

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 IPR2023-00898
Patent 7,525,445

PATENT OWNER'S PRELIMINARY RESPONSE

PATENT OWNER'S LISTING OF EXHIBITS

- Ex. 2001** *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)
- 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** U.S. Patent No. 6,297,745 (“Meier”)

TABLE OF CONTENTS

I. Introduction.....	1
II. The '445 Patent.....	4
III. Prosecution History Summary.....	8
IV. Person of Ordinary Skill in the Art (POSITA).....	9
V. Claim Construction.....	9
VI. The Petition's Grounds Do Not Render Obvious the Challenged Claims	10
A. GROUND 1: STP2003 Does Not Render Obvious the Challenged Claims.....	10
1. Overview of STP2003	10
2. STP2003 Does Not Render Obvious "An Activation Mechanism to Activate the Second Portion"	10
3. STP2003 Does Not Render Obvious "A Permanent Deactivation Mechanism to Permit Permanent Deactivation of the Second Portion After the Second Portion Has Been Activated"	13
4. 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"	15
B. GROUND 2: Malewski Does Not Render Obvious the Challenged Claims	18
1. Overview of Malewski	18
2. Malewski Does Not Render Obvious "A Permanent Deactivation Mechanism to Permit Permanent Deactivation of the Second Portion After the Second Portion Has Been Activated"	20
3. Malewski Does Not Render Obvious "A Reattachment Prevention Mechanism to Prevent Reattachment of the First and Second Portions Once the Second Portion is Permanently Deactivated"	23
C. GROUND 3: Malewski in view of DeLuca '487 Does Not Render Obvious the Challenged Claims	30
1. Overview of DeLuca '487	30

2. Petitioner Has Failed to Demonstrate How or Why a POSITA Would Have Combined Malewski and DeLuca '487	31
3. Malewski in view of DeLuca '487 Does Not Render Obvious “A Permanent Deactivation Mechanism to Permit Permanent Deactivation of the Second Portion After the Second Portion Has Been Activated”	36
4. Malewski in View of DeLuca '487 Does Not Render Obvious “A Reattachment Prevention Mechanism to Prevent Reattachment of the First and Second Portions Once the Second Portion is Permanently Deactivated”	37
D. GROUND 4: Malewski in View of STP2003 Does Not Disclose or Render Obvious the Challenged Claims	39
1. Malewski in view of STP2003 Does Not Render Obvious “A Permanent Deactivation Mechanism to Permit Permanent Deactivation of the Second Portion After the Second Portion Has Been Activated”	40
2. Malewski in View of 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.”	40
E. GROUND 5: Byrne '354 in view of Byrne '311 Does Not Render Obvious the Challenged Claims	41
1. Overview of Byrne '354	41
2. Overview of Byrne '311	41
3. Petitioner Has Failed to Demonstrate How or Why a POSITA Would Have Combined Byrne '354 and Byrne '311	42
4. Byrne '354 in view of Byrne '311 Does Not Render Obvious “A Reattachment Prevention Mechanism to Prevent Reattachment of the First and Second Portions Once the Second Portion is Permanently Deactivated”	46
F. GROUND 6: Byrne '311 in view of DeLuca '487 Does Not Render Obvious the Challenged Claims	49
1. Petitioner Has Failed to Demonstrate How or Why a POSITA Would Have Combined Byrne '311 and DeLuca '487	49
2. Byrne '311 in View of DeLuca '487 Does Not Render Obvious “A Reattachment Prevention Mechanism to Prevent Reattachment of the First and Second Portions Once the Second Portion is Permanently Deactivated”	53

VII. The Petition’s Pervasive and Expansive Incorporation by Reference of expert Testimony Warrants Denial of the Petition or at a Minimum, the Incorporated Testimony Should Be Given No Weight	53
VIII. Grounds 2-3 Should be Discretionarily Denied Under § 325(d).....	59
A. The References Relied Upon in Grounds 2 and 3 Were Previously Presented to the Patent Office.	60
1. Malewski (and Watson) Were Previously Presented to the Office.....	60
2. DeLuca ’487 Was Previously Presented to the Office.....	61
B. Petitioner Has Failed to Show Material Error by the Office.....	61
IX. Conclusion	64

I. INTRODUCTION

The Petition should not be instituted because the '445 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 '445 Patent's "invention" focuses on "battery powered electronic devices" where "the batteries are sealed inside the device to prevent" battery access. Ex. 1001, 1:16-21. Such devices can include a first portion (e.g., a mounting bracket) and a second portion (e.g., an alarm portion) that includes the battery and that is mounted/attached to the first portion. *Id.*, 3:60-4:4. However, even with such 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 the above-described dangerous conditions. *See id.*, 2:34-45, 1:42-59.

To address these issues, the '445 Patent discloses sealed-battery devices with a permanent deactivation mechanism to prevent reactivation of the alarm portion once the alarm portion has been permanently deactivated, and a reattachment prevention mechanism that prevents the alarm portion from being reattached to the

mounting bracket once the alarm portion has been permanently deactivated. *See, e.g., id.*, 7:53, 8:1-6. This reduces the above-described risks associated with non-functioning or improperly functioning alarms. *Id.*, 1:53-59.

The feature of reattachment prevention upon permanent deactivation was what led to allowance of the '445 Patent's claims. Ex. 1024, 119-124. Indeed, the Examiner found this 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. *See id.*, 107-108, 119-124 (finding that the art of record does not disclose that "when deactivated, ... the second portion cannot be reattached to the first portion").

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, none of the Petition's references—STP2003, Malewski, DeLuca '487, Byrne '354, and Byrne '311—alone or in the presented combinations, disclose or render obvious the claimed reattachment prevention mechanism that prevents reattachment of the alleged first and second portions upon permanent deactivation of the second portion. *See* §§VI.A-F *infra*. Additionally, Petitioner has failed to meet its burden with respect to at least the permanent deactivation limitation in multiple presented grounds. *Id.* Further still, Petitioner advances motivations to combine (e.g., in Grounds 3-6) that

are flawed because they seek to combine unrelated and incompatible features of two different types of devices (i.e., sealed-battery devices and devices with replaceable batteries). *Id.* Indeed, Petitioner ignores that the '445 Patent sought to provide a sealed battery device to avoid the “improper use” and “user mistakes” stemming from detectors with replaceable batteries (Ex. 1001, 1:16-2:4), which would have also counseled against Petitioner’s proposed combinations of teachings of such devices with those having sealed/non-replaceable batteries.

Additionally, Petitioner seeks a second bite of the apple in Grounds 2-3 by leveraging the same references (Malewski, Watson, and DeLuca '487) that were previously considered during prosecution. Petition, 16-27; Ex. 1024, 69-70, 72, 95-98. Given this overlap between the references relied upon in Grounds 2-3 and the art of record, Petitioner had the burden to demonstrate that the Office erred in a manner material to patentability. Petitioner failed to show any such error, thus warranting discretionary denial under 35 U.S.C. §325(d).

Finally, the Petition also violates established Board rules and precedent by incorporating by reference voluminous portions of Dr. Pratt’s expert declaration to advance new unpatentability grounds and alternative theories, and substantiate conclusory statements regarding obviousness—without discussing or developing such arguments in the Petition. The Petition’s pervasive incorporation by reference circumvents established word counts, and unduly prejudices Patent Owner by

forcing it to mine for incorporated arguments and address them within the POPR's allotted word count. Such incorporation by reference thus warrants denial of the Petition. In the alternative, the incorporated testimony should be given no weight.

For these reasons and as described further herein, the Petition fails to establish a reasonable likelihood of success on the merits, thus warranting denial of institution.

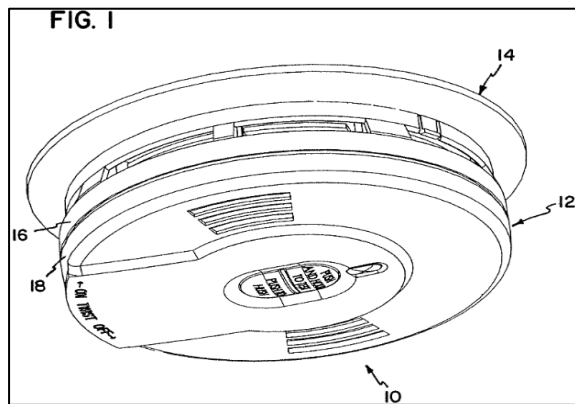
II. THE '445 PATENT

The '445 Patent's "invention" relates to "electronic devices, especially life safety alarms," with sealed batteries that are "less prone to user mistakes." Ex. 1001, 1:16-21, 2:9-10.

The '445 Patent acknowledges the numerous risks associated with life safety alarms that have replaceable batteries, including difficult battery replacement when "the alarm is mounted high on a ceiling or is located in a relatively inaccessible location," inadvertent user installation of depleted batteries "such that they have insufficient power for proper alarm operation," "improper[] install[ation]" of batteries, and lack of installation of batteries. *Id.*, 1:47-56.

The '445 Patent also recognizes other issues present in the field of life safety alarms even when the batteries are not replaceable. *Id.*, 1:59-67. For example, some alarms may permit a user to activate and deactivate an alarm "as many times as the user desires," and some designs require the user to "manually activate the alarm before the alarm can be attached to the mounting bracket." *Id.*

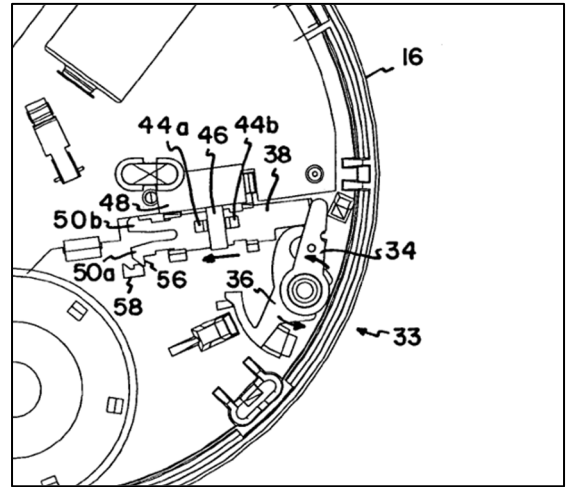
To avoid the above-identified risks, the '445 Patent's alarm includes batteries sealed in its alarm portion (thereby preventing access to the batteries and in doing so, avoiding the above-described risks with battery replacement). *Id.*, 2:11-13. 3:60-4:4 (describing two-piece alarms, including an alarm portion and mounting bracket to which the alarm portion can be attached). The '445 Patent's alarm also eliminated the need for additional "user interaction" beyond "attaching the alarm portion to the mounting bracket" to "activate the alarm," avoiding situations where users "mistakenly forget to activate the alarm." *Id.*, 2:34-37. Further, the '445 Patent's alarm prevents reinstalling a deactivated alarm portion, since it is "designed to prevent reattachment of the alarm portion to the mounting bracket" upon permanent deactivation. *Id.*, 2:40-45.



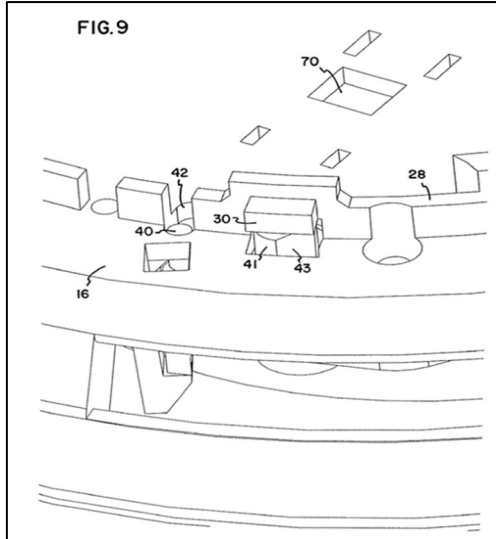
To these ends, the '445 Patent discloses a smoke alarm 10 that includes an alarm portion 12 and a mounting bracket 14, as shown in FIG. 1 (left). *Id.*, 3:60-4:4. The alarm portion 12 is "designed to be

detachably connected to the mounting bracket 14." *Id.*, 4:18-19.

The activation and deactivation of the alarm 10 is controlled by an activate/deactivate system 33, as shown in FIG. 5 (right). *Id.*, 4:60-5:1. This activate/deactivate system 33 includes a “rotate activate component 34 which forms a portion of an activation mechanism,” a “rotate deactivate component 36” which forms a portion of a ... permanent deactivation mechanism, and “an activate/deactivate slider 38 which is part of both [mechanisms].” *Id.*



As depicted below in FIG. 9, when a user attaches the alarm portion 12 to the

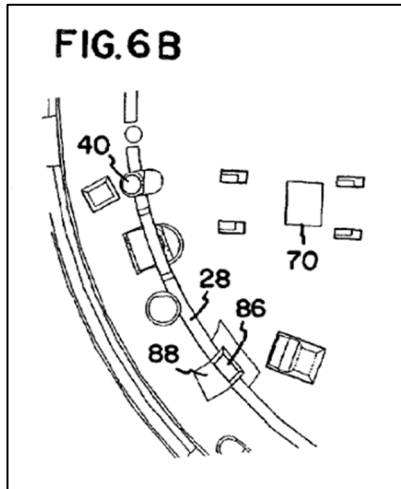


bracket 14, a flat side 43 of a boss 41 (which is part of the activate component 34) “is engaged by a portion of one of the flanges ... [of the bracket 14] which actuates the boss 41 inward closer to the circumference of the flange 28” of the upper surface of the top enclosure 16. *Id.*, 5:26-29; 4:23-30. This movement of the boss 41 “causes

rotation of the activate component 34, which in turn causes the sliding movement of the slider 38 to the ON position.” *Id.*, 5:29-33. Slider 38’s movement “results in

movement of [a switch actuating] tab 46” which actuates switch 48. *Id.*, 5:38-41. Switch 48’s “[a]ctuation ... activates the alarm.” *Id.*

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

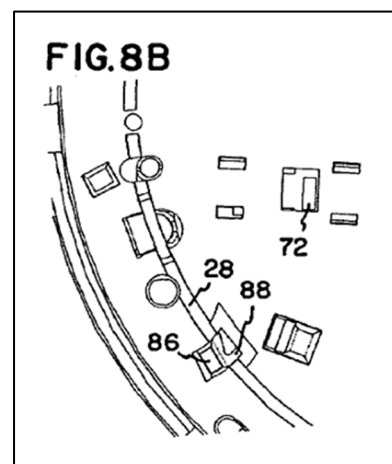


using a tool ... engaged in” slot 72, slider 38 can be moved to the DEACTIVATED position. *Id.*, FIG. 6B (left), 6:5--14 (slider 38 access is “only permissible” when alarm portion 12 is detached from bracket 14). This “deactivates the switch 48 which deactivates the alarm 10.” *Id.*, 6:14-16. When the switch 48 is

deactivated, “a circuit in the alarm portion automatically drains remaining power from the batteries.” *Id.*, 6:20-22.

When slider 38 is moved to the DEACTIVATED position, “rotate deactivate component 36 [] rotate[s] counterclockwise to a locked position.” *Id.*, 6:28-32.

Rotate deactivate component 36 further includes “a tab 86 that projects upwardly through a hole 88 in the top enclosure 16,” and, when the rotate deactivate component is in the locked position, tab 86 “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.*, 6:34-56, FIG. 8B (above, right).



In this manner, the '445 Patent provides a sealed battery alarm that can include mechanisms to activate and permanently deactivate the alarm portion, as well as a reattachment prevention mechanism prevents reattachment of the alarm portion to the mounting bracket upon permanent deactivation.

III. PROSECUTION HISTORY SUMMARY

The application for the '445 Patent claims priority to a provisional application filed on August 29, 2003 (Critical Date). Ex. 1024, 3.

During prosecution, the Examiner rejected the pending claims (pending claims 30-48) on non-statutory obviousness-type double patenting (OTDP) grounds over U.S. Patent 7,123,158 (which is the parent of the '445 Patent) and on prior art-based grounds. *Id.*, 64-73. Specifically, the Examiner deemed claims 30-40 as allowable over the art, but rejected claims 41-46 and 48 based on two references—Meier (Ex. 2004) and Watson (Ex. 1005). *Id.* In support of these rejections, the Examiner provided the following pertinent finding and rationale: “Watson teaches the battery not being replaceable by the user (column 3, lines 17-25). Making the battery protected from user replacement would allow the device to be fully replaced when a battery runs out which would help to prevent other electronic components from failing from extended use. Therefore, it would been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Meier according to the teachings of Watson to seal the battery.” *Id.*, 69-70.

Subsequently, Applicant incorporated into the independent claim 41, the allowable subject matter of claim 47, which was also present in the allowable claims 30-40. *Id.*, 107-108. Claim 41 was amended to recite “wherein, when deactivated, the second portion cannot be reactivated and the second portion cannot be reattached to the first portion”). *Id.* With this amendment, the claims were allowed. *See id.*, 119-124; Ex. 1001, 1.

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

For purposes of this POPR only, Patent Owner does not dispute Petitioner’s proffered identification of a POSITA’s skill level. *See* Petition, 5; Ex. 1002, ¶31.

V. CLAIM CONSTRUCTION

Patent Owner submits that the claim terms should be construed according to the *Phillips* standard. *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005); 37 C.F.R. §42.100. In the parallel litigation, the Court held that multiple claim terms should be accorded their plain and ordinary meaning. Ex. 1019; Ex. 2001. Patent Owner has applied the same interpretation for those terms in this proceeding. *See id.*

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 the document 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, 6. While those words are literally in the reference, STP2003 does not explain what the “means” to activate and deactivate the power are, or how they would be implemented in any device.

As explained below, STP2003 does not render obvious the Challenged Claims.

2. STP2003 Does Not Render Obvious “An Activation Mechanism to Activate the Second Portion”

Petitioner contends that STP2003’s disclosure of a “means to activate the power” of a smoke alarm constitutes the claimed “activation mechanism,” as recited

in claim 8. Petition, 13. However, this disclosure does not teach or suggest the claimed activation mechanism as explained below.

An activation *mechanism* requires a mechanical device for “activat[ing] the second portion,” but STP2003 discloses or suggests no such activation mechanism. For example, the ’445 Patent’s specification identifies a mechanical device as an example of the activation mechanism. *See* Ex. 1001, 5:35-41 (using “activation” mechanisms synonymously with known actuators, such as switches and tabs, by referring to “switch actuating tab 46” as being connected with actuating electronic switch 48, which activates the device). As another example, a textbook in the mechanical arts defines mechanisms as mechanical devices. *See* Ex. 2002, 5. Even Petitioner’s expert has previously testified that a “mechanism is a mechanical device where you have more than one component working in concert with one another.” Ex. 2003, 48:11-49:12.

STP2003 does not disclose or suggest any “mechanism” or mechanical device for activating the alleged second portion (or, activation of power, as interpreted by Petitioner). Instead, STP2003 discloses a proposal to add a “means to activate the power,” which does not address whether any alleged device would include an activation *mechanism* that performs the claimed activation.

The only other evidence that Petitioner cites that appears to address the claimed “activation mechanism” in the context of STP2003 is paragraph 127 of Dr.

Pratt's expert declaration. Petition, 13 (citing Ex. 1002, ¶127). In that paragraph, Dr. Pratt states that (1) a "POSA would understand 'means to activate the 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 to activate the second portion." Ex. 1002, ¶127. This argument is flawed in multiple respects.

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]" 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) (citing *In re Oelrich*, 666 F.2d 578, 581-82 (CCPA 1981) ("The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient [to establish inherency]"¹).

Second, Dr. Pratt appears to be arguing that "mechanism" is a nonce word that lacks any meaning and could be disclosed by anything. Ex. 1002, ¶127. If Dr.

¹ Emphasis added throughout unless otherwise noted.

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. 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. 2001, 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 only underscores that the “means for activation of power” in STP2003 lacks structure. Ex. 1002, ¶127. As such, STP2003 lacks structure or description of any activation “mechanism” and therefore fails to render obvious the claimed “activation mechanism.”

3. *STP2003 Does Not Render Obvious “A Permanent Deactivation Mechanism to Permit Permanent Deactivation of the Second Portion After the Second Portion Has Been Activated”*

Petitioner argues that STP2003’s proposal that “deactivation means” that shall “serve to completely discharge the battery(ies)” constitutes the claimed “permanent deactivation mechanism.” Petition, 13. STP2003 does not disclose or suggest this limitation for the below reasons.

First, Petitioner fails to identify any “mechanism” in STP2003 that permits the alleged permanent deactivation. As described in §VI.A.2 *supra*, “mechanism” requires a mechanical device, and, for this claim limitation, that mechanical device permits “permanent deactivation of the second portion.” STP2003 proposes a “deactivation means” but, as Petitioner’s expert acknowledges, “means” is a nonce/non-structural term (*see* Ex. 1002, ¶127), and does not impart any structure to that term, much less suggest that “such deactivation means” constitutes a mechanical device. STP2003 thus does not describe or suggest any mechanical device that permits the alleged “permanent deactivation.”

Second, STP2003’s proposal that “deactivation means shall require the use of a tool or equivalent” does not disclose or suggest the claimed “permanent deactivation mechanism.” Petition 13-14. This disclosure does not suggest any mechanism in the alleged device contemplated by STP2003. And, if Petitioner is asserting that “a tool or equivalent” in STP2003 is the claimed “permanent deactivation mechanism,” that assertion also fails because the claims require that the device include the “permanent deactivation mechanism” such that a separate tool, as recited in STP2003, cannot be the claimed “permanent deactivation mechanism.”

4. 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”

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, 14. This argument is flawed for the below reasons.

First, Petitioner appears to map to STP2003’s “deactivation means” for both the claimed “permanent deactivation mechanism” and “reattachment prevention mechanism.” *Id.*, 13-14. Given that STP2003 discloses that the “deactivation means ... shall render the unit incapable of being reinstalled” (*id.*, 14 (citing Ex. 1008, 6)), any alleged reattachment prevention contemplated by this disclosure 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 the claimed “permanent deactivation mechanism” as well as 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) (explaining that “two separate [claim] elements” “logically cannot be ... the same”).

Second, if Petitioner is asserting 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 “[t]he 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, 14. Specifically, this assertion does not necessarily follow from STP2003’s disclosure, because STP2003 proposes that the deactivation means itself should render the unit incapable of being installed. Even assuming *arguendo* that this disclosure 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 in STP2003. Specifically, Petitioner cites paragraph 132 of Dr. Pratt’s declaration, which refers to an alleged reattachment prevention mechanism in DeLuca ’487 (Ex. 1006), and then 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, 14 (citing Ex. 1002, ¶132). As a threshold matter, Petitioner’s expert addresses what *could* be done, as opposed to 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 (*see* §VI.C.4 *infra*).

Even assuming *arguendo* DeLuca ’487 teaches the claimed reattachment prevention mechanism (which it does not), Petitioner fails to explain how any alleged reattachment prevention mechanism in DeLuca ’487 would be used or implemented in the context of STP2003 or why it would be obvious to do so. *See* Ex. 1002, ¶132. Indeed, STP2003’s cited disclosures are proposals for devices with sealed batteries, whereas DeLuca ’487 is directed to devices with replaceable batteries, where the batteries have to be inserted into the device before the device can be mounted. Ex. 1008, 6; Ex. 1006, 2:9-18. Petitioner has not provided any explanation why a particular feature relating to battery replacement from DeLuca ’487’s removable battery device would be implemented within a sealed, non-replaceable battery device, as allegedly proposed in STP2003.

Finally, the Petition cites deposition testimony of Patent Owner’s expert, Dr. Reinholtz, in support of its analysis. Petition, 14 (contending that Dr. Reinholtz

testified that a POSITA “would have understood ... reattachment prevention mechanisms as of” the ’445 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 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. Thus, STP2003 does not render obvious the claimed “reattachment prevention mechanism.”

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

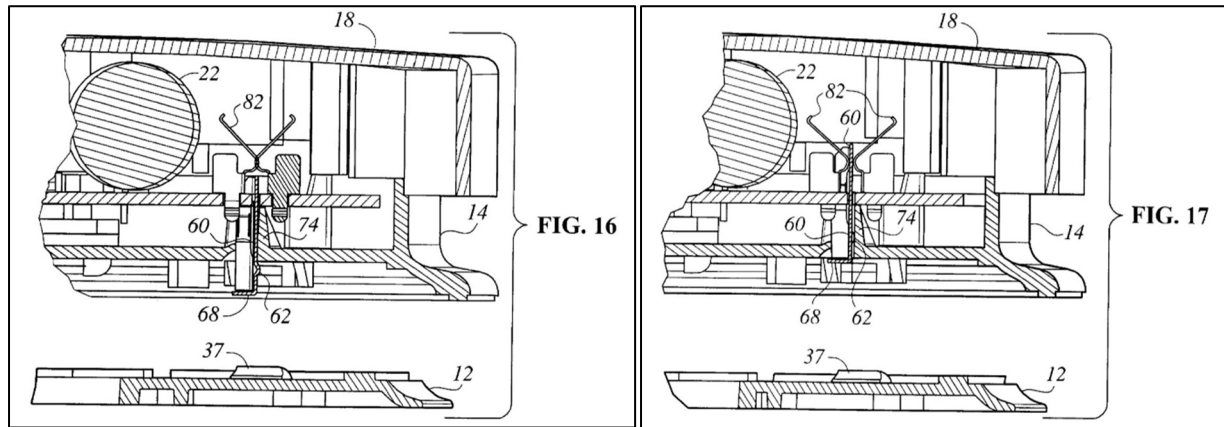
1. Overview of Malewski

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 be 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—the opposite of the permanent deactivation and

reattachment prevention requirements in the '445 Patent.

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 installation/uninstallation of the device (which is not feasible in Watson). *Id.*, 1:8-10. Malewski enables the 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).



As explained below, Malewski does not render obvious the limitations of the Challenged Claims.

2. *Malewski Does Not Render Obvious “A Permanent Deactivation Mechanism to Permit Permanent Deactivation of the Second Portion After the Second Portion Has Been Activated”*

Malewski does not disclose this claim limitation in the description of its invention, and Petitioner does not contend otherwise. Petition, 18-19. Malewski instead describes *repeated* activation/deactivation and attachment/detachment of its device. Ex. 1007, 1:8-10.

Instead, and despite providing a ground based on Malewski, the Petition seizes upon the teachings of Watson for this limitation, noting that “Malewski describes a permanent deactivation mechanism via Watson.” Petition, 18-19 (citing Ex. 1005, 2:35-43, 4:9-13, 4:34-51; Ex. 1007, 1:35-58). However, for the below reasons, Petitioner’s independent reliance on Watson as an alleged extension of Malewski’s disclosure results in an inoperable combination and fails to demonstrate obviousness of this limitation.

First, Petitioner omits that Watson is incorporated by reference only to show the state of the art. *See* Ex. 1007, 1:35-58, 2:35-38 (stating only that Watson, “particular the figures therein, [is] incorporated by reference for [its] showing of current state-of-the-art”). Incorporation by reference into Malewski to show the state of the art is insufficient to 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 mechanism would be implemented in Malewski’s device and why a POSITA would have been motivated to so modify Malewski’s device, particularly when this modification is not readily described or suggested in Malewski. Petitioner does not explain why a POSITA would combine Malewski and Watson other than the generic assertion that Malewski incorporates Watson. Petition, 18-19. Indeed, it is improper to cherry-pick specific components in two different references to allegedly arrive at the claimed device—without any explanation or rational underpinning for such a 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. Specifically, Watson discloses a long-life battery-powered detector with a switch that is “rotate[d] ... to a battery ‘drain’ position in which a second switch may be actuated to drain the battery” and thereafter the “unit is discarded.” Ex. 1005, 1:5-10, 4:45-56; Ex. 1007, 1:50-54. As Malewski recognizes, Watson is either silent or “foreclose[s]” any “retrograde motion” of this switch that would allow for multiple activation/deactivation of the device. Ex. 1007, 1:54-58. In contrast, Malewski seeks to overcome deficiencies in the prior art—including Watson—by providing a detector with “an on/off switching mechanism that has a physical multiple use (multiuse) capability.” Ex. 1007, 3:13-17. In other words, unlike Watson’s device, which has a “single-use” switch that drains the battery and does not allow reactivation, Malewski’s device includes a multi-use switch that “can be used, *repeatedly*, to activate/deactivate an electrical circuit.” *Id.*, 3:13-17, Title. Unsurprisingly, given Malewski’s stated goal of repeated activation and deactivation, Malewski’s description does not disclose or suggest a Watson-like single use switch that would result in battery being drained and thereby being permanently deactivated as Petitioner alleges. *See generally* Ex. 1007, 3:13-9:4.

Against this backdrop, Petitioner 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 fails to make any such showing and therefore fails to demonstrate the instant limitation is obvious in view of Malewski. *See* Petition, 18-19; Ex. 1002, ¶¶156-162.

3. *Malewski Does Not Render Obvious “A Reattachment Prevention Mechanism to Prevent Reattachment of the First and Second Portions Once the Second Portion is Permanently Deactivated”*

Petitioner alleges that the claimed reattachment prevention mechanism maps to Malewski's “activation key 60” because, per Petitioner, “[w]hen [the activation] key 20 [(sic)] is in the off position, bottom ledge 68 protrudes from base 14, where it interferes with making the bayonet-type connection between base 14 and mounting bracket 12.” Petition, 19 (citing Ex. 1007. 8:4-7). Petitioner's arguments fail for reasons described below.

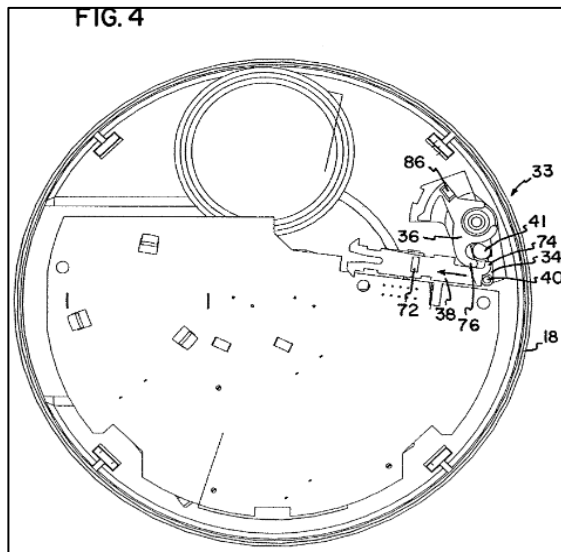
a) *Malewski's Activation Key Allows—Rather Than Prevents—Reattachment of the Alleged Second Portion to the First Portion*

The operation of Malewski's device confirms that the “activation key” does not “prevent reattachment of the first and second portions once the second portion is permanently deactivated,” as recited in the claims.

To the contrary, the claim unequivocally states that the claimed reattachment prevention mechanism “*prevent[s] reattachment* of the first and second portions

once the second portion is permanently deactivated.” Devices where the first and second portions can be reattached would not be within the scope of this claim.

And consistent with the claims, the '445 Patent's specification describes mechanisms that prevent any reattachment of the alarm portion (second portion) to the mounting bracket (first portion) once the alarm portion has been permanently deactivated. The specification states that its “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, 1:16-21, 2:8-17, Title.



Because the batteries are not replaceable in such devices, the alarm is deactivated at the end of its life, and “when deactivated,” the “invention” “mechanically prevent[s]” the deactivated alarm portion “from being mounted back on the mounting bracket.” *Id.*, 2:31-33. As depicted on the

left, the alarm portion includes a slider 38, which when moved from the ON position to the DEACTIVATED position,” causes “the rotate deactivate component 36” to “rotate counterclockwise to a locked position.” *Id.*, 6:29-33. The rotate deactivate component 36 includes “a tab 86 that projects upwardly through a hole 88 in the top

enclosure 16,” and, when the rotate deactivate component is in the locked position, the tab 86 “moves outwardly beyond the circumference of the flange,” thereby preventing the alarm portion 12 from being reattached to the bracket 14. *Id.*, 6:34-46.

The ’445 Patent explains that such a mechanism that prevents reattachment of an alarm portion with a depleted battery (i.e., one that has been permanently deactivated) avoids “highly dangerous” situations stemming from inoperable units being reattached and thus, not generating an alarm when a life-threatening condition does occur. Ex. 1001, 1:42-59; *see also* Ex. 1002, ¶80 (Petitioner’s expert acknowledging “[a] smoke detector with a sealed battery that has been permanently deactivated and then reinstalled onto the ceiling would not satisfy the performance criteria of NFPA 72 8-2.1 because the required operation (i.e., signals alerting of fire) cannot be obtained”). Thus, to prevent dangerous conditions stemming from reattachment of an inoperable alarm portion upon its permanent deactivation, the ’445 Patent provides the above-described reattachment prevention mechanism that 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 after deactivation. *See* Ex. 1001, 6:35-56.

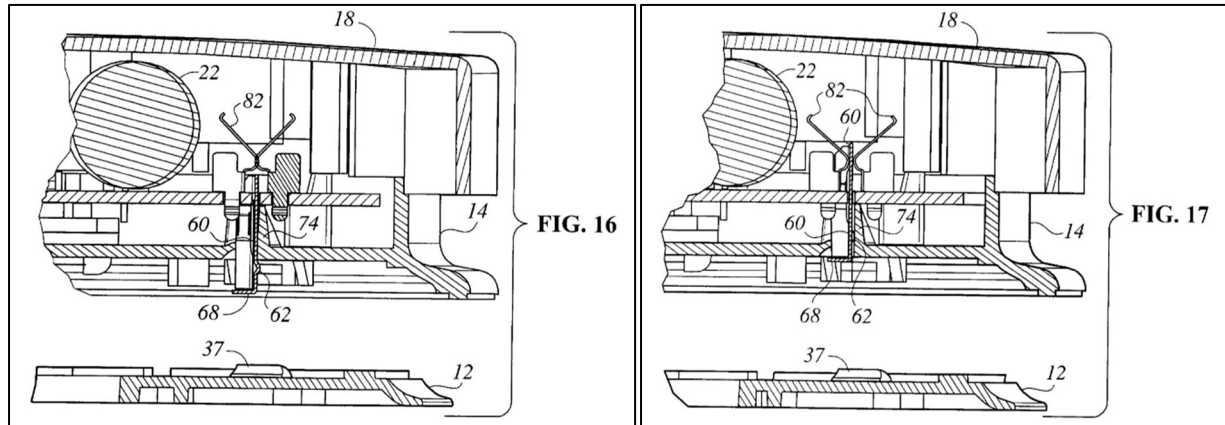
Such a reattachment prevention mechanism that prevents reattachment of the first and second portions was found to be absent from the references of record during

prosecution, which includes Malewski, Watson, DeLuca '487, and Belano, on which the Petition or the accompanying declaration rely. Ex. 1024, 119-124. Malewski allows for repeated reattachment/detachment of the base from the mounting bracket, 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 receiving the correct number of batteries. *See* Ex. 1007, 7:66-8:9; Ex. 1006, 2:9-18; Ex. 1036, 2:32-54; Ex. 1002, ¶116. Thus, these references disclose devices that allow—rather than prevent—reattachment of a second portion to a first portion. Unsurprisingly, when confronted with this same reference 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. 1024, 119-124.

Given this intrinsic record, the present limitation does not encompass devices with second portions that can be reattached to the first portion, particularly after the second portion has been permanently deactivated.

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, it can then be reattached to the mounting bracket upon pushing in the activation key. *See 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, And, because the present limitation in the context of the intrinsic record does not encompass any device, Malewski does not

render obvious the claimed feature “a reattachment prevention mechanism to prevent reattachment of the first and second portions” upon permanent deactivation.

*b) Malewski’s Device Does Not Prevent Reattachment
“Once the Second Portion is Permanently Deactivated”*

As described in §VI.B.2 *supra*, Malewski does not disclose or render obvious permanent deactivation of the second portion, and, consequently, Malewski also does not render obvious a device that prevents reattachment of the alleged first and second portions “*once the second portion is permanently deactivated.*”

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

After presenting its arguments in the Petition for this limitation, Petitioner concludes by noting that “Malewski renders this claim element obvious” and then citing 91 paragraphs of expert testimony. Petition, 20 (citing Ex. 1002, ¶¶163-180, 35-40, 63-85, 281-324). These paragraphs include an overview of the ’445 Patent (¶¶35-40), a discussion of the alleged state of the art (¶¶63-85), arguments about alleged motivations to combine Malewski and Watson (¶¶163-180), and proposals regarding independent modifications to each of the Malewski and Watson devices (¶¶281-324). And in paragraphs 163-180, Dr. Pratt includes multiple additional citations to Belano, the 1999 NFPA 72 and the 2000 International Fire Code, an embedded citation to Section VII (¶¶63-118, discussing the alleged state of the art),

and another embedded citation to Section IX.A (¶¶281-316, discussing proposed modifications to Malewski and Watson). Ex. 1002, ¶¶163-180.

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 in great detail motivations to combine Watson and Malewski, and additionally presents 44 paragraphs of testimony describing how each of Malewski and Watson, independently, would be modified to allegedly render the present limitation obvious. Again, none of these arguments are even discussed in the Petition.

Thus, via its sweeping incorporation by reference, Petitioner injects multiple new theories and unpatentability grounds that are not reflected in its Petition. Such wholesale incorporation by reference violates the PTAB's rules and precedent, and the incorporated testimony should be given no weight. *See* §VII *infra*; *see Apple Inc. v. ContentGuard Holdings, Inc.*, IPR2015-00442, Paper 11 at 3-4 (PTAB Nov. 3, 2015) (denying Petition and determining failure to comply with 35 U.S.C. §312(a)(3) where the Petition included “lengthy, ‘vague, nested citations to broad sections’ of the record,” improper incorporation by reference from the expert declaration, and “pervasive use of unclear internal cross references”).

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, ¶¶281-324). 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. *See id.* On this record, testimony of Petitioner's retained expert that manufactures modifications to devices to read on the claims lacks any objective basis and is nothing more than an exercise in impermissible hindsight bias.

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

1. Overview of DeLuca '487

DeLuca '487 discloses a two-piece smoke detector (including a base and a mounting bracket) with replaceable batteries. *See* Ex. 1006, 1:64-2:44. DeLuca '487 provides a "single battery lockout mechanism for a multiple battery compartment" that is "mounted on the base" and actuates from an obstructing to a non-obstructing position when the batteries are inserted to the battery 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, inserting the correct number of batteries in the battery compartment causes "the action of the spring" to be "overcome," and "the lockout actuator is moved to the non-obstructing position," which allows mounting the base to the mounting bracket. *Id.*, 2:26-31.

As explained below, Petitioner has failed to demonstrate that a POSITA would have combined the teachings of Malewski and DeLuca '487, and even if their teachings would be combined, their collective teachings do not render obvious the Challenged Claims.

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, 22-24), each of which is flawed, as explained below.

First, Petitioner argues that a POSITA would have been motivated to combine Malewski and DeLuca '487 because both references disclose smoke detectors. Petition, 22; *see id.*, 23-24. Simply because two references are in the same general field does not demonstrate a motivation to combine the two references. *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) (unpublished) (noting that broadly characterizing a reference as being in the same field, “without more, is not enough” to demonstrate “a sufficient rationale to” demonstrate obviousness)).

Indeed, Petitioner and its expert ignore that these references relate to different types of devices that solve different problems, which would have counseled against

combining their respective teachings. For example, Petitioner contends that Malewski renders obvious a sealed battery device (Petition, 18-19), and Malewski further explains that, in such a device, batteries are installed but the device is not activated until, e.g., an activation key is pushed into an ON position. Ex. 1007, 1:6-10, 7:66-8:9; Petition, 22. DeLuca '487, in contrast, provides a detector with replaceable batteries and which includes a lockout actuator that moves from an obstructed to an unobstructed position—thereby allowing mounting of the base to a mounting bracket—when a correct number of batteries are inserted in the battery compartment. Ex. 1006, 2:19-41. Petitioner has failed to explain how a sealed-battery device that uses an activation-key induced obstruction of Malewski (per Petitioner's contentions) is similar to a replaceable battery-based detector (DeLuca '487) with a lockout actuator that allows mounting upon insertion of a correct number of batteries in its battery compartment.

Indeed, even the '445 Patent recognized that issues with replacement battery devices are avoided by sealed battery devices (Ex. 1001, 1:16-2:4), underscoring the incompatibility of these different device that would have further counseled against combining features of Malewski and DeLuca '487's different devices.

Second, Petitioner appears to argue the similar activations of the Malewski and DeLuca '487 devices is a further motivation to combine. Petition, 22-23. However, this assertion fails to appreciate critical distinctions between the

references' teachings. For example, Petitioner argues that Malewski describes alarms that can be "turned on and off as necessary," which 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 device activation immediately upon battery insertion into the device and instead provides functionality that requires a separate activation even if the batteries are pre-installed in the device. *See* Ex. 1007, 3:21-23, 8:2-4, 1:24-29. Thus, unlike DeLuca '487 where the device is allegedly activated immediately upon battery insertion, Malewski avoids such immediate activation by requiring a separate activation step (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 both Malewski and DeLuca '487 include features that prevent deactivated alarms from being mounted, such that "incorporating the reactivation prevention mechanism from DeLuca '487 which automatically prevents deactivated alarm devices from being reinstalled, would have been a simple substitution of one known element for another to obtain a predictable result." Petition, 23. However, given the above-described differences between the

identified Malewski and DeLuca '487 devices, Petitioner has not explained how or why a lockout actuator for a replaceable battery compartment in DeLuca '487 would be implemented with a sealed/non-replaceable battery device that uses a separate activation key to facilitate device activation, per Malewski.

Fourth, in support of its argument that a POSITA would be motivated to combine Malewski and DeLuca '487, Petitioner cites paragraphs 191-204 of Dr. Pratt's expert declaration, which include internal citations to the 1999 NFPA 72, the 2000 International Fire Code, and an embedded citation to §IX.B of his declaration (spanning Ex. 1002, ¶¶317-324) where he discusses proposed modifications to Malewski in view of DeLuca '487. Petition, 22-24. The Petition does not explain these arguments and the underlying evidence. More importantly, the Petition does not explain how or why these citations render the claim limitations obvious based on Malewski and DeLuca '487 (or are pertinent to such a finding). Accordingly, these arguments are 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." Petition, 23. This argument is flawed. As described in §VI.A.4 *supra*, STP2003 does not disclose or suggest any reattachment prevention mechanism. Instead, STP2003 proposes a

deactivation means (which Petitioner alleges is the claimed permanent deactivation mechanism) “shall render the unit incapable of being reinstalled” (Ex. 1008, 6)—but this disclosure does not contemplate a separate mechanism that allegedly prevents attachment. *See* §VI.A.4 *supra*. Thus, Petitioner’s allegation that STP2003 provides the requisite motivation is also flawed.

Sixth, Petitioner alleges that the references would be combined given their similarities and a POSITA would have been able to combine these references with an expectation of success, avoiding excessive or overly-burdensome experimentation.” Petition, 24. Beyond this conclusory allegation, the Petition provides no explanation and instead cites ¶¶203-204 of Dr. Pratt’s expert declaration. Those paragraphs largely mimic the Petition’s conclusory assertions and then internally cite §IX.B of Dr. Pratt’s expert declaration, which refers to ¶¶317-324 and describes Dr. Pratt’s proposed modification to the Malewski device in view of DeLuca ’487. The proposed modifications are nowhere to be found in the Petition itself, and such incorporation by reference is wholly improper and entitled to no weight. *See* §VII *infra*.

Even if considered, this testimony about the proposed modifications includes Dr. Pratt’s own manufactured designs of how he would combine the teachings of Malewski and DeLuca ’487 to meet the claims (*see* Ex. 1002, ¶¶317-324). This testimony lacks any objective underpinning, nor has Dr. Pratt provided any

independent or contemporaneous evidence demonstrating why a POSITA would have so modified the device as he proposes. On this record, naked testimony of Petitioner's expert that manufactures modifications to devices to allegedly read on the claims is nothing more than an exercise in impermissible hindsight bias that should be rejected. Therefore, for the above reasons, Petitioner has failed to demonstrate a 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.3 *supra*) and the 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.4 *infra*.

3. *Malewski in view of DeLuca '487 Does Not Render Obvious "A Permanent Deactivation Mechanism to Permit Permanent Deactivation of the Second Portion After the Second Portion Has Been Activated"*

Petitioner incorporates its Ground 2 analysis to contend that Malewski renders this claim limitation obvious. Petition, 25. As explained in §VI.B.2 *supra*, Malewski does not render obvious this limitation.

4. *Malewski in View of DeLuca '487 Does Not Render Obvious "A Reattachment Prevention Mechanism to Prevent Reattachment of the First and Second Portions Once the Second Portion is Permanently Deactivated"*

Petitioner incorporates by reference its Ground 2 analysis to argue that Malewski renders this limitation obvious. Petition, 26. However, as explained in § VI.B.3 *supra*, Malewski does not render this limitation obvious.

In the alternative, Petitioner contends that DeLuca '487² renders this claim limitation obvious in view of its disclosure of the “lockout actuator 56 which can move between obstructing and non-obstructing positions.” *Id.* The Petition states that, “[i]n the obstructing position, the lockout tab prevents the base from being reattached to the bracket,” and the “lockout actuator being in an obstructing position indicates the device does not have the requisite power for operation, i.e., [] all battery receiving regions do not contain a battery and the device is inactive.” *Id.* This argument is flawed.

First, Petitioner fails to explain how DeLuca '487's teachings would be applied in the context of sealed battery device as allegedly provided in Malewski. DeLuca '487's device relates to a smoke detector with a replaceable battery and the

² Petitioner ignores that the Examiner considered DeLuca '487 during prosecution and did not deem its lockout actuator as meeting this limitation.

lockout actuator is actuated upon batteries being inserted in the battery compartment, thereby allowing attachment of the base to the mounting bracket. Ex. 1006, 2:9-44. The Petition does not explain how a lockout actuator for a battery compartment would be implemented or applied in the context of a device with a sealed battery that is not intended to be replaced. *See* Petition, 22-27.

Second, even if such an actuator could be implemented as part of Malewski's device, DeLuca '487 confirms that the lockout actuator allows reattachment of the base to the mounting bracket upon any alleged permanent deactivation of the alleged second portion, contrary to the claim's requirement. *See* §VI.B.3 (devices allowing reattachment of the first and second portions after permanent deactivation do not meet the present limitation). Specifically, DeLuca '487 explains that, once the correct number of batteries is inserted into the battery compartment, the force of the spring is overcome and the lockout actuator slides laterally towards a non-obstructing position to enable mounting. Ex. 1006, 5:11-14. The lockout actuator therefore allows reattachment of the alleged first and second portions once the appropriate number of batteries is inserted (regardless of whether the batteries are dead or alive).

This deficiency in DeLuca '487 also infects Petitioner's additional argument based on the joint teachings of the activation key and the 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, 24. As explained above, the lockout actuator of DeLuca '487 does not prevent reattachment and in fact, installing a correct number of batteries would allow reattachment. Similarly, the activation key in Malewski also does not prevent reattachment (*see* §VII.B.3 *supra*). Thus, even if both these references’ teachings are combined (despite the Petition failing to demonstrate how that would be done), the combined teachings still fail to render the claim obvious given that they allow reattachment of the first and second portions.

Third, and like Malewski (§VI.B.3 *supra*), DeLuca '487’s lockout actuator does not prevent reattachment of the first and second portions “once the second portion is permanently deactivated.” DeLuca '487 is directed to devices with replaceable batteries, such that when the batteries reach the end of their lives, the base is not permanently deactivated and is at best temporarily deactivated—until new batteries are inserted into the battery compartment. *Id.*, 2:18-30, 1:50-57.

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

The Petition advances similar motivations to combine for this Ground that it advances in view of Ground 3 based on DeLuca '487. *See* Petition, 27-28 (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*, these motivations to combine are flawed.

Nevertheless, 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 “A Permanent Deactivation Mechanism to Permit Permanent Deactivation of the Second Portion After the Second Portion Has Been Activated”

Petitioner contends that Malewski renders this claim limitation obvious for reasons described in Ground 2. Petition, 29. As explained in §VI.B.2 *supra*, Malewski does not render this limitation obvious.

2. Malewski in View of 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.”

Petitioner contends that Malewski renders this claim limitation obvious for reasons described in Ground 2. Petition, 29-30. As explained in §VI.B.3 *supra*, Malewski does not render this limitation obvious.

In the alternative, Petitioner contends that STP2003 renders this limitation obvious by reiterating the arguments made in its discussion of Ground 1. Petition, 30 (citing Ex. 1008, 6). As explained in §VI.A.4, STP2003 does not render obvious the claimed reattachment prevention mechanism. Malewski and STP2003 thus do not suggest the claimed reattachment prevention mechanism. 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 id.* Thus, the collective teachings of the references do not render obvious this limitation.

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 device with replaceable batteries "which is simpler to install and 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 useful 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. *See generally id.*

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 the teachings of these references. *See* Petition, 31-32. However, as explained below, each of Petitioner's presented motivations to combine are flawed.

First, Petitioner argues that there is a motivation to combine Byrne '354 and Byrne '311 since both references are "directed towards life safety alarm devices." Petition, 31. However, simply because both references relate to life safety alarm devices does not demonstrate a motivation to combine their teachings. *See* §VI.C.2.

Again, Petitioner fails to account for or acknowledge that both references here are directed to solving different problems, which would have counseled against combining their respective teachings. *See id.* Byrne '354 discloses two-part smoke alarms with replaceable or rechargeable batteries. 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), further 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 Byrne '354 and Byrne '311 allegedly both involve devices that are activated by the user. Petition, 31. However, Petitioner fails to explain why both devices being user-activated provides a motivation to combine—particularly given Petitioner's admission that both devices are activated differently. Petition, 31 (stating that 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 “at least because the two references are patented by the same inventor and assigned to the same assignee, meaning they likely resulted from the same work” in light of *Black v. CE Soir Lingerie Co.* Petition, 31-32 (citing to 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* is misplaced.

CE Soir found “strong motivation to combine” where two of the prior art patents were ***not only*** patented by the same inventor ***but also*** “the ***majority of the [] patent's claims [could] be found***” in the two patents and one of the references listed the other reference on its face as a prior art patent. 2008 WL 3852722, at *14. On

these facts, 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*, common inventorship and ownership does not create a motivation to combine here because the underlying subject matter of Byrne ’354 and Byrne ’311 is different (as described above), one does not reference the other, and the two references implicate 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, 32. 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, ¶¶231-233). Paragraph 233 additionally includes an embedded citation to §VII of the expert declaration, which describes the alleged state of the art. Ex. 1002, ¶¶231-233. Beyond this internally cross-referenced testimony (and even assuming *arguendo* that such incorporation by reference of 56 paragraphs of testimony is permissible), Petitioner and its expert do not offer any rationale for how or why the state of the art contributes to a POSITA’s motivation to combine. *See* §VII *infra*. And if the cited testimony is intended to suggest that certain features known in the art, it was still incumbent on Petitioner to explain how those features would be combined.

Fifth, Petitioner argues that STP2003 provides “explicit motivation to combine” implement Byrne ’311’s alleged reattachment prevention mechanism in Byrne ’354 given that STP2003 contemplates “changes to the governing standards” to “incorporate reattachment prevention mechanisms into existing smoke alarms.” Petition, 32. As described in §VI.A.4 and §VI.C.2, STP2003 does not disclose or suggest any requirement or suggestion to implement reattachment prevention mechanisms in smoke detectors. Thus, Petitioner’s allegation that STP2003 provides the requisite motivation is also flawed.

Sixth, Petitioner contends 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.” Petition, 32. To substantiate this conclusory assertion, Petitioner cites ¶¶234-250, 35-40, and 63-85 of Dr. Pratt’s expert declaration. *Id.* Paragraphs 234-250 refer to Dr. Pratt’s testimony on how the claim limitations are allegedly satisfied by the combination—and fail to address the alleged motivation presented by Petitioner. Ex. 1002, ¶¶234-250. 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.*, ¶¶35-40, 63-85. Again, however, Petitioner has failed to provide any explanation of how this cited testimony supports Petitioner’s motivation to combine argument. *See* §VII *infra*.

For these reasons, Petitioner has failed to demonstrate motivation to combine Byrne '354 and Byrne '311. Further, even if 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 “A Reattachment Prevention Mechanism to Prevent Reattachment of the First and Second Portions Once the Second Portion is Permanently Deactivated”

The teachings of Byrne '354 and Byrne '311, alone or in combination, do not render obvious this limitation, as explained below.

First, as part of this limitation's mapping, Petitioner identifies Byrne '311's one-way OFF switch that exposes a wire to be cut. Petition, 36. Petitioner offered the same analysis and mapping for the previous “permanent deactivation mechanism” limitation. *Id.*, 35-36. Given that the claim recites separate mechanisms for permanent deactivation and reattachment prevention, Petitioner's mapping to the same component(s) for these two different claimed mechanisms fails.

Even assuming *arguendo* that Petitioner can rely on the same component(s) to disclose both the permanent deactivation and the reattachment prevention mechanisms, there is no mechanism in Byrne '311 that prevents reattachment. Petitioner provides no explanation as to how Byrne '311's wire-cutting—which is designed “to prevent battery-low indications being emitted after it has been discarded”—prevents reattachment of the first and second portions. Additionally, if Petitioner contends that the claimed reattachment prevention mechanism is the sharp

object that cuts the wire, this argument fails because the sharp object is not part of the device, as required by the claims. Nor does Byrne '311 disclose or suggest that this object (or its use in cutting of the wire) prevents reattachment of the alleged first and second portions.

Second, Petitioner asserts that the attachment of the alarm body of Byrne '354 to the base “causes the terminal spades 39 to enter the mouths 32 and 35 of the alarm body terminals to create an electrical connection.” Petition, 36 (citing Ex. 1009, ¶[0031]). This disclosure also does not contemplate 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 results in “the physical removal of the connection between the power source and the control circuitry of the alarm.” *Id.*, 36. This assertion relates to what “*could*” be achieved in the combination, but fails to explain 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 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 the connection between the power source

and the 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 cutting the wire—as Petitioner proposes—would prevent a user from keeping the alarm operational (e.g., upon replacing batteries).

Even assuming *arguendo* that “disabling the connection between the power source and the control circuit of the alarm [i.e., cutting the wire]” could be applied to Byrne '354, that still does not teach or suggest the claimed reattachment prevention mechanism preventing an alarm body (alleged second portion) from being reattached to the bracket (alleged first portion) once the alarm has been permanently deactivated.

Fourth, Petitioner cites paragraphs 244-250 of Dr. Pratt’s expert declaration. Petition, 36-37 (citing Ex. 1002, ¶¶244-250). Paragraphs 247-249 cite various standards documents (including the 1999 NFPA 72, the 2000 International Fire Code, and UL217). Ex. 1002, ¶¶247-249. Not only does this constitute improper incorporation by reference (*see* §VII *infra*), these references also do not describe any mechanisms that prevent reattachment, nor do they teach or suggest “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.*, ¶249.

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.* Indeed, this testimony fails to identify the alleged reattachment prevention mechanism (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 the Challenged Claims

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, 38-39), each presented motivation to combine is flawed.

First, Petitioner argues that because both 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.*, 38 (citing *Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373 (Fed. Cir. 2023)). *Intel*, however, does not support this assertion.

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 (citing to *Intel Corp. v. Qualcomm Inc.*, 21 F.4th 784, 797–99 (Fed. Cir. 2021) (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 detectors or the alleged common issues. *See* Petition, 38.

Petitioner further ignores that both references here are directed to solving different problems, which would not have counseled in favor of combining their respective teachings. Byrne ’311 discloses single-use one-piece smoke alarms with sealed batteries where “there is no need to replace the battery.” Ex. 1010, 1:2-15. DeLuca ’487, in contrast, contemplates a device with removable batteries, and its disclosed battery lockout mechanism is designed to be unlocked once the correct number of batteries is inserted. *See* Ex. 1006, 2:19-41. Given these differences, a POSITA would not have been motivated to combine the references’ teachings.

Second, Petitioner argues that both references are similar in that they both “express concern for situations where users think an alarm is operational, when it is not.” Petition, 38 (citing Ex. 1010, 1:15-18, 5:15-19 (relating to Byrne ’311’s wire-cutting operation to disconnect battery); Ex. 1006, 4:35-61, 5:11-30 (relating to

lockout actuator that is unlocked upon correct number of batteries being installed in the alarm). Based on this assertion, Petitioner contends that “[a] POSITA would have looked to incorporate the ... deactivation method taught in Byrne ’311, with the known functionality of installation prevention as taught in DeLuca ’487.” Petition, 39.

However, this characterization fails to appreciate that the references disclose very different devices—with DeLuca ’487 relating to two-piece alarms with replaceable batteries with a base that is intended to be reused, and Byrne ’311 disclosing a single-piece alarm with sealed batteries that are not to be replaced and where the alarm is intended to be disposed upon reaching the end of its life. *Id.*, 38-39. Petitioner fails to explain why a POSITA would incorporate the lockout actuator of DeLuca ’487—which is intended to be unlocked once the correct number of batteries is inserted into the battery—into Byrne ’311’s device, which 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 functionality of installation prevention as taught in DeLuca ’487.” Petition, 39.

Third, Petitioner’s reliance on expert testimony does not remedy the above deficiencies because the expert testimony merely mimics the Petition and is therefore similarly deficient. Ex. 1002, ¶¶254-255. Additionally, the cited portions of expert testimony include an embedded citation to over 50 paragraphs relating to the alleged state of the art. *Id.* (citing *id.*, ¶¶63-118). Petitioner fails to explain how this testimony bears on the motivation to combine Byrne ’311 and DeLuca ’487.

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

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.” Petition, 39. Petitioner further 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.* (citing (¶¶254-255, 35-40, and 63-85). However, beyond these conclusory statements, Petitioner fails to account for the numerous deficiencies and differences described above that suggests that the references’ teachings cannot simply be “rearranged” to provide predictable results with any reasonable expectation of success.

For these reasons, Petitioner has failed to demonstrate motivation to combine Byrne '311 and DeLuca '487. Further, even if these references could be combined, the proposed combination does not render obvious the Challenged Claims.

2. *Byrne '311 in View of DeLuca '487 Does Not Render Obvious
“A Reattachment Prevention Mechanism to Prevent Reattachment of
the First and Second Portions Once the Second Portion is Permanently
Deactivated”*

Petitioner contends that DeLuca '487's lockout actuator, as implemented in the Byrne '311 meets this claim limitation. *Id.*, 42-43. As explained in §VI.F.1 *supra*, there would be no reason to implement DeLuca 487's lockout actuator—which is actuated by batteries being inserted into the battery compartment of the device—in Byrne '311's device, which does not use replaceable batteries. Even if the lockout actuator could be implemented in Byrne '311's device, as explained in §VI.C.4 *supra*, the lockout actuator allows attachment of its base to the mounting bracket and thus, does not disclose the claimed reattachment prevention mechanism that prevents reattachment of the alleged first and second portions.

**VII. THE PETITION'S PERVASIVE AND EXPANSIVE
INCORPORATION BY REFERENCE OF EXPERT TESTIMONY
WARRANTS DENIAL OF THE PETITION OR AT A MINIMUM, 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 the following two categories:

- (1) The Petition concludes the analysis for each limitation for each asserted ground by citing paragraphs 35-40 and 63-85 of Dr. Pratt's testimony (spanning 13 pages). *See* Petition, 12-44. Throughout the Petition, these paragraphs are cited 55 times. *See id.* Paragraphs 35-40 of Dr. Pratt's testimony provide an overview of the '445 Patent, and paragraphs 63-85 discuss the alleged state of the art. Ex. 1002, ¶¶35-40, 63-85. Similarly, in some instances, Petitioner's expert references the entirety of his Section VII analysis in the declaration. *See, e.g.,* Ex. 1002, ¶¶172. Petitioner does not explain the relevance of the 56 cited paragraphs to the obviousness analysis for each of the claim limitations. Further, to the extent that these paragraphs purport to address what was well-known in the art, Petitioner bears the burden of explaining why or how any allegedly well-known feature or functionality would be implemented in the context of the disclosures used in each ground. *See Samsung Electronics Co. Ltd. Et al. v. Imperium (IP) Holdings*, IPR2015-01233, Paper 14 at 17-18 (PTAB Dec. 1, 2015) ("The obviousness analysis requires more than an *ipse dixit* assertion that everything in a reference was also well known in the art. For any limitation Petition asserts is well-known, there needs to be

evidence of that knowledge and evidence of a rationale for modifying the teachings of the reference in accordance with that knowledge. Failure to present such evidence constitutes a breach of 37 C.F.R. §§ 42.104(b)(4) and 42.104(b)(5).”).

- (2) For grounds relating to Malewski (Grounds 2-4), and particularly for the “reattachment prevention mechanism” limitation, the Petition cites 44 paragraphs of Dr. Pratt’s testimony. Petition, 19-20, 26, 29 (citing Ex. 1002, ¶¶281-324 (or a subset thereof)). In these paragraphs, Dr. Pratt 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, ¶280.

This incorporated testimony is notable in two respects. *First*, the Petition fails to develop or describe any of these modifications beyond rote citation to these 44 paragraphs. In other words, the cited testimony presents designs and details about proposed modifications to devices without offering any such detail in the Petition. *Second*, the cited testimony manufactures new unpatentability grounds in view of Watson—which is not even part of the Grounds—and articulates “*four* examples of modifications” in view of Watson that allegedly meet the claims. See Ex. 1002, ¶¶294-316.

The Petition repeatedly cites 106 paragraphs (§§35-40, 63-118, 281-324) (spanning about 43 pages and more than 10,000 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 also 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 for such violation 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 Petitioner’s citation to expert testimony where Petitioner cited nearly 40 pages of declaration testimony with no explanation) ; *Hopkins Mfg. Corp. v. Cequent Performance Prods., Inc.*, 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 (B.V.I. Corp.)*, IPR2015-00488, Paper 14 at 12-13 (PTAB July 24, 2015) (refusing to consider arguments incorporated by reference from the expert declaration where the Petition included numerous conclusory statements as to obviousness or being within the art with no explanation other than the citations, because such incorporation by reference “obscure[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, and its arguments often are incomprehensible without reviewing broad portions of the [Expert] Declaration” that exceeds the relevant discussion in the Petition by multitudes, and that the Petitioner’s use of the Declaration to “vastly expand its 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 27 paragraphs of expert testimony without a “detailed explanation of the significance of the paragraphs” in the Petition); *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 or alternatively, the testimony incorporated by reference into the Petition should be given no weight. Specifically, as in the cases cited above, the Petition

advances a significant number of arguments solely by incorporation by reference, and without developing those arguments in the Petition. For example, the Petition cites large portions of expert testimony to advance arguments and theories not advanced or discussed in the Petition, e.g., (1) new unpatentability grounds based solely on Watson in Grounds 2-4 (Ex. 1002, ¶¶156-159, 209, 222; Petition, 18-19, 25, 29), (2) new obviousness theories and modifications of devices in view of Malewski, Watson, and DeLuca (Petition, 19-20, 26, 29; Ex. 1002, ¶¶281-324), (3) alternative arguments for multiple grounds and multiple limitations (*see, e.g.*, Petition, 35-36 (citing Ex. 1002, ¶¶241-243 (arguing with no further explanation that “it would be obvious to a POSA to replace the wire-cutting feature of Byrne ’311 to a deactivation mechanism like an electrical switch so as to avoid requiring the use of a sharp object while deactivating a ceiling-mounted smoke detector”))), and (4) concluding obviousness by pointing to 56 paragraphs of the expert’s recitation of the alleged state of the art, without explaining how any teachings bear on the provided obviousness analysis (Petition, 12-44; Ex. 1002, ¶¶35-40, 63-85; Petition, 20 (citing Ex. 1002, ¶¶163-180, which in turn cites Section VII of the declaration, spanning ¶¶63-118))).

Moreover, the Petition includes 9,020 words, and Petitioner’s embedded citations to Dr. Pratt’s above-described and incorporated testimony make up an additional 10,250 words (when accounting for Dr. Pratt’s testimony at paragraphs

35-40, 63-118, and 281-324). This effectively brings the total word count to about 19,250 words, which far exceeds the word count limits for a Petition.

Such incorporation by reference circumvents the established word count for a Petition and is unduly prejudicial to Patent Owner who is forced to mine the numerous additional arguments presented via the incorporated testimony and address the same within the word count confines for preliminary responses.

For these reasons, and for additional reasons as described with reference to §VI *supra*, the Petition's pervasive incorporation by reference of large portions of Dr. Pratt's testimony—without any actual development in the Petition of the same—warrants denial of the Petition or in the alternative, 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 and 3 because (1) the Petition advances the same prior art references that were previously presented to and considered by the Examiner during prosecution and (2) Petitioner has not demonstrated that the Office erred in a manner material to the patentability of the Challenged Claims. *See Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 7-8 (PTAB Feb. 13, 2020) (precedential).

A. The References Relied Upon in Grounds 2 and 3 Were Previously Presented to the Patent Office.

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

Grounds 2 and 3 rely upon Malewski, and the analysis presented therein also refers to features of Watson, which is incorporated by reference into Malewski. *See, e.g.,* Petition, 18-19. Additionally, as noted in §VI above, Dr. Pratt's testimony presents multiple unpatentability arguments based on Watson alone. *See, e.g.,* Ex. 1002, ¶¶156-159, 294-316.

Malewski and Watson were both presented to the Office during the prosecution of the '445 Patent. Malewski and Watson were cited in an IDS on September 14, 2006, and the IDS was considered the Examiner on September 10, 2007. Ex. 1024, 33, 72. *See Peloton Interactive, Inc. v. iFit, Inc.*, IPR2022-00029, Paper 13 at 13 (PTAB Apr. 22, 2022) (references cited on an IDS that are expressly considered by the examiner constitute as previously presented art under the *Advanced Bionics* framework); *Advanced Bionics*, Paper 6 at 7-8.

Watson was also substantively applied in obviousness rejections entered during the prosecution of the '445 Patent and the related '158 Patent. Ex. 1024, 69-70 and 95-98; *compare* Ex. 1004, 128 (citing Ex. 1005, 4:40-51), *with* Petition, 18-19. Indeed, in one of the applied rejections, the Examiner asserted that certain disclosures in Watson teach the claimed deactivation mechanism, and these same

portions of Watson are now relied upon by Petitioner for the claimed “permanent deactivation mechanism” limitation. *See id.*

2. *DeLuca ’487 Was Previously Presented to the Office*

During the prosecution of the ’445 Patent, DeLuca ’487 was presented to the Office. DeLuca ’487 was one of the references cited in the September 14, 2006 IDS, which was subsequently considered by the examiner. Ex. 1024, 33, 72.

Also, this case is unlike those where IDS submissions make up hundreds of references. Instead, here, DeLuca ’487, Watson, and Malewski were one of only 25 references cited and considered in an IDS and the examiner’s consideration of these references is evidenced by his reliance on one of the IDS-identified references (Meier) in the subsequently entered office action. *Id.* at 67-70, 72 (after references considered, examiner entered the office action on September 20, 2007).

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

Petitioner has failed to meet its burden of demonstrating material error by the Office. *See Advanced Bionics LLC*, Paper 6 at 8.

Petitioner argues that the Petition should not be discretionarily denied under Section 325(d) because the ’445 Patent’s 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 of Drs. Pratt or Reinholtz.” *Id.* None of these arguments demonstrate material error.

As a starting point, 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 other references in other grounds does not speak to or address any material error during prosecution in consideration of DeLuca '487 and Malewski.

Moreover, Petitioner's allegations that Malewski or DeLuca '487 were not “used to reject the claims” does not demonstrate material error—and Petitioner offers no precedent for this assertion. This assertion also omits that Watson—which Petitioner and its expert leverage in their arguments due to Watson's alleged incorporation by reference into Malewski—was applied in a rejection during prosecution. And, as explained above, the Petition and the corresponding expert declaration rely upon the same teachings that were relied upon by the Examiner with respect to the Watson reference. Ex. 1004, 128 (citing Ex. 1005, 4:40-51); Petition, 18-19 (citing same disclosure in Watson). This refutes—rather than confirms—that there was material error during prosecution.

Petitioner next alleges that Malewski or DeLuca '487 were not “considered in combination with the other references or the expert testimony in this or the testimony or Drs. Pratt or Reinholtz.” Petition, 6. Malewski and DeLuca '487 are not applied in combination with any “other references” in the context of Grounds 2 and 3—which are the focus of Patent Owner’s 325(d) arguments.

And, without more specificity, Petitioner cannot demonstrate material error based solely on its conclusory allegation that Examiner did not consider combinations of references or the cited expert testimony. *Ivantis, Inc. et al. v. Sight Sciences, Inc.*, IPR2022-01533, Paper 14 at 18-20 (PTAB Mar. 27, 2023) (finding that Petitioner failed to demonstrate material error in view of Petitioner’s bare assertion that 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 Petition’s relied upon reference was disclosed in an IDS during prosecution but did not adequately explain how the Examiner erred materially).

Relatedly, Petitioner fails to point out any error by the Examiner in his consideration of Malewski, Watson, and DeLuca '487. Petitioner identifies no

argument that the Examiner overlooked or misunderstood teachings of these references. Indeed, Petitioner's 325(d) analysis does not even discuss or address the prosecution history of the '445 Patent or the reasons for allowance in the context of arguing any material error during prosecution.

Finally, Petitioner contends that an assignor estoppel in the co-pending litigation would make IPR "the only avenue for Petitioner's to challenge the ... '445 Patent." Petition, 6-7. Even if true, Petitioner cites no authority for the proposition that the assignor estoppel defense precludes 325(d) denial.

In summary, discretionary denial under 325(d) is warranted here with respect to Grounds 2 and 3 given that the same art from Grounds 2 and 3 was previously presented to the Patent Office and Petitioner has failed to show any material error. *See Google LLC v. Valtrus Innovations Ltd.*, IPR2022-01197, Paper 18 at 19-24, 28-29 (PTAB June 13, 2023) (exercising discretion to deny a subset of petitioned grounds under §325(d); finding that Petitioner failed to demonstrate material error "with specificity").

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 13,881, which is less than the 14,000 allowed under C.F.R. §42.24(b)(1).

Respectfully submitted,

Date: 09/15/2023

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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 the Petitioners by serving the correspondence email address of record as follows:

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