

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TRIPLE PLUS LTD.,
Petitioner,

v.

MORDECHAI BEN OLD,
Patent Owner.

Case PGR2018-00038
Patent 9,671,031 B2

Before BART A. GERSTENBLITH, GEORGE R. HOSKINS, and
FRANCES L. IPPOLITO, *Administrative Patent Judges*.

GERSTENBLITH, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 328(a); 37 C.F.R. § 42.73(a)

I. INTRODUCTION

A. *Background*

Triple Plus Ltd. (“Petitioner”) filed a Corrected Petition (Paper 3, “Petition” or “Pet.”) requesting institution of post-grant review of claim 1 of U.S. Patent No. 9,671,031 B2 (Ex. 1001, “the ’031 patent”). Mordechai Ben Old (“Patent Owner”) filed a Preliminary Response in the form of a Declaration by Mr. Ben Old, dated June 3, 2018. (Paper 7). We instituted a post-grant review of claim 1 on the sole ground asserted in the Petition—obviousness over the Triple+ nleak NWLTM Integrated Shutoff Unit, NWL-IVSL-34-0 (3/4 inch valve) product (the “Triple+ NWL”). Paper 8, 3, 28 (“Dec. on Inst.”).

After institution of trial, Patent Owner did not file a Response. Petitioner, however, filed a Reply. Paper 11 (“Pet. Reply”). Neither Patent Owner nor Petitioner requested oral argument. *See* Paper 12 (Petitioner’s notice indicating that it does not seek oral argument). Therefore, we did not hold oral argument in this case. *See* Paper 14 (cancelling oral argument).

Petitioner filed a Motion to Exclude Paper 7 Pursuant to 37 C.F.R. [§] 42.64(c). Paper 13 (“Motion”). Petitioner’s Motion seeks to exclude Patent Owner’s Preliminary Response. *Id.* at 1. Patent Owner did not file a response to Petitioner’s Motion.

We have jurisdiction under 35 U.S.C. § 6. Petitioner bears the burden of proving unpatentability of the challenged claim, and the burden of persuasion never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). To prevail, Petitioner must prove unpatentability by a preponderance of the evidence. *See* 35 U.S.C. § 326(e); 37 C.F.R. § 42.1(d). This Final Written Decision is issued

pursuant to 35 U.S.C. § 328(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claim 1 of the '031 patent is unpatentable. *See* 35 U.S.C. § 326(e).

B. Related Proceedings

The parties represent that there are no pending matters between Petitioner and Patent Owner, and no pending matters that would affect or be affected by our institution of post-grant review. Pet. 3; Paper 6, 2.

C. Real Parties in Interest

Petitioner identifies itself, “Triple Plus Ltd.,” as the real party in interest. Pet. 3. Patent Owner identifies himself, “Mordechai Ben Old,” as the sole real party in interest. Paper 6, 2.

D. The Reference

The sole reference relied on by Petitioner is the Triple+ NWL product. *See* Pet. 4, 12.

E. The Instituted Ground of Unpatentability

The sole ground raised in the Petition, and upon which we instituted this post-grant review, is whether the Triple+ NWL would have rendered the subject matter of claim 1 of the '031 patent obvious to one of ordinary skill in the art at the time of the invention. Pet. 4; Dec. on Inst. 28. The Petition is supported by a Declaration by Dr. Michael C. Johnson, dated February 27, 2018 (Ex. 1003), and a Declaration by Mr. Michael Attali, dated February 27, 2018 (Ex. 1018, “the Attali Declaration”).

F. The '031 Patent

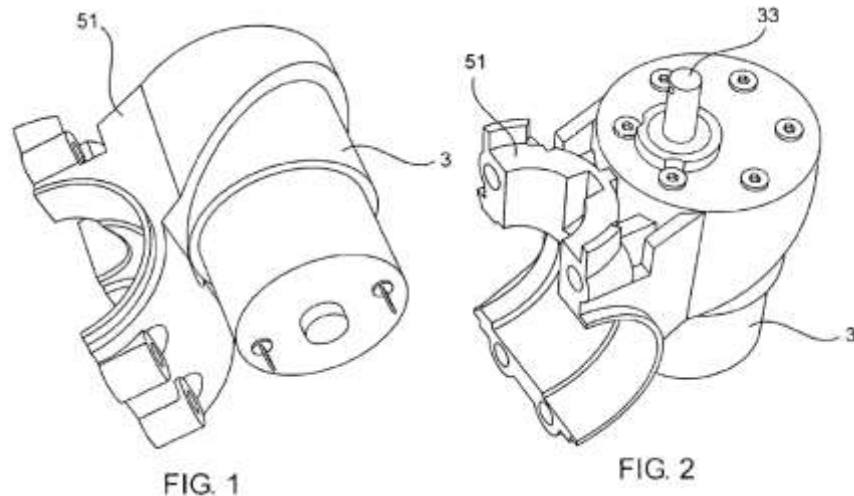
The '031 patent is directed to “a wireless electric valve for the automatic closing and opening of a main fluid pipe in response to a wireless command received from an external source such as an alarm system.”

Ex. 1001, 1:12–15. The '031 patent explains:

The valve (1) comprises a casing (2), an electric motor (3), an internal power source (31), an inner pipe (4) with an inlet (41), an outlet (42) and a butterfly (43), an inner clamp (5), a rotation shaft (44), a primary cogwheel (32) that is attached to the electric motor by means of a motor axle (33), a secondary cogwheel (45) that is attached to the rotation shaft, and an electronic control mechanism (6). The valve may also be equipped with a manual handle (7) that enables manual opening and closing of the valve (1).

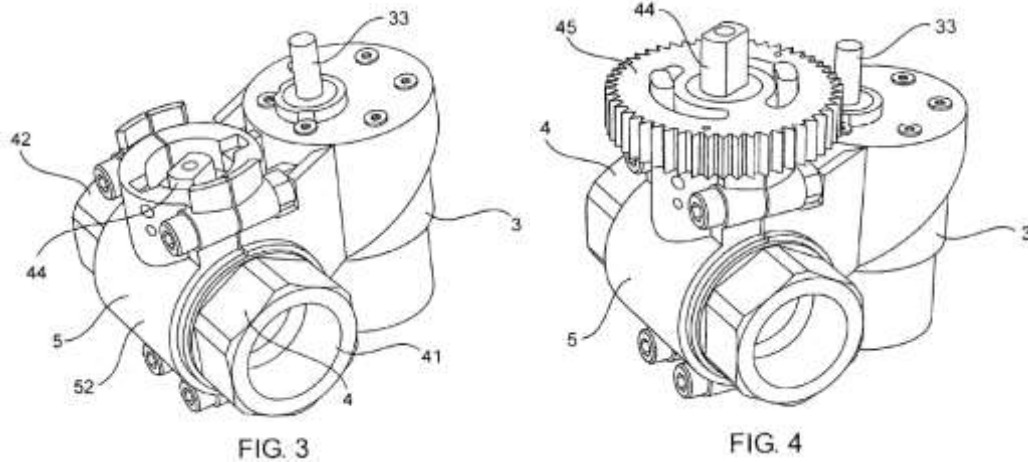
Id. at 2:32–41.

Figures 1 and 2 of the '031 patent are reproduced below:



Figures 1 and 2 illustrate “the motor (3) whereby it is attached to the inner clamp (5).” *Id.* at 1:52–53; *see id.* at 2:42–43.

Figures 3 and 4 of the '031 patent are reproduced below:



Figures 3 and 4 “depict the electric motor (3) whereby it is attached to the inner clamp (5), into which the inner pipe (4) is inserted.” *Id.* at 1:54–56.

Figure 5 of the '031 patent is reproduced below:

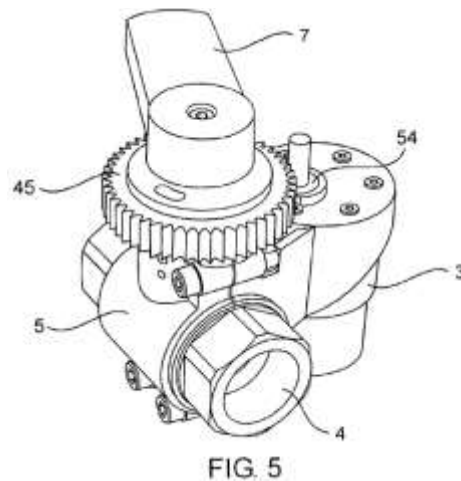


Figure 5 “depicts the electric motor (3), the inner clamp (5), the inner pipe (4), the motor axle (33), the rotation shaft (44), the secondary cogwheel (45), and the manual handle (7).” *Id.* at 1:57–59; *see id.* at 2:57–59.

Figure 11 of the '031 patent is reproduced below:

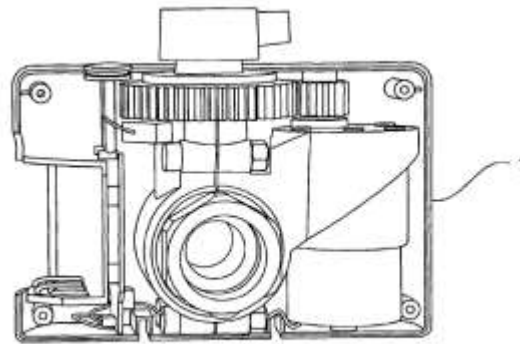
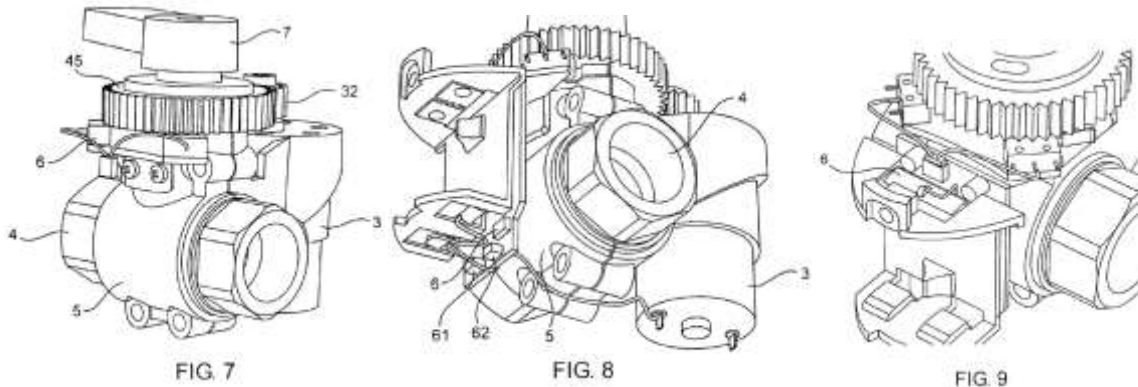


FIG. 11

Figure 11 of the '031 patent “depicts the components of the valve (1) when assembled within the casing (2).” *Id.* at 1:66–67; *see id.* at 2:63–65.

Figures 7–9 of the '031 patent are reproduced below:



Figures 7–9 of the '031 patent “depict the components of the valve (1) and the way in which the electronic control mechanism (6) is assembled in it.” *Id.* at 1:62–64. The valve includes electronic control mechanism (6), which includes a receiver and a printed circuit board. *Id.* at 2:66–67. “[E]lectronic control mechanism (6) connects the internal power source (31) to the electric motor (3) and controls the activation and deactivation of said motor.” *Id.* at 3:1–3.

The '031 patent explains the operation of the valve as follows:

When the electronic control mechanism receives a wireless command to close or open the automatic wireless electric valve (1), the following operations take place: the electronic control mechanism activates the electric motor, which turns the motor axle, the primary cogwheel, the secondary cogwheel, the rotation shaft, and the butterfly whereby closing or opening the inner pipe.

Id. at 4:18–24.

G. Challenged Claim

Claim 1 is the sole claim of the '031 patent and is reproduced below:

1. An automatic wireless electric valve that is designed to be installed on a main fluid pipe and to receive remote wireless open and close commands, comprising: a casing, an electric motor, an internal power source, an inner pipe with an inlet, an outlet and a butterfly, an inner clamp, a rotation shaft, a primary cogwheel that is attached to the electric motor by means of a motor axle, a secondary cogwheel that is attached to the rotation shaft, and an electronic control mechanism;

wherein the inner clamp includes a first part and a second part; wherein the first part of the inner clamp includes a chamber in which the electric motor is incorporated;

wherein the inner pipe is incorporated into the inner clamp; wherein the motor axle is attached to the electric motor so that when the electric motor turns, the motor axle revolves around its longitudinal axis; wherein the motor axle is protruded through a hole in the chamber; wherein the primary cogwheel is assembled on the motor axle; wherein the secondary cogwheel is assembled on the rotation shaft; wherein the primary cogwheel is meshed with the secondary cogwheel; wherein the rotation shaft is attached to the butterfly and is designed to turn the butterfly so as to close or open the inner pipe;

wherein the electronic control mechanism includes a receiver and a printed circuit board; wherein the electronic control mechanism connects the internal power source to the

electric motor and controls activation and deactivation of the electric motor;

wherein the casing includes an upper opening through which a manual handle is attached to the rotation shaft, two sided openings that enable access to the inlet and the outlet of the inner pipe, and a rear opening that enables access to the internal power source;

wherein when the electronic control mechanism receives a wireless command to close or open the automatic wireless electric valve, the following operations take place: the electronic control mechanism activates the electric motor, which turns the motor axle, the primary cogwheel, the secondary cogwheel, the rotation shaft, and the butterfly whereby closing or opening the inner pipe;

wherein the electric motor, the internal power source, the inner pipe, the inner clamp, the rotation shaft, the primary cogwheel, the motor axle, the secondary cogwheel and the electronic control mechanism contained inside the casing whereby enabling a user to install the automatic wireless electric valve on the main fluid pipe easily.

Ex. 1001, 4:26–5:7.

II. CLAIM CONSTRUCTION

In a post-grant review based on a petition filed prior to November 13, 2018, claim terms in an unexpired patent are construed according to their broadest reasonable interpretation in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.200(b) (2017);¹ *see also* *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016). There is a

¹ A recent amendment to this rule does not apply here because the Petition was filed before 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 (Oct. 11, 2018) (amending 37 C.F.R. § 42.200(b) effective Nov. 13, 2018) (to be codified at 37 C.F.R. pt. 42).

presumption that claim terms are given their ordinary and customary meaning, as would have been understood by a person of ordinary skill in the art in the context of the specification. *See In re Translogic Tech. Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Nonetheless, if the specification “reveal[s] a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess[,] . . . the inventor’s lexicography governs.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc) (citing *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002)). Another exception to the general rule that claims are given their ordinary and customary meaning is “when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *Uship Intellectual Props., LLC v. United States*, 714 F.3d 1311, 1313 (Fed. Cir. 2013) (quoting *Thorner v. Sony Comput. Entm’t Am., LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)). Additionally, only terms that are in controversy need to be construed, and these need be construed only to the extent necessary to resolve the controversy. *See Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

The parties do not propose express constructions for any claim terms and it does not appear that expressly construing claim terms will assist in resolving the present controversy between the parties. Accordingly, we do not need to construe expressly any claim terms for purposes of this Decision. *See Vivid Techs.*, 200 F.3d at 803.

III. ANALYSIS

A. *Eligibility for Post-Grant Review*

The post-grant review provisions of section six of the Leahy-Smith America Invents Act (“AIA”), Pub L. No. 112-29, 125 Stat. 284 (2011),

apply only to patents subject to the first inventor to file provisions of the AIA. AIA § 6(f)(2)(A). Specifically, the “first inventor to file” provisions apply to any application for patent, and to any patent issuing thereon, that contains or contained at any time a claim to a claimed invention that has an effective filing date on or after March 16, 2013. AIA § 3(n)(1).

Furthermore, “[a] petition for a post-grant review may only be filed not later than the date that is 9 months after the date of the grant of the patent or of the issuance of a reissue patent (as the case may be).” 35 U.S.C. § 321(c); *see also* 37 C.F.R. § 42.202(a) (setting forth the same).

As we explained in our Decision on Institution, the ’031 patent issued on June 6, 2017, from an application filed on November 1, 2015. Ex. 1001, at [22], [45]. The ’031 patent does not claim the benefit of an earlier filing date. Thus, we confirm our preliminary finding that the ’031 patent is available for post-grant review because it issued from an application that contains a claim with an effective filing date after March 16, 2013. Dec. on Inst. 8; *see* AIA §§ 3(n)(1), 6(f)(2)(A).

The Petition was filed on March 1, 2018, within 9 months of the grant of the ’031 patent. *See* Paper 5, 1 (Notice of Filing Date Accorded to Petition and Time for Filing Patent Owner Preliminary Response); *see also* 35 U.S.C. § 321(c) (limiting petitions for post-grant review to nine months from date of patent grant or reissue date). Petitioner certifies that it has standing to seek post-grant review of the ’031 patent. Pet. 2. Patent Owner has not challenged Petitioner’s contentions as to the eligibility of the ’031 patent for post-grant review. Accordingly, we agree with Petitioner that the ’031 patent is eligible for post-grant review.

B. Petitioner's Motion to Exclude

Petitioner's Motion seeks to exclude Patent Owner's Preliminary Response (Paper 7), which, as mentioned above, was submitted in the form of a declaration by Patent Owner. Motion 1. Patent Owner did not file a response to Petitioner's Motion. Petitioner represents that Patent Owner failed to participate in this proceeding after institution. *Id.* In particular, Petitioner contends Patent Owner "did not submit a Response; he failed to respond to correspondence about routine discovery; and he failed to appear for his noticed deposition or to otherwise respond to efforts to arrange his deposition." *Id.*

Petitioner asserts that cross-examination by deposition of an opposing side's declarant is considered routine discovery. *Id.* (citing Office Patent Trial Practice Guide, 77² Fed. Reg. 48,756, 48,761 (Aug. 14, 2012) ("Practice Guide")). Petitioner contends: "The burden and expense of producing a witness for redirect or cross-examination should normally fall on the party presenting the witness. Thus, a party presenting a witness's testimony by affidavit should arrange to make the witness available for cross-examination." *Id.* (quoting Practice Guide, 77 Fed. Reg. at 48,761).

Petitioner contends Patent Owner "thwarted Petitioner's routine discovery—preventing the development of a 'fair record,' 'meaningful discovery' and information Petitioner 'reasonably need[ed] to respond' to the issues raised by Patent Owner's declaration." *Id.* (quoting Practice Guide, 77 Fed. Reg. at 48,761). Accordingly, Petitioner argues that Patent

² Petitioner cites to "37 Fed. Reg. 48756, 48761 (Aug. 14, 2012)." Motion 1 (underlining added). We understand Petitioner to have intended to cite to 77 Fed. Reg. 48,756, which is the Practice Guide.

Owner's Preliminary Response should be disregarded and excluded. *Id.* at 2 (citing *1964 Ears, LLC v. Jerry Harvey Audio Holding, LLC*, Case IPR2016-00494, slip op. at 4 (PTAB Jan. 30, 2017) (Paper 40)).

As indicated above, Patent Owner did not file a Response. The subject declaration was filed as Patent Owner's Preliminary Response. Patent Owner's Preliminary Response states: "Patent Owner, Mordechai Ben Old, hereby submits the following preliminary response in the form of declaration." Paper 7, 2. To the extent Patent Owner's Preliminary Response/declaration would be given any weight post-institution, we agree with Petitioner that it would be considered routine discovery and that Patent Owner was required to make himself available for deposition. *See Practice Guide*, 77 Fed. Reg. at 48,761 ("Routine discovery includes: . . . (2) the cross-examination of the other side[']s declarants . . ."). Patent Owner did not do so.

Additionally, the record reflects that Patent Owner has continued to fail to participate in this proceeding. In particular, Patent Owner did not respond to our Order specifying "that Patent Owner shall appear . . . on or before May 30, 2019, and show cause as to why adverse judgment should not be issued against Patent Owner for abandonment of the contest pursuant to 37 C.F.R. § 42.73(b)(4)." Paper 14, 3.

Accordingly, in light of Patent Owner's failure to participate in the proceeding by appearing for a deposition by Petitioner or otherwise, we agree that the appropriate remedy is to exclude Patent Owner's declaration, submitted as its Preliminary Response (Paper 7). Thus, to the extent we

would have considered Patent Owner's declaration at this post-institution stage of the proceeding, we decline to do so.³

C. Obviousness over the Triple+ NWL

The U.S. Supreme Court set forth the framework for applying the statutory language of 35 U.S.C. § 103 in *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17–18 (1966):

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.^[4]

As explained by the Supreme Court in *KSR International Co. v. Teleflex Inc.*:

Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit.

³ Even if we considered Patent Owner's Preliminary Response/declaration at this stage of the proceeding, we would reach the same findings and conclusions reached in the Decision on Institution and also find that Petitioner sufficiently established the factual and legal support for the findings reached in this Final Written Decision. In other words, consideration of Patent Owner's Preliminary Response/declaration would not change the result reached here.

⁴ Neither party relies upon objective indicia of nonobviousness.

550 U.S. 398, 418 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”)).

“Whether an ordinarily skilled artisan would have been motivated to modify the teachings of a reference is a question of fact.” *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1327 (Fed. Cir. 2016) (citations omitted). “[W]here a party argues a skilled artisan would have been motivated to combine references, it must show the artisan ‘would have had a reasonable expectation of success from doing so.’” *Arctic Cat Inc. v. Bombardier Recreational Prods. Inc.*, 876 F.3d 1350, 1360–61 (Fed. Cir. 2017) (quoting *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1068–69 (Fed. Cir. 2012)).

1. *Level of Ordinary Skill in the Art*

Petitioner contends that a person of ordinary skill in the art would have had: “a Bachelor of Science degree in a field of engineering or a closely related discipline, and at least one year of practical academic or industrial experience designing, testing and/or manufacturing fluid control valves.” Pet. 11 (citing Ex. 1003 ¶¶ 28–30). As discussed above, Patent Owner did not file a Response.

We reiterate our preliminary finding from the Decision on Institution, that, consistent with the level of ordinary skill in the art reflected by the prior art of record, we adopt the level of ordinary skill in the art proposed by Petitioner based on the present record. See Dec. on Inst. 10; *Okajima v.*

Bourdeau, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978).

2. *Scope and Content of the Prior Art*

a. *Triple+ NWL as Prior Art*

Petitioner contends that the subject matter of claim 1 of the '031 patent would have been obvious to one of ordinary skill in the art based on the Triple+ NWL. Pet. 31–63. Petitioner asserts that the Triple+ NWL was “in public use, on sale, and otherwise available to the public before November 1, 2015.”⁵ *Id.* at 18. Petitioner notes that the exception in § 102(b)(1) “does not apply since the disclosures relied on [by] Petitioner are all more than one year prior to the effective filing date.” *Id.* at 18–19.

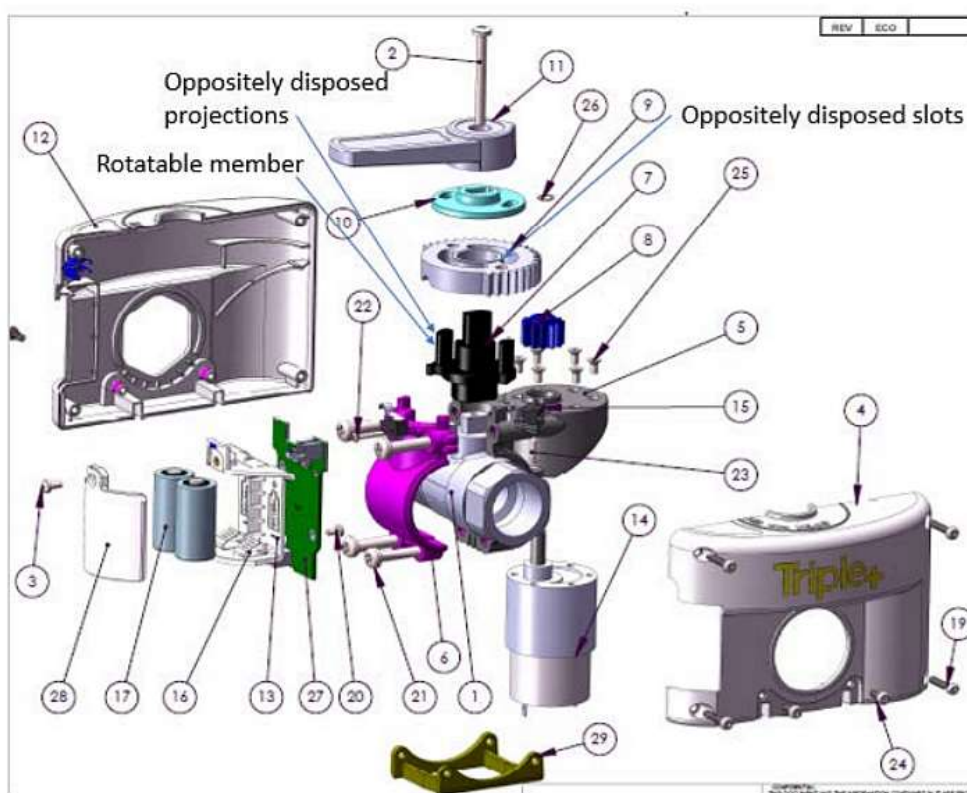
Petitioner argues that there are several independent bases for finding that the Triple+ NWL is prior art to the '031 patent: (1) YouTube videos demonstrating public use of Triple+ NWL; (2) offers for sale of the Triple+ NWL; (3) public installations of the Triple+ NWL; and (4) a sale of 4,000 units of the Triple+ NWL. *Id.* at 21–29. In our Decision on Institution, we found that Petitioner had established, on the preliminary record, that the installations of the Triple+ NWL constituted public use (Dec. on Inst. 18–22) and that the Triple+ NWL was “on sale” prior to November 1, 2015, the filing date (and effective priority date) of the '031 patent (*id.* at 22–23). As discussed above, Patent Owner did not file a Response. Therefore, we find that Patent Owner has waived any challenge to the status of the Triple+ NWL as prior art. See Paper 9, 5 (“Patent Owner is cautioned that any

⁵ As Petitioner remarks, the '031 patent was filed on November 1, 2015, and does not claim priority to any other patent application. Pet. 18; Ex. 1001, at [22]. Accordingly, we agree with Petitioner that the current version of 35 U.S.C. § 102, as amended by the AIA, governs.

arguments for patentability not raised in the response may be deemed waived.”).⁶

b. Triple+ NWL

Petitioner submitted Exhibits 1005–1010, which are photographs and drawings of the Triple+ NWL, an assembly guide, and a materials list. A partial version of Exhibit 1006, annotated by Petitioner, is reproduced below:



⁶ Petitioner filed a Reply focused on whether the Triple+ NWL is prior art to the '031 patent. Pet. Reply 4–17. We need not address the additional arguments therein because we find that Patent Owner has waived any challenge to Petitioner’s contention and our preliminary finding set forth in the Decision on Institution. To the extent it is deemed necessary, we hereby expressly adopt our reasoning and finding in the Decision on Institution that Petitioner sufficiently demonstrated that the Triple+ NWL is prior art to the '031 patent. See Dec. on Inst. 18–23.

The partial version of Exhibit 1006, shown above, is an exploded-parts view of the Triple+ NWL illustrating the parts and assembly, in which Petitioner annotated to indicate “Oppositely disposed projections,” “Rotatable member,” and “Oppositely disposed slots,” and to remove the description of the item numbers. *Compare* Pet. 16, with Ex. 1006, 1.

Mr. Michael Attali provides the following testimony describing the operation of the Triple+ NWL:

The general operation of the valve prototype (and ultimately the commercial version) is straightforward. When the wireless transmitter/receiver attached on the printed circuit board within the unit received an appropriate signal, the unit’s electronic control mechanism provided a wired signal to the electric motor to start. This turned the spur gear on the motor axle which was engaged with and rotated the valve gear. The valve gear rotated the valve shaft thereby opening or closing the valve. A handle was provided to allow for manual override for opening and closing of the valve.

Ex. 1018 ¶ 6. The Triple+ NWL “includes a valve 1 that is a quarter turn rotary ball valve.” Pet. 14 (citing Ex. 1006; Ex. 1003 ¶¶ 36–39, 56).

3. *Differences Between the Prior Art and the Claims;
Motivation to Combine*

Petitioner maps each limitation of claim 1 to the Triple+ NWL, with one exception that the Triple+ NWL includes a ball valve whereas claim 1 requires a butterfly. *See id.* at 32–63; *see also id.* at 31 (“the Triple+ NWL discloses every element of claim 1 except for the choice of quarter turn rotary valve type,” i.e., the claimed butterfly valve). Petitioner asserts that “[t]he ball valve is interchangeable with the claimed ‘butterfly,’ and it would have been obvious to [a person of ordinary skill in the art] to substitute one for the other.” *Id.* at 35 (citing Ex. 1003 ¶¶ 36–40, 56–57). Petitioner relies

upon Dr. Johnson’s testimony in support of this position. *See, e.g., id.* at 36 (citing Ex. 1003 ¶¶ 36–40).

In particular, Petitioner states:

a ball valve (like in the Triple+ NWL) is a member of the same family of valves as the butterfly. Except for the shape of the valve member, both are functionally and operationally identical, and both can and were used as shut-off valves for main water lines entering a residence or other structure.

Id. (citing Ex. 1003 ¶¶ 36–40). Petitioner asserts that “[t]he Triple+ NWL used a ball valve and was intended for use as a shut-off valve on the main water line.” *Id.* at 37. Petitioner thus contends that: (1) this use for any quarter turn rotary valve type was well known to one of ordinary skill in the art, *id.* (citing Ex. 1003 ¶¶ 39–40); (2) “replacing a ball valve with a butterfly valve was a ‘simple design choice and an obvious replacement’” to a person of ordinary skill in the art, *id.* at 37–38 (quoting Ex. 1003 ¶¶ 56–57); and (3) “[s]ubstituting one known type of a valve for another—particularly within the same family of valves such as the quarter turn rotary valve family—is the epitome of an obvious design choice” to a person of ordinary skill in the art, *id.* at 38 (citing *KSR*, 550 U.S. at 416, 421).⁷

We have reviewed Petitioner’s analysis mapping the Triple+ NWL to each of the limitations of claim 1, and the arguments and evidence of record,

⁷ Petitioner points to Dr. Johnson’s testimony regarding U.S. Patent No. 6,945,274 (the “’274 patent”). Pet. 38–39 (citing Ex. 1019, 3:40–43; Ex. 1003 ¶ 40). Petitioner contends that Dr. Johnson provided an example of an obvious substitution by pointing to a statement in the ’274 patent that teaches a water line for a residential or commercial property using an operable shut off valve, “which ‘can be a gate valve, ball valve, globe valve, butterfly valve, or any type of valve that can be operated to stop water flow.’” *Id.* (citing Ex. 1019, 3:40–43; Ex. 1003 ¶ 40).

including the reasons with rational underpinnings as to why one of ordinary skill in the art would have modified the Triple+ NWL to use a butterfly valve instead of a ball valve.⁸ Pet. 31–63. As discussed above, Patent Owner has waived any argument for patentability and, therefore, Petitioner’s arguments are unrebutted. Because Petitioner’s analysis is supported sufficiently on the record and is unrebutted, we adopt Petitioner’s reasoning as our own. Accordingly, Petitioner demonstrates by a preponderance of the evidence that the Triple+ NWL would have rendered the subject matter of claim 1 of the ’031 patent obvious to one of ordinary skill in the art at the time of the invention. *See* 35 U.S.C. § 328(a).

IV. CONCLUSION

For the foregoing reasons, on this record, Petitioner has demonstrated by a preponderance of the evidence that claim 1 of the ’031 patent is unpatentable.

V. ORDER

Accordingly, it is:

ORDERED that claim 1 of U.S. Patent No. 9,671,031 B2 has been shown to be unpatentable; and

⁸ Additionally, the evidence of record supports the finding that claim 1 of the ’031 patent “claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field” (*KSR*, 550 U.S. at 416), and that the substitution of a butterfly valve for the ball valve of the Triple+ NWL yields no more than the predictable result expected (i.e., stopping water flow). *See* Pet. 38–39 (quoting Ex. 1019, 3:40–43) (citing Ex. 1003 ¶ 40); *see also id.* at 6–7 (quoting Ex. 1003 ¶¶ 38–40).

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

PGR2018-00038
Patent 9,671,031 B2

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