

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

VALVE CORPORATION,
Petitioner,

v.

IRONBURG INVENTIONS LTD.,
Patent Owner.

IPR2017-00858
Patent 9,289,688 B2

Before PHILLIP J. KAUFFMAN, MEREDITH C. PETRAVICK, and
MITCHELL G. WEATHERLY, *Administrative Patent Judges*.

WEATHERLY, *Administrative Patent Judge*.

JUDGMENT

Final Written Decision on Remand
Determining No Challenged Claims Unpatentable
35 U.S.C. §§ 144, 318

I. INTRODUCTION

A. Trial Background

Valve Corporation (“Valve”) filed a petition (Paper 1, “Pet.”) to institute an *inter partes* review of claims 1–3, 9, 10, 18–22, and 26–30 (the “challenged claims”) of U.S. Patent No. 9,289,688 B2 (Ex. 1001, “the

'688 patent"). 35 U.S.C. § 311. Petitioner supported the Petition with a Declaration from David Rempel, M.D. (Ex. 1009). Ironburg Inventions Ltd. ("Ironburg") timely filed a Preliminary Response. Paper 6 ("Prelim. Resp."). On September 1, 2017, based on the record before us at the time, we instituted an *inter partes* review of claims 1–3, 9, 10, 20, 22, and 26–30. Paper 7 ("Institution Decision" or "Inst. Dec."). On May 7, 2018, pursuant to *SAS Institute, Inc. v. Iancu*, 138 S. Ct. 1348 (2018), we modified our Institution Decision and reintroduced into this proceeding all challenges to the patentability of claims 1–3, 9, 10, 18–22, and 26–30 alleged in the Petition. Paper 28 ("SAS Order"). Accordingly, we conducted a trial on all challenges to the claims as summarized below:

Claims Challenged	35 U.S.C. §	Reference(s)/Basis
1–3, 9, 10, 20, 22, 26–30	102(a)(2)	Uy ¹
1, 26, 30	103	Bellinghausen, ² Burns ³
1, 2, 18, 19, 21, 26, 28–30	103	Burns, LaCelle ⁴
1, 2, 9, 10, 21, 30	103	Burns, Knight ⁵
1, 2, 9, 10, 20, 26, 28–30	102(a)(1)	Butler ⁶

¹ U.S. Patent App. Pub. 2015/0238855 A1 (Ex. 1002, "Uy").

² U.S. Patent No. D711,881 S (Ex. 1003, "Bellinghausen").

³ Burns, David, Review: Scuf Xbox 360 Controller, <https://www.xboxer360/features/reviewscuf-xbox-360-controller/> (Ex. 1004, "Burns").

⁴ U.S. Patent No. D419,985 (Ex. 1005, "LaCelle").

⁵ U.S. Patent No. D502,468 S (Ex. 1007, "Knight").

⁶ Butler, Harry, Razer Sabertooth Review, <http://www.bit-tech.net/hardware/2013/03/11/razer-sabertooth-review/1> (Ex. 1008, "Butler").

After we instituted this review, Ironburg filed a Patent Owner Response in opposition to the Petition (Paper 14, “PO Resp.”) that was supported by a Declaration from Glen Stevick, Ph.D. (Ex. 2001). Valve filed a Reply in support of the Petition. (Paper 19, “Reply”). With our authorization, Ironburg filed a Supplemental Patent Owner Response (Paper 39, “Supp. PO Resp.”) to address the challenges to claims reintroduced pursuant to the *SAS* Order. Valve filed a Supplemental Reply in support of the Petition and responding to the Supplemental Patent Owner Response (Paper 43, “Supp. Reply”), which was supported by another Declaration of Dr. Rempel (Ex. 1019). With our authorization, Ironburg filed a Surreply addressing arguments set forth in Valve’s Supplemental Reply. (Paper 50, “Ironburg Surreply”). Also with our authorization, Valve filed a brief responding to the Ironburg Surreply. (Paper 52, the “Valve Surreply”). Each party also submitted a brief addressing the relevance of deposition testimony from Simon Burgess (Exhibit 1046). Paper 59 (the “Burgess Brief”); Paper 62 (the “Burgess Resp.”). Ironburg did not move to amend any claim of the ’688 patent.

Ironburg filed three motions to exclude evidence (Papers 25, 48, 63), each of which was opposed by Valve (Papers 27, 51, 64) and supported by Ironburg with reply briefs (Papers 29, 53, 65).

We heard oral argument on September 7, 2018, a transcript of which has been entered in the record (Paper 66, “Tr.”).

We entered a corrected Final Written Decision (Paper 68, “Decision” or “Dec.”) in which we concluded that Valve had demonstrated by a preponderance of evidence that Uy anticipated claims 1, 2, 9, 10, 20, 22, 27, 28, and 30 of the ’688 patent, but failed to do so for claims 3, 26, and 29.

Dec. 21–29. We also concluded that Valve had failed to demonstrate by a preponderance of evidence that Butler anticipated any claim of the ’688 patent. *Id.* at 29–32. Lastly, we also concluded that Valve had failed to prove by a preponderance of evidence that Burns was a prior art printed publication. *Id.* at 32–39. On this basis, we concluded that Valve’s collective challenges to the patentability of claims 1, 2, 9, 10, 18, 19, 21, 26, and 28–30 as being obvious over the combination of Burns in view of one of Bellinghausen, LaCelle, or Knight failed. *Id.*

B. The Appeal to the Federal Circuit

On August 17, 2021, the Federal Circuit affirmed-in-part, vacated-in-part, and remanded-in-part our prior Decision. *Valve Corp. v. Ironburg Inventions Ltd.*, 8 F.4th 1364, 1381 (Fed. Cir. 2021). Paper 76.⁷ The Federal Circuit affirmed our determination that Uy anticipated claims 1, 2, 9, 10, 20, 22, 27, 28, and 30. *Valve*, 8 F.4th at 1381. The Federal Circuit also affirmed our determination that Uy did not anticipate claim 29. *Id.* at 1378–79. Valve did not appeal our Decision to the extent that we concluded that Uy did not anticipate claims 3 and 26 and that Butler did not anticipate claims 1, 2, 9, 10, 20, 26, and 28–30. *Id.* at 1368–69, n.1. The Federal Circuit reversed our determination that Burns was not prior art. *Id.* at 1381. The Federal Circuit also vacated our determination that claims 18, 19, 21, 26, and 29 had not been proven unpatentable as obvious in view of Burns in combination with various other prior art references. *Id.* Accordingly, the Federal Circuit remanded the case to us to consider Valve’s challenges to the patentability of claims 18, 19, 21, 26, and 29 of the

⁷ The Federal Circuit issued its mandate on October 8, 2021. Paper 75.

'688 patent as obvious based on the combinations of prior art listed in the table below.

Claim(s) ⁸	35 U.S.C. §	References
18, 19, 21, 26, 29	103	Burns, LaCelle
21	103	Burns, Knight
26	103	Bellinghausen, Burns

Id.

C. Remand Background

On remand, we authorized the parties to concurrently file an opening brief and then concurrently file responsive reply briefs. Paper 77, 4. The parties agreed, and we concurred, that no new evidence would be submitted during the remand proceeding. *Id.* Accordingly, we decide the issues on remand based on the record that was submitted during the original trial.

Valve filed an opening brief (Paper 79, “Valve Remand Br.”). Ironburg filed an opening brief (Paper 78, “Ironburg Remand Br.”). Valve filed a Reply responding to Ironburg’s opening brief (Paper 82, “Valve Remand Reply”). Ironburg filed a Reply responding to Valve’s opening brief (Paper 84, “Ironburg Remand Reply”).

During the original trial, the panel dismissed without prejudice as moot Ironburg’s motions to exclude evidence (Papers 48 and 63).⁹ Dec. 45.

⁸ Because all the claims to be addressed on remand depend directly from claim 1, we instructed the parties to address on remand the manner in which the combinations of Burns with the references above teach or suggest the limitations recited in claim 1. Paper 77, 3, n.3.

⁹ In Paper 48, Ironburg seeks to exclude evidence submitted with Valve’s Supplemental Reply included the Dr. Rempel’s Reply Declaration (Exhibit 1019). Paper 48. As explained in Part II.D below, we find that Valve, by

In a joint e-mail on November 5, 2021, the parties agreed that both of these motions were pertinent, at least in part, to the issues remaining on remand. Exhibit 3001. We authorized Ironburg to renew these motions by indicating a desire to do so in its opening brief. No additional briefing by either party was authorized on these motions. Ironburg renewed both motions to exclude mentioned above. Ironburg Remand Br. 14.

This Final Written Decision is issued pursuant to 35 U.S.C. §§ 144, 318(a) and 37 C.F.R. § 42.73. For the reasons expressed below, we conclude that Valve has failed to demonstrate by a preponderance of evidence that any of claims 18, 19, 21, 26, and 29 are unpatentable as obvious.

D. Related Proceedings

The parties have identified as a related proceeding the co-pending district court litigation of *Ironburg Inventions Ltd. v. Valve Corporation*, Case No. 1:15-cv-04219-MHC (N.D. Ga.). Paper 3, 1; Pet. 1. Valve also identifies *Ironburg Inventions Ltd. v. Collective Minds Gaming Co. Ltd.*, Case No. 1:16-cv-04110-MHC (N.D. Ga.). Pet. 2. Valve also identifies *inter partes* review proceedings IPR2016-00948, IPR2016-00949, IPR2017-00136, IPR2017-00137 as related proceedings because they collectively

submitting Exhibit 1019, has presented evidence outside the scope of what is permitted under Rule 42.23(b). We also find that, even if the evidence were considered, it would be insufficiently persuasive to support a successful challenge. In Paper 63, Ironburg seeks to exclude Exhibit 1048 as unauthenticated (under FRE 901), hearsay (under FRE 801–803), and irrelevant (under FRE 401, 402). Paper 63. Exhibit 1048 is a different copy of the article submitted as Burns (Exhibit 1004), which the Federal Circuit has found to be a prior art printed publication; thus mooting Paper 63.

address related U.S. Patent No. 9,089,770 B2.¹⁰ *Id.* We issued final written decisions in IPR2016-00948 and IPR2016-00949. We terminated IPR2017-00136 and IPR2017-00137 without issuing final written decisions in response to the joint motions of the parties after they settled their disputes.

E. The '688 Patent

The '688 patent relates to “controllers for controlling the play of computerized games; more particularly, . . . to an actuator system of a game controller for a gaming console.” Ex. 1001, 1:13–17. The Specification describes conventional controllers as having controls such as buttons, analog control sticks, bumpers, and triggers mounted to the top and front surfaces of the controller that are intended to be actuated by the user’s thumbs or index fingers. *Id.* at 1:27–54. A user may grip these conventional controllers by wrapping the middle, ring, and little fingers around two spaced-apart grip portions. *Id.* at 1:55–58.

The Specification describes one embodiment in which controller 10 includes allegedly novel paddle levers 11A–D that a user may actuate with the middle, ring, and/or little fingers on the “rear” or underside of controller body 14 as shown in Figure 5, which we reproduce below.

¹⁰ Valve mistakenly refers to IPR2016-00136 and IPR2016-00137 rather than IPR2017-00136 and IPR2017-00137. Pet. 1–2.

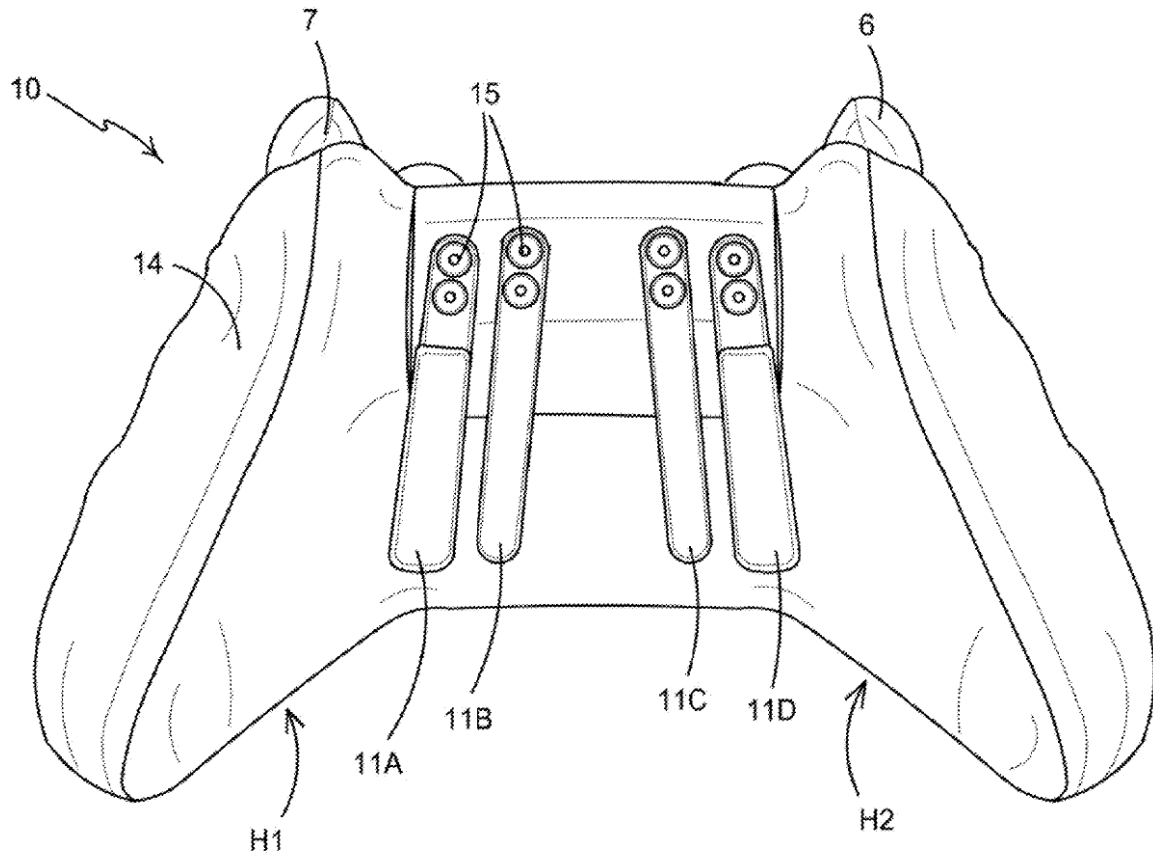


FIGURE 5

Figure 5 is “a plan view from below of the rear panel of the games controller of FIG. 1.” *Id.* at 4:28–29.

In one embodiment, the lower surface of outermost paddle levers 11A, 11D are oriented at an angle β relative to surface S_B of controller 10, as shown in Figure 7, which we reproduce below. *Id.* at 8:12–16.

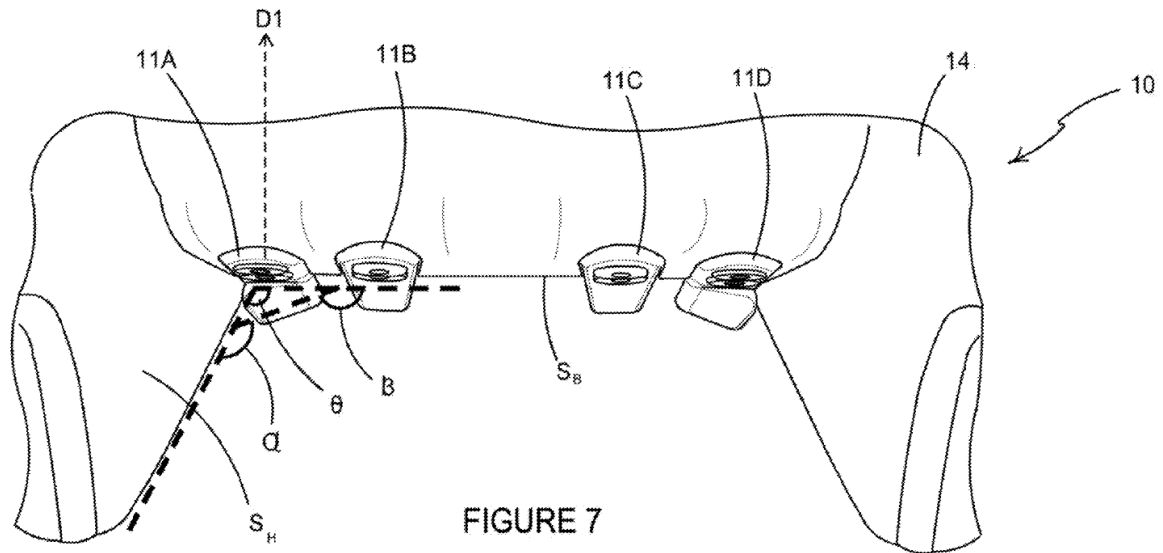


FIGURE 7

Figure 7 is an enlarged front view of the games controller of Figure 1 showing the relationship among paddles 11A–D, the rear of controller body 14, and handles H1, H2.

The configuration and arrangement of paddle levers 11A, 11D as compared to adjacent paddle levers 11B, 11C enables the user (1) to “readily find the adjacent paddle 11B, 11C” without needing to “disengage or lift off the outermost paddle 11A, 11D” and (2) to “maintain touching contact therewith whilst actuating one of the inner paddles 11B, 11C.” *Id.* at 7:56–60.

Independent claim 1, which is the only independent claim at issue on remand, recites:

1. A games controller comprising:
a case; and
a plurality of controls located on a front end and a top of the case;
the case being shaped to be held in both hands of a user such that the user’s thumbs are positioned to operate controls located on the top of the case and the user’s index fingers are positioned to operate controls located on the front end of the case; wherein

the games controller further comprises at least one first additional control located on a back of the case in a position operable by a middle, ring or little finger of the user,

the first additional control comprising a first elongate member displaceable by the user to activate a control function, wherein

the first elongate member comprises a first surface disposed proximate an outer surface of the case and

the first elongate member comprises a second surface opposing the first surface, the second surface being configured and arranged to be non-parallel with a portion of the outer surface of the back of the case to which the first elongate member is mounted.

Id. at 9:28–48 (with line breaks added for clarity).

II. ANALYSIS

A. Claim Interpretation

“A claim in an unexpired patent that will not expire before a final written decision is issued shall be given its broadest reasonable construction in light of the specification of the patent in which it appears.” 37 C.F.R. § 42.100(b) (2016)¹¹; *see also Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016) (affirming that USPTO has statutory authority to construe claims according to Rule 42.100(b)). When applying that standard, we interpret the claim language as it would be understood by one of ordinary

¹¹ Our recently changed version of this Rule, which requires that we interpret claims in the same manner used in a civil action under 35 U.S.C. § 282(b), does not apply here because the Petition was filed before the effective date of the new Rule, November 13, 2018. *See Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board*, 83 Fed. Reg. 51,340, 51,344 (Oct. 11, 2018).

skill in the art in light of the specification. *In re Suitco Surface, Inc.*, 603 F.3d 1255, 1260 (Fed. Cir. 2010). Thus, we give claim terms their ordinary and customary meaning as they would be understood by an ordinarily skilled artisan. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007) (“The ordinary and customary meaning ‘is the meaning that the term would have to a person of ordinary skill in the art in question.’”) (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005)). Only terms that are in controversy need to be construed, and then only to the extent necessary to resolve the controversy. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017).

Although the meaning of various claim terms was argued during the trial, we need not expressly address the meaning of any particular claim language in reaching our conclusion that Valve has failed to establish that any claim remaining at issue is unpatentable.

B. Legal Standards

The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), reaffirmed the framework for determining obviousness as set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966). The *KSR* Court summarized the four factual inquiries set forth in *Graham* that we apply in determining whether a claim is unpatentable as obvious under 35 U.S.C. § 103(a) as follows: (1) determining the scope and content of the prior art, (2) ascertaining the differences between the prior art and the claims at issue, (3) resolving the level of ordinary skill in the pertinent art, and (4) when in evidence, considering objective evidence indicating obviousness or nonobviousness. *KSR*, 550 U.S. at 406 (citing *Graham*, 383 U.S. at 17–18).

Petitioner must explain how the proposed combinations of prior art would have rendered the challenged claims unpatentable. An obviousness analysis “need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR*, 550 U.S. at 418; *accord In re Translogic Tech., Inc.*, 504 F.3d 1249, 1259 (Fed. Cir. 2007). However, Petitioner cannot satisfy its burden of proving obviousness by employing “mere conclusory statements,” but “must instead articulate specific reasoning, based on evidence of record” to support an obviousness determination. *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380–81 (Fed. Cir. 2016). Petitioner also must articulate a reason why a person of ordinary skill in the art would have combined the prior art references. *NuVasive*, 842 F.3d at 1382.

At this stage, we determine whether a preponderance of the evidence of record shows that the challenged claims would have been rendered obvious in view of the asserted prior art. We analyze the asserted grounds of unpatentability in accordance with these principles.

C. Level of Ordinary Skill

We review the grounds of unpatentability in view of the understanding of a person of ordinary skill in the art at the time of the invention. *Graham*, 383 U.S. at 17. Valve contends that the ordinarily skilled artisan would have:

a bachelor’s degree in an industrial design or engineering field, and approximately two years of relevant experience, for example. Alternatively, the same or an equivalent level of skill in the art could be obtained by end users or hobbyists who have substantial experience modifying or creating customized game

controllers that include features to better suit their needs, even without any college education.

Pet. 10 (citing Ex. 1009 ¶ 11). Ironburg, without expressly defining the level of ordinary skill, contends that a college degree of the type identified by Valve is not required. *See* Supp. PO Resp. 4–6. Ironburg notes that the level of ordinary skill is “relatively low” and the technology involved “is simple and straightforward.” *Id.* at 4 (citing Ex. 2016 ¶ 21). Ironburg’s contentions regarding the level of ordinary skill are consistent with Valve’s position, *id.* at 6, which we apply in our analysis.

D. Claims 18, 19, 21, 26, and 29: Obviousness over Burns with One of Bellinghausen, LaCelle, or Knight

On remand, we address Valve’s arguments that certain claims among dependent claims 18, 19, 21, 26, and 29 are unpatentable as obvious over Burns in combination with one of Bellinghausen, LaCelle, or Knight. *See* Pet. 24–28 (addressing claims 1 and 26 in view of Burns and Bellinghausen), 32–40 (addressing claims 1, 18, 19, 21, 26, and 29 in view of Burns and LaCelle), 45–52, 54 (addressing claims 1 and 21 in view of Burns and Knight). Burns is an article reviewing a game controller that incorporates technology licensed from Ironburg. Prelim. Resp. 26 (citing Ex. 2003, 54). Bellinghausen, LaCelle, and Knight (collectively, the “Design References”) are design patents, and none of them verbally describes individual elements of its controller or the function of any portion of the controllers illustrated in their respective figures. *See generally* Ex. 1003; Ex. 1005; Ex. 1007. Each of claims 18, 19, 21, 26, and 29 depends directly from independent claim 1. Ex. 1001, 10:65–12:8. Thus, we consider Valve’s showing relating to claim 1 for each of the

combinations of Burns with one of the Design References as part of the challenge to dependent claims 18, 19, 21, 26, and 29.

In its Petition, Valve, relying exclusively on testimony by Dr. Rempel, contends that, because Burns and the Design References all “disclose hand-held game controllers,” an ordinarily skilled artisan would have improved functional aspects of Bellinghausen in view of Burns or Burns in view of functional features allegedly described in the Design References. For the combination of Burns and Bellinghausen, Valve argues that “flexibility and resilience of the bottom controls of Bellinghausen may be improved by being cantilevered as taught by the paddle levers of Burns, so as to have a top surface and an opposing undersurface that is proximate the outer surface of the case.” Pet. 24; *see also* Ex. 1009 ¶ 21 (parroting the Petition). On its face, this testimony fails to explain why an ordinarily skilled artisan would have sought to improve the flexibility and resilience of Bellinghausen’s bottom controls or what advantage would ensue from doing so. This testimony merely states that it “may be improved.” For the combinations of Burns with LaCelle and Burns with Knight, Valve argues that each of the design patents “advantageously suggests an alternative rear control geometry for Burns, e.g. to give the distal ends of the back paddles of Burns the curved (i.e. “non-parallel”) outer shape of the back buttons” allegedly shown in each design patent. Pet. 32 (Burns with LaCelle), 45 (Burns with Knight); Ex. 1009 ¶¶ 27, 32 (parroting Petition). Similarly, this testimony simply fails to explain why an ordinarily skilled artisan would have modified Burns’ paddles to have a curved shape or what advantage would ensue from doing so. Valve also contends that each proposed alteration in Bellinghausen or Burns “would have been expected to be readily practical and successful in

this simple and predictable art, and the results would not have been unexpected.” *Id.* (citing Ex. 1009 ¶¶ 21, 27, 32). Dr. Rempel cites no objective evidence to support this cited testimony, which largely parrots Valve’s brief. *Compare id., with* Ex. 1009 ¶¶ 21, 27, 32. Dr. Rempel’s testimony is entitled to less weight because it is not supported by underlying facts or data. *See* 37 CFR § 42.65(a).

In its Supplemental Response, Ironburg argues that, based solely upon the evidence adduced in the Petition, Valve fails to show how or why an ordinarily skilled artisan would have combined elements of Burns and LaCelle. Supp. PO Resp. 14–18. When analyzing essentially the same arguments in the Institution Decision, we agreed with Ironburg and did not institute review of the challenges based upon Burns for this reason. Inst. Dec. 15–18. We concluded that Valve had failed “to provide reasons for combining specific aspects of individual references to arrive at the claimed controller.” *Id.* at 17.

However, because of the Supreme Court’s decision in *SAS Institute, Inc. v. Iancu*, 138 S. Ct. 1348 (2018), we modified our Institution Decision and reinstated Valve’s challenges based on Burns and other references. *SAS* Order. We also allowed each party to submit two additional briefs addressing these challenges. Paper 46, 3–4; Paper 42, 3; *see also* Paper 34, 3 (authorizing parties to proceed on schedule formally adopted in Paper 42). The first brief in this series of four was Ironburg’s Supplement Patent Owner Response in which Ironburg renewed its argument that the Burns challenges were fatally flawed for at least the same reasons we expressed in our Institution Decision. Supp. PO Resp. 1, 14–18.

Perhaps sensing that its showing in the Petition was fatally deficient, Valve submitted new testimony from Dr. Rempel with its Supplemental Reply in which Dr. Rempel attempted to provide reasons why an ordinarily skilled artisan would have combined teachings of Burns with each one of the Design References. Supp. Reply 12–14 (citing Ex. 1019 ¶¶ 14, 39, 40). For the combination of Burns and Bellinghausen, Valve contends that an ordinarily skilled artisan “would have understood that cantilevering the bottom controls of Bellinghausen (as taught by the paddle levers of Burns) would have predictably and advantageously resulted in increased flexibility and resilience in the controls, because then the controls would be supported at only one end.” *Id.* at 13 (citing Ex. 1019 ¶¶ 14). For the combination of Burns and either LaCelle or Knight, Valve contends that an ordinarily skilled artisan “would have recognized the predictable advantage of the combination: a back paddle having a curved end (like that of LaCelle or Knight) could allow better coupling with the user’s finger than the flat paddles that are otherwise disclosed by Burns.” *Id.* at 14 (citing Ex. 1019 ¶¶ 39–40). Dr. Rempel cites no objective evidence to support his testimony, and the panel accords little probative value to the testimony for this reason. Ex. 1019 ¶¶ 14, 39, 40; 37 CFR § 42.65(a).

In response, Ironburg persuasively argues that the testimony from Dr. Rempel that we summarize above improperly exceeds the scope of a reply under Rule 42.23(b) and is thus not properly before us. Ironburg Surreply 1–9. We agree.

It is of the utmost importance that petitioners in the IPR proceedings adhere to the requirement that the initial petition identify “with particularity” the “evidence that supports the grounds for the challenge to each claim.” 35 U.S.C. § 312(a)(3). “All arguments for the relief requested in a motion must be made

in the motion. A reply may only respond to arguments raised in the corresponding opposition or patent owner response.” 37 C.F.R. § 42.23(b).

Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd., 821 F.3d 1359, 1369 (Fed. Cir. 2016). We find that: (1) Valve proffered new testimony to fill the gaps that we identified in the Institution Decision and (2) presenting such testimony in the reply constitutes untimely new argument and evidence that must have been presented in the Petition.

Moreover, even if we were to consider Dr. Rempel’s untimely testimony relating to the combinations of Burns with LaCelle or Knight, it falls short of providing a reasoned basis for modifying Burns. Dr. Rempel merely opines that incorporating the curved shapes of back controls from LaCelle or Knight into Burns would result in a back control that “*could* have better coupling with the user’s finger than the flat paddles that are otherwise disclosed by Burns.” Ex. 1019 ¶¶ 39–40 (emphasis added). In other words, modifying Burns in view of LaCelle or Knight might improve Burns.

Dr. Rempel testified that the modification “could” improve Burns, not that it “would” improve Burns. The possibility of improvement, which also allows that Burns would not be improved, fails to rise to the level of “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007).

Accordingly, we find such testimony to be insufficient to demonstrate that an ordinarily skilled artisan would have modified Burns in view of LaCelle or Knight.

After considering the parties’ briefing, we conclude that Valve’s arguments and supporting evidence for combining teachings of Burns with each one of the Design References, excluding the untimely evidence

submitted with Valve's Supplemental Reply, are unpersuasive. Neither the Petition nor the evidence cited in the Petition cogently explains what advantage would be provided by the alternative control geometries of Burns and each of the Design References. A petitioner cannot demonstrate obviousness "by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). "To facilitate review, this analysis should be made explicit." *KSR*, 550 U.S. at 418 (citing *Kahn*, 441 F.3d at 988). Here, we find that Valve proffers conclusions without sufficient reasoning or objective evidence to demonstrate a reasonable likelihood of establishing that an ordinarily skilled artisan would have found it obvious to combine the elements from the prior art to arrive at the claimed controllers.

Valve also contends that the proposed alterations to Bellinghausen in view of Burns or to Burns in view of a relevant one of the Design References "would have been expected to be readily practical and successful in this simple and predictable art, and the results would not have been unexpected." Pet. 24, 32, 45; *see also* Ex. 1009 ¶¶ 21, 27, 32 (parroting Petition). Valve's statements, like the similarity of references, might suggest that Burns could be combined in the manners proposed with each of the Design References, but they fail to provide reasons that specific aspects of individual references would have been combined to arrive at the claimed controller. In other words, Valve's contentions merely demonstrate the feasibility of the proposed combinations, not the motivations for the proposed combinations.

For all these reasons, we conclude that Valve has failed to prove by a preponderance of evidence that the combined teachings of Burns with one of Bellinghausen, LaCelle, or Knight render any of claims 18, 19, 21, 26, and 29 of the '688 patent unpatentable as obvious.

III. IRONBURG'S MOTIONS TO EXCLUDE

As authorized in our Scheduling Order on Remand (Paper 77), Ironburg renews a pair of motions to exclude evidence (Papers 48 and 63) that we previously dismissed without prejudice as moot in our first Decision. Dec. 45. To the extent that the motion presented in Paper 48 sets forth issues that overlap with our analysis of whether Dr. Rempel's testimony in Exhibit 1019 constitutes evidence in support of an improper argument that is outside the proper scope of a reply under Rule 42.23(b), we grant-in-part Ironburg's motion as it relates to Exhibit 1019 for the reasons discussed above. We dismiss-in-part without prejudice the remaining issues raised in the motion set forth in Paper 48 as moot because the resolution of those issues is not required to reach our decision expressed above. For the same reason, we dismiss the motion set forth in Paper 63 without prejudice as moot.

IV. CONCLUSION

In summary,

Claim(s)	35 U.S.C. §	Reference(s)	Claim(s) Shown Unpatentable	Claim(s) Not Shown Unpatentable
21	103	Burns, Bellinghausen		21
18, 19, 21, 26, 29	103	Burns, LaCelle		18, 19, 21, 26, 29

Claim(s)	35 U.S.C. §	Reference(s)	Claim(s) Shown Unpatentable	Claim(s) Not Shown Unpatentable
26	103	Burns, Knight		26
Overall Outcome				18, 19, 21, 26, 29

V. ORDER

For the reasons given, it is:

ORDERED that claims 18, 19, 21, 26, and 29 of U.S. Patent No. 9,289,688 B2 have not been shown to be unpatentable;

FURTHER ORDERED that Ironburg's Motion to Exclude Evidence (Paper 48) is *granted-in-part* and *dismissed-in-part* without prejudice as set forth above;

FURTHER ORDERED that Ironburg's Motion to Exclude Evidence (Paper 63) is *dismissed* without prejudice; and

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

IPR2017-00858
Patent 9,289,688 B2

PETITIONER:

Joshua C. Harrison
Reynaldo C. Barceló
BARCELÓ, HARRISON & WALKER LLP
josh@bhiplaw.com
rey@bhiplaw.com

PATENT OWNER:

Robert Becker
Charles A. Kertell
MANATT, PHELPS & PHILLIPS, LLP
RBecker@manatt.com
CKertell@manatt.com