvious. Petition, 44. As explained in §§VI.B.2.b and VI.B.3.a, Malewski does not render obvious permanent deactivation of the second portion, and Petitioner has failed to demonstrate how or why any alleged permanent deactivation functionality or mechanism in Watson would be implemented in Malewski. Therefore, Petitioner has failed to demonstrate that Malewski renders this limitation obvious.

b) *Malewski in View of DeLuca '487 Does Not Render Obvious [12e]*

Petitioner incorporates by reference its Ground 2 analysis to argue that Malewski renders this limitation obvious. Petition, 45. However, as explained in §§VI.B.2.c and VI.B.3.b, Malewski does not render this limitation obvious.

Similar to its claim 1 analysis, Petitioner alternatively contends that DeLuca '487's lockout actuator 56 is the claimed reattachment prevention mechanism because, when the lockout actuator is in the obstructing position, the lockout tab "prevents the base from being reattached to the bracket." *Id.* As explained in §§VI.B.2.c and VI.B.3.b *supra*, in the context of the '158 Patent, the present

limitation does not encompass any device or an associated component that allows reattachment of the first and second portions once the second portion is permanently deactivated. DeLuca '487's lockout actuator allows reattachment of the alleged first and second portions, particularly once the alleged second portion is permanently deactivated. Therefore, even if the lockout actuator were implemented in Malewski's device, the proposed combination would still not render this limitation obvious. *See* §§VI.B.2.c, VI.B.3.b, VI.C.3.b.

D. GROUND 4: Malewski in View of STP2003 Does Not Render Obvious the Challenged Claims

The Petition advances similar motivations to combine for this Ground that it advances in view of Ground 3. *See* Petition, 46-47 (contending that the two references are in the same field of smoke detectors, and STP2003 allegedly motivates inclusion of reattachment prevention mechanisms). However, as explained in §VI.C.2 *supra*, Petitioner's presented motivations are flawed. Even if the teachings of Malewski and STP2003 would be combined, the proposed combination does not render obvious the Challenged Claims, as explained below.

1. Malewski in view of STP2003 Does Not Render Obvious Claims
1-7

Petitioner incorporates by reference its Ground 2 analysis to argue that Malewski renders limitations [1c]-[1d] obvious. Petition, 48. However, as explained in § VI.B.2.a *supra*, Malewski does not render these limitations obvious.

Malewski also does not render obvious [1f] (which recites “when deactivated, the second portion cannot be reactivated”) as described in § VI.B.2.b, and Petitioner does not contend that STP2003’s teachings in combination with Malewski render this limitation obvious. Petition, 48-49 (focusing instead on reattachment prevention based on STP2003). Additionally, the Petition fails to explain how/why STP2003’s proposal of the detector being rendered incapable of being reinstalled upon deactivation would be implemented within the context of Malewski’s device that is designed to do the opposite, given its teaching of repeated reinstallation/uninstallation for repeated reactivation/deactivation. *See* Petition, 49-50. Thus, Petitioner has failed to demonstrate that the proposed combination renders [1f] obvious.

2. *Malewski in view of STP2003 Does Not Render Obvious Claims*
12-15

a) *Malewski in view of STP2003 Does Not Render Obvious*
[12d]

Petitioner contends that Malewski renders this limitation obvious for reasons described in Ground 2. Petition, 52. As explained in §§VI.B.2.b, VI.B.3.a, Malewski does not render this limitation obvious.

b) *Malewski in View of STP2003 Does Not Render Obvious*
[12e]

Petitioner contends that Malewski renders this limitation obvious for reasons described in Ground 2. Petition, 52. As explained in §§VI.B.2.c and VI.B.3.b *supra*, Malewski does not render this limitation obvious.

Petitioner alternatively contends that STP2003 renders this limitation obvious by reiterating STP2003's proposal that "deactivation means shall require the use of a tool, or equivalent, and shall render the unit incapable of being reinstalled" (similar to its Ground 1 argument). *Id.*, 52-53 (citing Ex. 1008, 6). As explained in §VI.A.3.c, STP2003 does not render obvious the claimed reattachment prevention mechanism. Because Malewski and STP2003 do not disclose or suggest this claimed mechanism, even if the references could be combined, their collective teachings would not render obvious this claim feature.

E. GROUND 5: Byrne '354 in view of Byrne '311 Does Not Render Obvious the Challenged Claims

1. Overview of Byrne '354

Byrne '354 discloses an alarm with replaceable batteries “which may be opened after installation in a simpler and more convenient manner” while “minimi[z]ing possible exposure to mains supply.” Ex. 1009, ¶[0004]. To replace the battery, the user “disengages the fixtures” using “a screwdriver and pushes the alarm body” in the opposite direction until the lips “disengage from the sides of the apertures” and the “terminal spades” have “separated from the alarm body terminals in the base.” *Id.*, ¶[0032].

2. Overview of Byrne '311

Byrne '311 discloses a single-piece alarm device with a sealed battery, noting that its device includes a battery chamber “within which the battery is located to prevent user access to the battery.” Ex. 1010, 2:12-14. When the battery has reached the end of its life, a user uses a sharp tool to “cut a piece of wire” to “prevent battery-low indications being emitted after” the detector “has been discarded.” *Id.*, 6:21-24; 1:25-29. Byrne '311 does not discuss how its device is mounted to a surface.

3. *Petitioner Has Failed to Demonstrate How or Why a POSITA Would Have Combined Byrne '354 and Byrne '311*

The Petition advances multiple motivations to combine these references (*see* Petition, 54-55), each of which is flawed.

First, Petitioner argues that there is a motivation to combine these references because both are allegedly “directed towards life safety alarm devices.” *Id.* Simply because both references relate to life safety alarm devices is an insufficient motivation to combine their teachings. *See* §VI.C.2 *supra*.

Again, Petitioner fails to appreciate that both references relate to different devices that solve different problems, which would have counseled against combining their teachings. Byrne '354 discloses two-part smoke alarms with replaceable/rechargeable batteries where it's the device is intended to reused. Ex. 1009, ¶¶[0005], [0028], [0002]. In contrast, Byrne '311 discloses single-use one-piece smoke alarms with sealed batteries that do not “need to” be replaced, and the device is discarded at the end of the battery's life. Ex. 1010, 1:2-15.

Relatedly, Petitioner also ignores that even the '158 Patent recognized that issues with replacement battery devices are avoided by sealed battery devices (Ex. 1001, 1:26-59), underscoring the incompatibility of these different devices that would have further counseled against combining features of such different devices disclosed in these references.

Second, Petitioner attempts to argue that both references allegedly relate devices that are user activated. Petition, 54. However, Petitioner fails to explain why both devices being user-activated provides a motivation to combine—particularly given that both are activated differently. *Id.* (Byrne '354 involves “twisting the alarm onto the mounting base,” while Byrne '311 involves “pressing a button in the alarm enclosure”).

Third, Petitioner contends that a POSITA would have had a “strong motivation to combine” the two references because they list the “same inventor” and are “assigned to the same assignee, meaning they likely resulted from the same work.” *Id.* (citing *Black v. CE Soir Lingerie Co.*, No. 2:06-CV-544, 2008 WL 3852722, at *14 (E.D. Tex. Aug. 15, 2008), *aff'd*, 319 F. Appx 901 (Fed. Cir. 2009)). Petitioner’s reliance on *CE Soir Lingerie* is misplaced.

CE Soir found “strong motivation to combine” where two of the prior art patents were patented by the same inventor **and** “the **majority of the [] patent’s claims [could] be found**” in the two patents and one of the references listed the other on its face as a prior art patent. 2008 WL 3852722, at *14. The court concluded that “[g]iven that the patents **reference each other** and deal with **remarkably similar subject matter**,” there was a strong motivation to combine the references. *Id.* Unlike in *CE Soir Lingerie*, Byrne '354 and Byrne '311 (despite allegedly sharing

inventorship and ownership) described different subject matter, one does not reference the other, and each reference implicates different claims.

Fourth, Petitioner alleges that “[g]iven the similarities between Byrne ’354 and Byrne ’311, a POSITA would have combined these references with an expectation of success, avoiding excessive or overly-burdensome experimentation.” Petition, 54-55. Petitioner provides no support for this conclusory allegation beyond a citation to the expert declaration, which generally mimics these conclusory assertions. *Id.* (citing Ex. 1002, ¶¶367-369). The cited testimony also includes an embedded citation to §VII of the declaration—a 56-paragraph section that describes the alleged state of the art. Ex. 1002, ¶¶369. Beyond this internally cross-referenced testimony (and even assuming this incorporation by reference of 56 paragraphs of testimony is permissible (*see* §VII *infra*)), Petitioner does not offer any rationale for how or why the state of the art demonstrates a motivation to combine these references. And if this testimony is intended to suggest that certain features were known, it was incumbent on Petitioner to explain how or why those features would be combined with the teachings of these references.

Fifth, Petitioner’s reliance on STP2003 for the “explicit motivation to combine” these references also fails for the same reasons described with reference to §VI.C.2 above.

Sixth, Petitioner proposes that the proposed combination would “function as a smoke alarm system with an activation function that results from installation onto a mounting bracket, and a permanent, destructive deactivation function.” Petition, 55. Petitioner further argues that “a POSITA’s further concern with preventing deactivated and non-operational alarms from being mounted to a mounting bracket would inspire a mounting prevention function, such as those known in the art.” *Id.* Petitioner cites ¶¶370-384, 35-40, and 63-85 of Dr. Pratt’s declaration—but none of the cited testimony supports Petitioner’s assertion. Ex. 1002, ¶¶370-384, 35-40, 63-85. Paragraphs 370-384 refer to Dr. Pratt’s testimony on how the claim 1 limitations are allegedly satisfied by the combination—and fail to address the alleged motivation. *Id.* Paragraphs 35-40 refer to Dr. Pratt’s overview of the ’445 Patent, and paragraphs 63-85 provide Dr. Pratt’s overview of the state of the art. *Id.* Again, however, Petitioner has failed to explain how any of this testimony demonstrates a motivation to combine Byrne ’354 and Byrne ’311.

Therefore, Petitioner has failed to demonstrate motivation to combine Byrne ’354 and Byrne ’311. Further, even if the teachings of these references could be combined, the proposed combination does not render obvious the claims, as explained below.

4. *Byrne '354 in View of Byrne '311 Does Not Render Obvious Claims 1-7*

a) *Byrne '354 in View of Byrne '311 Does Not Render Obvious [If]*

The proposed combination does not render obvious this limitation, as explained below.

First, Petitioner argues that “deactivation by the means described in Byrne '311, which teaches a user physically disabling the connection between the power source and the control circuit of the alarm [i.e., cutting the wire], could be applied to the alarm of Byrne '354,” and such application would result in “the physical removal of the connection between the power source and the control circuitry of the alarm.” Petition, 59-60. However, Petitioner provides no reason why a POSITA would incorporate Byrne '311's wire-cutting into Byrne '354's alarm.

Nor would there be any reason to do so considering the function and operation of these references. Byrne '311 involves devices with sealed batteries (that cannot be removed), such that there is a perceived need to eliminate the emission of battery-low indications by permanently disabling (via the described wire-cutting) the connection between the power source and the alarm's control circuit of the alarm when the battery is low. In contrast, Byrne '354 involves devices with replaceable

batteries and its base is intended to be reused, such that Byrne '311's wire-cutting would prevent the alarm from being operated after battery replacement.

Second, even if this wire cutting teaching could be implemented in the Byrne '354 device (*Id.*, 59 (citing Ex. 1010, 5:15-19)), Petitioner provides no explanation regarding why the wire-cutting prevents reattachment of the first and second portions.

Third, Petitioner argues that attaching the alarm body of Byrne '354 to its base “causes the terminal spades 39 to enter the mouths 32 and 35 of the alarm body terminals to create an electrical connection.” *Id.*, 59 (citing Ex. 1009, ¶[0031]). Petitioner further contends that the body can be detached from the base Petition, 58. Even if that were the case, disabling the connection between the power source and the control circuit via the described wire-cutting may make the device nonfunctional because the alleged first and second portions cannot be reattached.

Fourth, Petitioner cites paragraphs 378-384 of Dr. Pratt's expert declaration. Petition, 59-60. Paragraphs 380-381 cite various documents (including the 1999 NFPA 72, the 2000 International Fire Code, and UL217). Not only does this constitute improper incorporation by reference (*see* §VII *infra*), these documents also do not “require a feature that ensures such a smoke detector deactivated as

disclosed in Byrne '311 cannot be mounted while appearing operational,” as Dr. Pratt incorrectly argues. *Id.*, ¶383.

5. *Byrne '354 in View of Byrne '311 Does Not Render Obvious Claims 12-15*

a) *Byrne '354 in view of Byrne '311 Does Not Render Obvious [12e]*

The proposed combination does not render obvious this limitation, as explained below.

First, Petitioner identifies Byrne '311's one-way OFF switch that exposes a wire that can be cut (which is identical to Petitioner's mapping for [12d]). Petition, 65-66. Because the claim recites separate mechanisms for permanent deactivation and reattachment prevention, Petitioner cannot rely on the same component(s) for both.

Even assuming *arguendo* that Petitioner can rely on the same component(s) in a cited reference to disclose both the permanent deactivation mechanism and the reattachment prevention mechanism, no mechanism in Byrne '311 prevents reattachment. Petitioner provides no explanation regarding how Byrne '311's wire cutting—which ““prevent[s] battery-low indications being emitted after [the device] has been discarded”—prevents reattachment of the second portion to the first portion. Ex. 1010, 1:25-29.

Additionally, the sharp object that cuts the wire cannot be the claimed reattachment prevention mechanism because this claimed mechanism must be part of the claimed device. Nor does Byrne '311 disclose or suggest that this object or the cutting of the wire prevents reattachment of the alleged first and second portions.

Second, Petitioner asserts that attaching the alarm body of Byrne '354 to its base “causes the terminal spades 39 to enter the mouths 32 and 35 of the alarm body terminals to create an electrical connection.” Petition, 65 (citing Ex. 1009, ¶[0031]). This also does not teach or suggest any reattachment prevention.

Third, Petitioner argues that “deactivation by the means described in Byrne '311, which teaches a user physically disabling the connection between the power source and the control circuit of the alarm [i.e., cutting the wire], could be applied to the alarm of Byrne '354,” and such application would result in “the physical removal of the connection between the power source and the control circuitry of the alarm.” *Id.* Again, Petitioner provides no reason why a POSITA would incorporate the wire cutting in Byrne '311 into the alarm of Byrne '354. Nor would there be any reason to do so, per §VI.E.4 *supra*.

Fourth, Petitioner cites paragraphs 402-408 of Dr. Pratt's expert declaration. Petition, 65-66. Paragraphs 405-407 in turn cite various standards documents (including the 1999 NFPA 72, the 2000 International Fire Code, and UL217). Ex.

1002, ¶¶405-407. As explained above, these arguments constitute improper incorporation by reference and fail to disclose or suggest any mechanisms that prevent reattachment. *See id.*

Fifth, Dr. Pratt also provides no support for his conclusory assertion that it would “be obvious to incorporate *a means* to prevent reattachment of the smoke detector once it has been deactivated,” and a “straightforward way to ensure this is the case would be to include a reattachment prevention mechanism that ensures that the smoke detector cannot be re-mounted or a hinged cover that cannot be closed.” *Id.*, ¶407. Again, this argument is not presented in the Petition. Even if considered, Dr. Pratt does not explain what the alleged reattachment prevention mechanism would be (instead only referring to it in non-structural terms as “a means”), how such an alleged mechanism would be implemented in the proposed combination, or how such mechanism would prevent reattachment.

F. GROUND 6: Byrne ’311 in view of DeLuca ’487 Does Not Render Obvious Claims 12-15

1. Petitioner Has Failed to Demonstrate How or Why a POSITA Would Have Combined Byrne ’311 and DeLuca ’487

At the outset, Petitioner has failed to demonstrate that a POSITA would have combined the teachings of Byrne ’311 and DeLuca ’487. While Petitioner advances

multiple motivations to combine the teachings of these two references (Petition, 66-68), the presented motivations are flawed.

First, Petitioner argues that because Byrne '311 and DeLuca '487 disclose battery-operated life safety alarms, a POSITA would have been motivated to “incorporate known features of both alarms to solve issues common to all smoke alarm systems.” *Id.*, 66-67. To support this conclusion, Petitioner cites to *Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373 (Fed. Cir. 2023). *Id.* This is an oversimplification of what’s required to demonstrate motivation to combine.

Intel recognized that “‘universal’ motivations known in a particular field to improve technology provide ‘a motivation to combine prior art references even absent any hint of suggestion in the references themselves.’” *Intel Corp.*, 61 F.4th at 1380 (recognizing “increasing energy efficiency” as a “generic concern” in electronics)). However, Petitioner cursorily points to “issues common to all smoke alarm systems,” and does not identify any such “universal” motivation in the field of smoke alarms or the alleged common issues. Petition, 66-67.

Petitioner further fails to acknowledge that both references solve different problems, which would have counseled against combining their teachings. Byrne '311 discloses single-use one-piece smoke alarms with sealed batteries that are not intended to be replaced (Ex. 1010, 1:2-15), whereas DeLuca '487 contemplates a device

with removable or replaceable batteries, and its disclosed battery lockout mechanism is intended to be unlocked once the correct number of batteries is inserted. *See* Ex. 1006, 2:19-41. Petitioner has failed to demonstrate why these references would be combined despite their teachings of different devices that solve different problems.

Second, Petitioner also argues that both references are similar because they both “express concern for situations where users think an alarm is operational, when it is not.” Petition, 67. Per Petitioner, DeLuca ’487 relates to devices with replaceable batteries and addresses unlocking a battery lockout actuator of the alarm when “all the battery slots are filled,” and Byrne ’311 has “a stand-alone alarm ‘without need to replace batteries’ to prevent ‘accidental disconnect of the battery.’” *Id.* However, Petitioner fails to explain why the “stand-alone alarm ‘without need to replace batteries’” of Byrne ’311 addresses or relates to Petitioner’s above-stated concern, and again, Petitioner fails to acknowledge that the references disclose different devices. *Id.*

Additionally, Petitioner fails to explain why a POSITA would incorporate the battery lockout mechanism of DeLuca ’487 (which unlocks once the correct number of batteries is inserted) into Byrne ’311, since Byrne ’311’s device does not use replaceable batteries. Further, Byrne ’311 is silent as to mounting of its single-piece alarm, so a POSITA would not seek prevent the mounting of the device by looking

to the alleged two-piece alarm of DeLuca '487. In light of these differences, it is conclusory to state that a POSITA “would have looked to incorporate the ‘extremely simple’ deactivation method taught in Byrne '311, with the well-known functionality of installation prevention as taught in DeLuca '487.” *Id.*

Third, Petitioner’s reliance on expert testimony does not remedy the above deficiencies because the expert testimony largely mimics the Petition and is therefore similarly deficient. Ex. 1002, ¶¶412-413. Additionally, the cited expert testimony includes an embedded citation to over 60 paragraphs articulating the alleged state of the art. *Id.* (citing *id.*, ¶¶63-128). Again, Petitioner fails to explain how this testimony bears on the motivation to combine Byrne '311 and DeLuca '487.

Fourth, Petitioner’s argument that STP2003 provides “explicit motivation to combine” these references also fails for the reasons described in §VI.C.2 above. *See* Petition, 67.

Fifth, Petitioner further alleges that each of Byrne '311 and DeLuca '487 “function in the same manner as in their respective sources and are therefore simply a rearranging of known components in accordance with known methods to provide predictable results.” *Id.*, 68. However, beyond this conclusory statement, Petitioner fails to account for the numerous deficiencies described above that confirms that the references’ teachings cannot simply be “rearranged” to provide predictable results

with any reasonable expectation of success, as Petitioner incorrectly and conclusorily asserts.

Sixth, Petitioner alleges that “given the similarities between Byrne ’311 and DeLuca ’487, a POSITA would have been able to combine these references with an expectation of success, avoiding excessive or overly-burdensome experimentation.” *Id.* Again, the Petition provides no explanation for this conclusory assertion and instead cites to 31 paragraphs of expert declaration that either mimic this assertion or cite back to the state-of-the-art sections (¶¶412-413, 35-40, and 63-85). *Id.* (citing Ex. 1002).

Thus, Petitioner has failed to demonstrate that a POSITA would have been motivated to combine these references.

2. *Byrne ’311 in View of DeLuca ’487 Does Not Render Obvious Claims 12-15*

a) *Byrne ’311 in View of DeLuca ’487 Does Not Render Obvious [12e]*

The Petition notes that Byrne ’311 “does not describe how the alarm device is mounted to a wall or ceiling, leading a POSITA to look to other alarm devices to find a mounting section.” Petition, 70-71. The Petition then relies on DeLuca ’487 to meet this claim limitation. *Id.*, 71. Similar to its Ground 3 analysis, Petitioner contends that DeLuca ’487’s lockout actuator 56 (the alleged reattachment

prevention mechanism) meets this limitation. *Id.* As explained in §VI.C.3.b, the claimed reattachment prevention mechanism does not encompass any device or an associated component that allows reattachment of the first and second portions once the second portion is permanently deactivated. DeLuca '487's lockout actuator would allow reattachment of the first and second portions, even when the alleged second portion is permanently deactivated.

Moreover, a POSITA would have no reason to combine the DeLuca '487's lockout actuator, which is actuated by battery insertion, with Byrne '311's device that does not use replaceable batteries.

Thus, Byrne '311 in view of DeLuca '487 does not render obvious the claimed reattachment prevention mechanism.

VII. THE PETITION'S PERVASIVE AND EXPANSIVE INCORPORATION BY REFERENCE OF EXPERT TESTIMONY WARRANTS DENIAL OR AT LEAST, THE INCORPORATED TESTIMONY SHOULD BE GIVEN NO WEIGHT

Petitioner repeatedly cites numerous paragraphs of Dr. Pratt's expert declaration, without developing any of the associated arguments in the Petition. Most of the Petition's incorporation by reference falls into two categories:

- (1) The Petition concludes the analysis for each limitation by citing paragraphs 35-40 and 63-85 of Dr. Pratt's testimony (spanning 13 pages).
See Petition, 11-72 (citing these paragraphs 128 times). Paragraphs 35-40

provide an overview of the '158 Patent, and paragraphs 63-85 discuss the alleged state of the art. However, Petitioner does not explain the relevance of these 29 paragraphs to the obviousness analysis. Moreover, the cited testimony also internally cross-references an additional 56 paragraphs (¶¶63-118) relating to the state of the art. *See, e.g.*, §VI.E.3.

Petitioner bears the burden of explaining why/how something allegedly well-known in the art would be applied or implemented in the context of the disclosures used in each ground. *See* §§VI.A.2-3.

- (2) For Grounds 2-4, (especially the claimed reattachment prevention aspects of the independent claims), the Petition cites 44 paragraphs (spanning 30 pages) of Dr. Pratt's testimony that purports to have "designed several examples of modifications to the prior art which demonstrate the ease and feasibility [of] the various grounds for invalidity discussed above." Ex. 1002, ¶436; *see* §VI.B.2.c.2 *supra*.

This incorporated testimony is notable because the Petition does not describe these modifications and the cited testimony manufactures new unpatentability grounds based on Watson—which is not part of the Grounds—and articulates "four examples of modifications" based on Watson. *See* Ex. 1002, ¶¶450-472.

Taken together, the Petition repeatedly cites 73 paragraphs (§§35-40, 63-85, 437-480) (spanning about 45 pages and over 5500 words) of expert testimony that the Petition neither discusses nor develops, and these citations thus improperly serve as a vehicle to inject additional unpatentability theories that are absent from the Petition.

Such pervasive incorporation by reference violates PTAB rules. Multiple panels confronted with similar incorporation of expert testimony have either denied institution or accorded little or no weight to the testimony. *See* 37 C.F.R. § 42.6(a)(3); *DirecTV, LLC v. Qurio Holdings, Inc.*, IPR2015-02007, Paper 6 at 25-26 (PTAB Apr. 4, 2016) (refusing to consider arguments only raised through nearly 40 pages of declaration testimony with no explanation); *Hopkins Mfg. Corp. v. Cequent Performance Prods.*, IPR 2015-00616, Paper 9 at 14-15 (PTAB Aug. 17, 2015) (given pervasive incorporation by reference, focusing review on the argument and evidence actually presented in the Petition); *Whole Space Indus. Ltd. v. Zipshade Industrial*, IPR2015-00488, Paper 14 at 12-13 (PTAB July 24, 2015) (refusing to consider arguments incorporated by reference to support conclusory statements in the Petition, because such incorporation by reference “obscur[ed] the arguments and evidence by requiring the Patent Owner and the Board to sift through the entire Declaration to locate specific, relevant arguments”); *Apple Inc. v. ContentGuard*

Holdings, Inc., IPR2015-00451, Paper 9 at 10-11 (PTAB July 13, 2015) (denying Petition and refusing to “play archaeologist with the record”; finding that “the Petition generally does not stand on its own”; noting that use of the Declaration to “vastly expand ... thin analysis and reasoning violates our rules” because it circumvents word counts and “runs afoul of the particularity and specificity required of supporting evidence”); *International Business Machines Corp. v. Intellectual Ventures II LLC*, IPR2014-00673, Paper 18 at 4-5 (PTAB Dec. 23, 2014) (denying institution where the Petition cited expert testimony without a “detailed explanation of the significance of the [27 cited] paragraphs”); *Cisco Sys. Inc. v. C-Cation Techs., LLC*, IPR2014-00454, Paper 12 at 8 (PTAB Aug. 29, 2014) (citing “large portions of another document, without sufficient explanation of those portions, amounts to incorporation by reference”).

Consistent with the above precedent, Patent Owner submits that the above-described incorporated expert testimony is an independent basis for denial of institution. Alternatively, the testimony incorporated by reference into the Petition should be given no weight. As in the above-cited cases, the Petition advances a significant number of arguments solely by incorporation by reference. For example, the Petition cites large portions of expert testimony to advance, e.g., (1) new unpatentability grounds based solely on Watson in Grounds 2-4 (*see* §VI.B.2 *supra*;

e.g., Petition, 27-35), (2) new obviousness theories and modifications of devices based Malewski, Watson, and DeLuca '487 (Petition, 29-54; Ex. 1002, ¶¶437-480), (3) alternative arguments for multiple grounds and multiple limitations (*see, e.g.*, Petition, 64 (citing Ex. 1002, ¶¶399-401), and (4) concluding obviousness by pointing to the expert's recitation of the alleged state of the art without any explanation. *See, e.g.*, §VI.B.2.c.2 *supra*.

Moreover, the Petition includes 13,985 words, and Petitioner's incorporation by reference adds at least 5500 additional words (when just accounting for testimony at ¶¶35-40, 63-85, and 437-480). This effectively brings the total word count to over 19,450 words, far exceeding the Petition's word count limits and forcing Patent Owner to mine the record to identify numerous additional arguments not advanced in the Petition.

Thus, and for additional reasons described in §VI *supra*, the Petition's pervasive incorporation by reference of large portions of Dr. Pratt's testimony warrants denial of the Petition or alternatively, attribution of no weight to the improperly incorporated testimony.

VIII. GROUNDS 2-3 SHOULD BE DISCRETIONARILY DENIED UNDER § 325(D)

As explained below, §325(d) discretionary denial is warranted for Grounds 2-3 because (1) the Petition advances the same references that were previously

presented during prosecution and (2) Petitioner has not demonstrated that the Office erred in a manner material to the patentability. *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 7-8 (PTAB Feb. 13, 2020) (precedential).

A. The Grounds 2-3 References Were Previously Presented to the Office

1. Malewski (and Watson) Were Previously Presented to the Office

Grounds 2 and 3 include citations to Malewski, and some of these citations refer to features of Watson, which is incorporated by reference into Malewski. *See, e.g.*, Petition, 27-34, 41-43. Additionally, as noted in §VI above, Dr. Pratt's testimony presents multiple unpatentability arguments based on Watson alone. *See* §VI.B.2 *supra*.

Malewski and Watson were both presented to the Office during prosecution. Both were cited in an IDS, which was considered by the Examiner. Ex. 1004, 99, 135. *See Peloton Interactive, Inc. v. iFit, Inc.*, IPR2022-00029, Paper 13 at 13 (PTAB Apr. 22, 2022) (IDS references considered by the examiner constitute previously presented art); *Advanced Bionics*, Paper 6 at 7-8.

Watson was also substantively applied in obviousness rejections entered during the prosecution of this patent and the related '445 Patent. Ex. 1004, 125-132; Ex. 2001, 69-70, 95-98. Indeed, the Examiner asserted that certain disclosures in

Watson teach the claimed permanent deactivation mechanism, and Petitioner relies on these same portions for the same claim feature. Ex. 1004, 131-32; Petition, 31.

2. DeLuca '487 Was Previously Presented to the Office

DeLuca '487 was cited in an IDS, which was subsequently considered by the Examiner. Ex. 1004, 135.

Notably, this case is unlike those where IDS submissions make up hundreds of references. Instead, here, DeLuca '487, Malewski, and Watson were among only 24 total references cited across two IDSs.

B. Petitioner Has Failed to Show Material Error by the Office

Per Petitioner, the Petition should not be discretionarily denied under §325(d) because the claims “have not been considered in view of the testimony of Kidde’s expert (Dr. Reinholtz) or Petitioner’s expert (Dr. Pratt). They have also not been considered in view of STP2003, Byrne '354, or Byrne '311.” Petition, 6. Petitioner further contends that “[w]hile Malewski and DeLuca '487 were cited, these references were not (a) used to reject the claims or (b) considered in combination with the other references or the expert testimony in this or the testimony or Drs. Pratt or Reinholtz.” *Id.* None of these arguments demonstrate material error, as explained below.

First, Patent Owner contends that discretionary denial is warranted for Grounds 2 and 3 here, which only relate to DeLuca '487 and Malewski. That the Petition relies upon STP2003, Byrne '354, and Byrne '311 in other grounds does not speak to any material error during prosecution in consideration of DeLuca '487 and Malewski.

Second, Petitioner's allegations that Malewski or DeLuca '487 were not "used to reject the claims" are insufficient to demonstrate material error. Petitioner does not offer any precedent suggesting otherwise. This assertion also omits that Watson—which Petitioner leverages in its arguments—was applied in a rejection. As explained above, Petitioner relies upon Watson's teachings that were also relied upon by the Examiner. Ex. 1004, 131-132 (citing Ex. 1005, 5:1-18); Petition, 31. This refutes—rather than confirms—that there was material error during prosecution.

Third, Petitioner's allegation that Malewski or DeLuca '487 were not "considered in combination with the other references or the expert testimony in this or the testimony of Drs. Pratt or Reinholtz" does not demonstrate error. Petition, 6. Malewski and DeLuca '487 are not applied in combination with any "other references" in Grounds 2 and 3—which form the basis for Patent Owner's 325(d) arguments. And, Petitioner cannot demonstrate material error with a conclusory

allegation that Examiner did not consider combinations or expert testimony provided with the Petition. *Ivantis, Inc. et al. v. Sight Sciences, Inc.*, IPR2022-01533, Paper 14 at 18-20 (PTAB Mar. 27, 2023) (finding no material error where Petitioner argued that the asserted references were not applied during prosecution); *Google LLC v. Kewazinga Corp.*, IPR2021-00527, Paper 16 at 18-19 (PTAB Aug. 24, 2021) (denying institution where Petitioner did not “identify any specific teaching in any reference that the Examiner misapprehended or overlooked” and did not “point out how the Examiner erred in evaluating the references”); *Roku, Inc. v. Universal Elecs., Inc.*, IPR2019-01619, Paper 11 at 11, 19 (PTAB Apr. 2, 2020) (denying institution where a petition’s relied-upon reference was disclosed in an IDS but Petitioner failed to explain how the Examiner erred).

Relatedly, Petitioner fails to identify any error by the Examiner in considering Malewski, Watson, and DeLuca ’487. Indeed, Petitioner’s 325(d) analysis does not even grapple with the prosecution history or the reasons for allowance to substantiate any assertion of the Examiner overlooking or misunderstanding aspects of these references during prosecution.

Fourth, Petitioner contends that assertion of assignor estoppel in litigation would make IPR “the only avenue for Petitioners to challenge” the ’158 Patent.

Petition, 6. Even if true, Petitioner cites no authority suggesting that an assignor estoppel defense counsels against discretionary denial under 325(d).

In summary, the art in Grounds 2 and 3 was previously presented to the Office and Petitioner has failed to show material error during prosecution. Therefore, discretionary denial under 325(d) is warranted for these Grounds. *See Google LLC v. Valtrus Innovations, Ltd.*, IPR2022-01197, Paper 18 at 19-24, 28-29 (PTAB June 13, 2023) (denying a subset of grounds under §325(d); finding Petitioner failed to explain “with specificity” how the Office materially erred).

IX. CONCLUSION

For the foregoing reasons, Patent Owner requests denial of institution.

Respectfully submitted,

Date: 09/15/2023

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CERTIFICATION UNDER 37 C.F.R. §42.24(d)

Under the provisions of 37 C.F.R. §42.24(d), the undersigned hereby certifies that the word count for the foregoing Patent Owner's Preliminary Response to Petition totals 13,997, which is less than the 14,000 allowed under C.F.R. §42.24(b)(1).

Respectfully submitted,

Date: 9/15/2023

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§42.6(e), the undersigned certifies that on September 15, 2023, a complete and entire copy of this Patent Owner's Preliminary Response and supporting exhibits were provided via email to Petitioners by serving the correspondence email address of record as follows:

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