

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ATLANTA GAS LIGHT COMPANY
Petitioner

v.

BENNETT REGULATOR GUARDS, INC.
Patent Owner

Case IPR2013-00453
Patent 5,810,029

Before JENNIFER S. BISK, JAMES B. ARPIN, and
PATRICK M. BOUCHER, *Administrative Patent Judges*.

BOUCHER, *Administrative Patent Judge*.

DECISION
Institution of *Inter Partes* Review
37 C.F.R. § 42.208

On July 18, 2013, Atlanta Gas Light Company (“Petitioner” or
“AGLC”) filed a petition (Paper 2) to institute an *inter partes* review of

Case IPR2013-00453
Patent 5,810,029

claims 1–8 of U.S. Patent No. 5,810,029 (“the ’029 patent”) pursuant to 35 U.S.C. §§ 311–319. A corrected petition (Paper 4, “Pet.”) was filed on July 26, 2013. Bennett Regulator Guards, Inc. (“Patent Owner”) filed a preliminary response (Paper 13, “Prelim. Resp.”) to the corrected petition on October 23, 2013. Pursuant to our authorization, Patent Owner filed a supplemental preliminary response (Paper 21, “Suppl. Prelim. Resp.”) on November 15, 2013, and Petitioner filed a reply (Paper 27, “Reply”) to the preliminary response and supplemental preliminary response on November 27, 2013.

I. BACKGROUND

The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a):

THRESHOLD—The Director may not authorize an *inter partes* review to be instituted unless the Director determines that the information presented in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.

Upon consideration of the corrected petition, patent owner preliminary response, supplemental patent owner preliminary response, and petitioner reply, we determine that the information presented in the corrected petition establishes that there is a reasonable likelihood that Petitioner would prevail with respect to claims 1–8 of the ’029 patent. Accordingly, pursuant to

35 U.S.C. § 314, we authorize an *inter partes* review to be instituted as to claims 1–8 of the '029 patent.

A. The '029 Patent (Ex. 1014)

The '029 patent, titled “Anti-Icing Device for a Gas Pressure Regulators,” issued on September 22, 1998, based on Application No. 08/491,273. The '029 patent “relates to natural gas distribution and especially to problems associated with the pressure regulator valve used to reduce gas pressure from the relatively high level used in a distribution system to the relatively low pressure level used in a customer’s building or residence.” Ex. 1014, col. 1, ll. 5–9. Pressure regulators may include a flexible diaphragm that divides the interior space of a surrounding diaphragm housing into low-pressure and atmospheric-pressure chambers, with an opening provided to vent the atmospheric-pressure chamber to the atmosphere. *Id.* at col. 1, ll. 37–44. Because pressure regulators may be mounted on the outside of a building, where they may be exposed to prevailing weather conditions, the vent may be protected with a vent tube having a downward orientation that reduces the amount of, or prevents, precipitation from entering the vent tube. *Id.* at col. 1, ll. 51–60. A metal screen over an outlet end of the vent tube further reduces, or prevents, intrusion by insects into the housing. *Id.* at col. 1, ll. 56–60. As the '029 patent explains, these precautions do not prevent problems associated with icing, which can manifest by the formation of an icicle or by splashing of

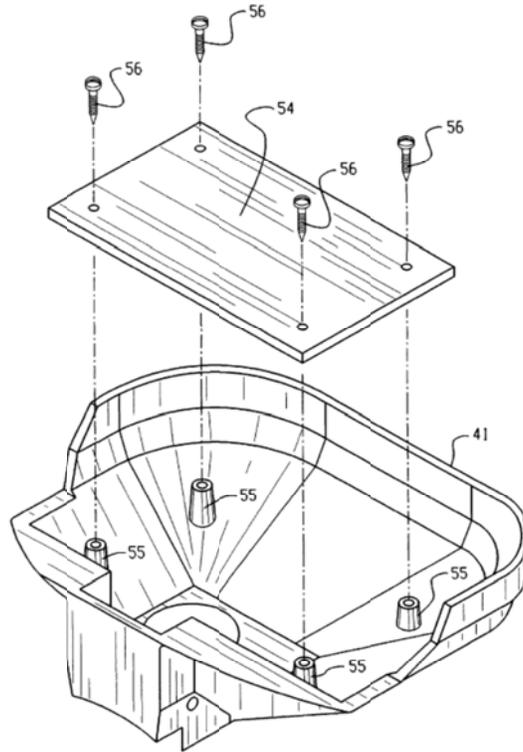


Fig. 6

Specifically, Figure 6 provides an exploded, perspective view of the interior of skirt assembly 40, showing baffle plate 54 having edges that “are sufficiently spaced from the interior walls of the skirt that substantial space is provided for the venting of gas and or air through the skirt.” *Id.* at col. 4, ll. 6–8. A screen (not shown) may be mounted at the lower end of the skirt to reduce or prevent insect intrusion. *Id.* at col. 4, ll. 8–9.

B. Illustrative Claim

Claim 1 of the '029 patent is illustrative of the claims at issue:

1. A skirt assembly for reducing ice formation at an outlet vent tube from the atmospheric pressure chamber of a diaphragm-type gas pressure regulator, comprising:

a skirt receiver adapted to be operatively connected to said vent tube;

a skirt member defining an interior space and having an upper end opening connecting said vent tube to said interior space and an outwardly flared lower end with an area substantially greater than the area of said upper end opening, said skirt member being operatively connected to said skirt receiver means; and

baffle means located in said interior space to underlie said upper end opening and being spaced from the interior walls of said skirt to permit gas flow therearound;

whereby ice formation tending to block said vent tube is inhibited.

C. Asserted Grounds of Unpatentability

1. References Relied Upon

Petitioner relies on the following references.

Ward	US 2,494,679	Jan. 17, 1950	(Ex. 1016)
Peterson	US 2,620,087	Dec. 2, 1952	(Ex. 1015)
Ferguson	US 3,985,157	Oct. 12, 1976	(Ex. 1017)
Ohmae	US 4,957, 660	Sep. 18, 1990	(Ex. 1018)

Canadian Meter Company Quality Communiqué (“CMC”), published April 1992 (Ex. 1019)

Prior art described at col. 1, ll. 13–50 of the ’029 patent (Ex. 1014)

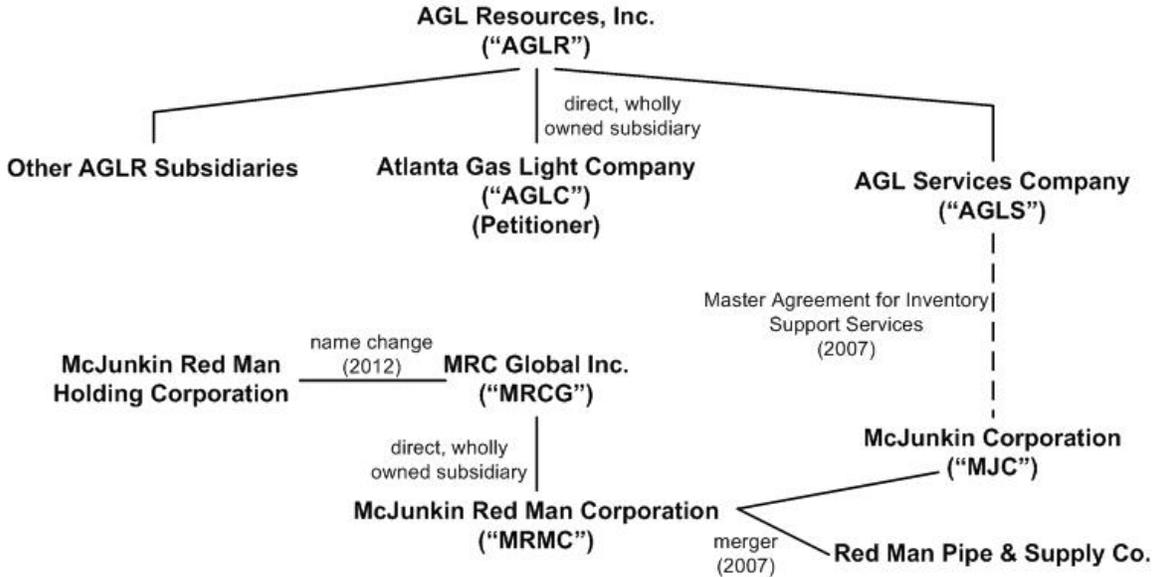
2. Specific Grounds

Petitioner challenges claims 1–8 of the '029 patent on the following grounds (Pet. 5–7):

Reference(s)	Basis	Claim(s) Challenged
Peterson	§ 102(b)	1 and 5
Peterson and Ferguson	§ 103(a)	2, 4, 6, and 8
Peterson, Ferguson, and Ohmae	§ 103(a)	3 and 7
Peterson and prior art described in the '029 patent	§ 103(a)	5
Peterson, prior art described in the '029 patent, and Ferguson	§ 103(a)	6 and 8
Peterson, prior art described in the '029 patent, Ferguson, and Ohmae	§ 103(a)	7
Ward	§ 102(b)	1, 4, 5, and 8
Ward and Ferguson	§ 103(a)	2 and 6
Ward, Ferguson, and Ohmae	§ 103(a)	3 and 7
Ward and prior art described in the '029 patent	§ 103(a)	5 and 8
Ward, prior art described in the '029 patent, and Ferguson	§ 103(a)	6
Ward, prior art described in the '029 patent, Ferguson, and Ohmae	§ 103(a)	7
CMC and Peterson	§ 103(a)	1, 2, 4–6, and 8
CMC, Peterson, and Ohmae	§ 103(a)	3 and 7

D. Related Parties and Proceedings

Issues presented to us under 35 U.S.C. §§ 312(a) and 315(b) involve a number of third parties related to Petitioner. The Board's diagram below summarizes those relationships.



The summary of relationships provided by the above diagram is relevant to a proceeding in which the '029 patent currently is involved, namely *Bennett Regulatory Guards, Inc. v. McJunkin Red Man Corp. and Atlanta Gas Light Company*, Civil Action 5:12-cv-1040, pending in the United States District Court for the Northern District of Ohio (“the district court proceeding”).

Pet. 1.

Patent Owner filed a complaint (Ex. 2002) initiating the district court proceeding on April 26, 2012. Prelim. Resp. 2. The caption of the complaint identified Petitioner and MRC Global Inc. (“MRCG”) as defendants; the body of the complaint included assertions that “[u]pon information and belief, on or about January 10, 2012, McJunkin Redman Corporation . . . changed its name to MRC Global Inc.,” and that references to MRCG referred both to MRCG and to McJunkin Redman Corporation

(“MRMC”). Ex. 2002 ¶ 3. MRCG was served with the complaint on July 11, 2012 (Ex. 2003 (Return of service MRCG)), and Petitioner was served on July 18, 2012. Pet. 1.

The complaint’s assertion that MRMC changed its name to MRC Global Inc. proved incorrect. In fact, on January 10, 2012, MRCG amended its certificate of incorporation and bylaws to reflect a name change of a different entity, McJunkin Red Man Holding Corporation, to MRC Global Inc. Ex. 1028 ¶ 4. Subsequently, Patent Owner filed an amended complaint in the district court proceeding, naming Petitioner and MRMC as defendants and deleting MRCG as a named defendant. Ex. 2004. Petitioner and MRMC consented to the filing of the amended complaint, with both Petitioner and MRMC agreeing that the amended complaint “relates back to the filing of the Complaint on April 26, 2012.” Ex. 2005.

On July 3, 2013, the district court dismissed Petitioner as a defendant for lack of personal jurisdiction. Ex. 2006. MRMC remains a defendant. Prelim. Resp. 11.

Patent Owner asserts that MRMC is a direct, wholly owned subsidiary of MRCG, Prelim. Resp. 3 (citing Ex. 2016 at 3), formed in 2007 from the merger of McJunkin Corporation (“MJC”) and Red Man Pipe & Supply Co., Prelim. Resp. 3 (citing Ex. 2010). Patent Owner further asserts that Petitioner is a direct, wholly owned subsidiary of AGL Resources, Inc. (“AGLR”). Prelim. Resp. 3 (citing Ex. 2006 at 4). Another of AGLR’s

subsidiaries is AGL Services Company (“AGLS”). Prelim. Resp. 3 (citing Ex. 2006 at 5).

In 2007, MJC executed a “Master Agreement for Inventory Support Services” (“the supply agreement”) with AGLS “in its own behalf and/or on behalf of [AGLR] and one or more of the subsidiaries of [AGLR]” to supply AGLR subsidiaries with various products at an agreed price schedule. *See* Ex. 2006 at 5. The supply agreement includes certain indemnification and limitation-of-liability provisions. *See* Reply 3–4. Petitioner represents that “AGLC [Petitioner] and MRMC have disputed whether any indemnity is owed between them” in connection with the district court proceeding. Reply at 4 (citing Ex. 1027 ¶ 3).

II. DISCUSSION

A. *Real Parties-in-Interest Under 35 U.S.C. § 312(a)*

The statute governing *inter partes* review proceedings sets forth certain requirements for a petition for *inter partes* review, including that “the petition identif[y] *all* real parties in interest.” 35 U.S.C. § 312(a) (emphasis added); *see also* 37 C.F.R. § 42.8(b)(1) (requirement to identify real parties in interest in mandatory notices). The Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,764 (Aug. 14, 2012) (“Practice Guide”) explains that “[w]hether a party who is not a named participant in a given proceeding nonetheless constitutes a ‘real party-in-interest’ . . . to that proceeding is a

highly fact-dependent question.” 77 Fed. Reg. 48,759. The Practice Guide further states that

the spirit of that formulation as to IPR . . . proceedings means that, at a general level, the ‘real party-in-interest’ is the party that desires review of the patent. Thus, the ‘real party-in-interest’ may be the petitioner itself, and/or it may be the real party or parties *at whose behest* the petition has been filed.

Id. at 48,759 (emphasis added).

Patent Owner contends that, by virtue of the provisions of the supply agreement, MRMC, AGLR, and the AGLR subsidiaries are real parties-in-interest with respect to each other, and that Petitioner failed to identify any of these parties as real parties-in-interest in its petition. Suppl. Prelim. Resp. 15–19. Patent Owner asserts that, pursuant to the indemnification provisions of the supply agreement, “MRMC is required to defend any infringement claim against AGLR and its subsidiaries, and AGLR and its subsidiaries are required to reasonably cooperate in any such defense.” *Id.* at 10. Patent Owner reasons that “[t]he Petition amounts to a defense of the [district court proceeding] in a forum other than the trial court and was filed by a party that was required to cooperate in the defense of the [district court proceeding].”

Id..

The Practice Guide indicates that

[t]he core function[] of the “real party-in interest” . . . requirement[] [is] *to assist members of the Board in identifying potential conflicts, and to assure proper application of the statutory estoppel provisions.* The latter, in turn, seeks to

protect patent owners from harassment via successive petitions by the same or related parties, to prevent parties from having a ‘second bite at the apple,’ and to protect the integrity of both the USPTO and Federal Courts by assuring that all issues are promptly raised and vetted.

77 Fed. Reg. at 48,759 (emphasis added). As applied before the Office, the statutory estoppel provisions provide that

[t]he petitioner in an inter partes review of a claim in a patent under this chapter that results in a final written decision under section 318(a), or the real party in interest . . . of the petitioner, may not request or maintain a proceeding before the Office with respect to that claim on any ground that the petitioner raised or reasonably could have raised during that inter partes review.

35 U.S.C. § 315(e)(1) (emphasis added). Patent Owner has not argued that these explicit statutory estoppel provisions apply to bar requesting or maintaining an *inter partes* review initiated by Petitioner. Rather, Patent Owner relies only on the requirement that all real parties-in-interest be identified *in the petition* and its speculation that “[f]iling the Petition after AGLR and its subsidiaries had been dismissed from the [district court proceeding] *suggests* that MRMC is controlling and paying for the Petition.” Suppl. Prelim. Resp. 16 (emphasis added).

Patent Owner provides insufficient evidence to support its speculative contention that any party other than Petitioner, in fact, is funding or controlling Petitioner’s involvement in this proceeding, or that the Petition was filed “at the behest” of any party other than Petitioner. To the contrary,

Petitioner has provided a declaration (Ex. 1027) by Bob Schnorr, Vice President of Supply Chain & Fleet for Petitioner, in support of its representations that “MRMC has not indemnified AGLC – nor has it directed, controlled, or funded AGLC – in connection with the [district court proceeding] or this IPR proceeding.” Reply 1. Mr. Schnorr asserts that MRMC has not directed Petitioner’s filing of the petition or exercised control over Petitioner’s involvement in this proceeding, has not provided any funding for Petitioner’s involvement in this proceeding, and did not draft the petition. Ex. 1027 ¶¶ 8–10.¹

On the record before us, and after consideration of the specific arguments presented to us, we conclude that institution of an *inter partes* review is not barred by 35 U.S.C. § 312(a) under these facts.

B. Privies Under 35 U.S.C. § 315(b)

Under 35 U.S.C. § 315(b), institution of an *inter partes* review is barred “if the petition requesting the proceeding is filed more than 1 year after the date *on which the petitioner, real party in interest, or privy of the*

¹ We agree with Patent Owner (*see* Paper 30 at 2) that Mr. Schnorr’s assertion that “AGLC and MR[M]C *have disputed whether* any indemnity is owed between them in connection with the Lawsuit” is potentially inconsistent with his assertion that “[n]either AGLC nor MR[M]C has indemnified, *or agreed to indemnify in the future*, the other party in connection with the Lawsuit.” Ex. 1027, ¶ 3 (emphases added). Because our conclusion does not depend on resolution of the potential inconsistency, however, we do not address that potential inconsistency further here.

petitioner is served with a complaint alleging infringement of the patent” (emphasis added).

Patent Owner contends that, by virtue of various provisions of the supply agreement, MRMC is a privy of Petitioner and that institution of an *inter partes* review is barred because MRMC was served with a complaint alleging infringement of the '029 patent more than one year before the petition was filed. Prelim. Resp. 2.

We note that “[t]he notion of ‘privity’ is more expansive, encompassing parties that do not necessarily need to be identified in the petition as a ‘real party-in-interest.’” 77 Fed. Reg. at 48,759. It is undisputed that service was effected on MRCG as an initially named defendant in the district court proceeding on July 11, 2012, more than one year before the petition was filed on July 18, 2013. Ex. 2003. Patent Owner provides evidence that MRCG and MRMC share the same office space, telephone number, and facsimile number, and that they have overlapping management. Prelim. Resp. 4 (citing Exs. 2007–2009, 2012, and 2013). Petitioner does not dispute this evidence. Patent Owner provides no evidence of service on MRMC, but asserts instead that “MRCG and MRMC are sufficiently closely related that service of the complaint on one constitutes service of the complaint on the other.” *Id.* at 14. It also is undisputed that Petitioner was served as a defendant in the district court proceeding on July 18, 2012. Pet. 1.

Because we conclude that Patent Owner's basis for privity, namely various provisions of the supply agreement, did not go into effect until service was effected on Petitioner, i.e., until Petitioner was noticed of the nature of the complaint against it, we need not reach the issue whether MRCG and MRMC are related sufficiently closely to impute service on one to service on the other. *See* 77 Fed. Reg. at 48,759 ("a common consideration is whether the non-party exercised or *could have exercised* control over a party's participation in a proceeding"; emphasis added). The determination whether a third party is a privy is contextual; "[w]hether a party who is not a named participant in a given proceeding nonetheless constitutes a . . . 'privy' to that proceeding is a highly fact-dependent question," *Id.* (citing *Taylor v. Sturgell*, 553 U.S. 880 (2008)). Patent Owner does not relate its assertion of privity adequately to the rights asserted in the petition and to the context provided by 35 U.S.C. § 315(b).

Patent Owner contends that MRMC has breached certain provisions in the supply agreement and that "[t]hat breach imposes an obligation to make AGLR and its subsidiaries whole for any damages sustained by them *in an infringement suit.*" Suppl. Prelim. Resp. 7 (emphasis added). Patent Owner's proposition that "the word 'privy' should mean a party that has a direct relationship with AGLC concerning the manufacture, sale and/or division of revenues from sales of the product that has been accused of infringing the '029 patent[,] or that has a direct interest in the proceeding or its outcome," (Prelim. Resp. 10; *see also* Suppl. Prelim. Resp. 15), is too

broad because it takes insufficient account of the context provided by 35 U.S.C. § 315(b). Specifically, Patent Owner's privity theory relies fundamentally on MRMC having the right to control Petitioner's involvement in this proceeding—a right that, at best, arises from Petitioner having been served with the complaint in the district court proceeding. Service upon MRCG and/or MRMC, prior to service upon Petitioner, creates no clear obligation or opportunity for control of Petitioner by MRMC in this proceeding. To the extent that such obligation or opportunity for control arose when Petitioner was served on July 18, 2012, Petitioner's filing of the petition on July 18, 2013, is timely.²

Therefore, we conclude that institution of an *inter partes* review is not barred by 35 U.S.C. § 315(b).

² Our present analysis is consistent with the Board's reasoning under different facts in *Synopsys, Inc. v. Mentor Graphics Corp.*, IPR2012-00042 (Paper 16). In *Synopsys*, a third party became a wholly owned subsidiary of the petitioner after the date on which the petition for *inter partes* review was filed. That third party had been served with a complaint alleging infringement of the patent at issue more than a year before the petition was filed. The Board concluded that 35 U.S.C. § 315(b) did not bar institution of the *inter partes* review because the patent owner provided no persuasive evidence that the petitioner could have exercised control over the third party's participation in the *inter partes* review at the time of service of the complaint upon the third party.

*C. Analysis of Asserted Grounds of Unpatentability*³

1. Claim Interpretation

Consistent with the statute and legislative history of the America Invents Act (AIA), the Board interprets claims using the “broadest reasonable construction in light of the specification of the patent in which [they] appear[.]” 37 C.F.R. § 42.100(b); *see also* 77 Fed. Reg. at 48,766. Under that construction, claim terms are given their ordinary and customary meaning as would be understood by one of ordinary skill in the art in the context of the entire patent disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Nevertheless, a “claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer and clearly set forth a definition of the disputed claim term in either the specification or prosecution history.” *Id.* Such definitions must be set forth with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). In the absence of such a special definition or other consideration, “limitations are not to be read into the claims from the specification.” *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

Petitioner proposes the following constructions of certain claim terms. Pet. 10–15. Patent Owner does not propose any claim construction, but Petitioner represents that each of its proposed constructions, except the “baffle means,” is the same as Patent Owner’s proposed construction in the

³ Patent Owner’s preliminary response and supplemental preliminary response do not address the asserted grounds of unpatentability.

district court proceeding. Because Petitioner’s proposed constructions are consistent with the broadest reasonable interpretation and with the Specification, we adopt them for purposes of this decision.

Claim Term	Construction
“skirt receiver”	“a structure that connects a skirt member or skirt to the vent tube of a gas pressure regulator,” Pet. 10.
“skirt receiver means”	“structure that connects a skirt member or skirt to the vent tube of a gas pressure regulator,” Pet. 12.
“skirt member”	“structure that (a) defines an interior space, (b) has an upper end opening connecting a vent tube to the interior space or communicating with a vent passage, (c) has an outwardly flared lower end opening with an area substantially greater than the area of the upper end opening, and (d) is operatively connected to a skirt receiver means,” Pet. 12.
“baffle means”	Interpreted as a means-plus-function limitation under § 112, ¶ 6. <u>Function</u> : “underlie the upper end opening or vent passage and permit gas to flow around the baffle” or “to assist in the prevention of ice formation by blocking splash-back of rain or freezing rain upwardly toward the vent tube opening” <u>Structure</u> : baffle plate 54, Pet. 13–14.
“valve means”	Interpreted as a means-plus-function limitation under § 112, ¶ 6. <u>Function</u> : “to control gas flow between the high pressure source and the low pressure line in a gas regulator” <u>Structure</u> : “any conventional diaphragm-type gas pressure regulator,”

	Pet. 14–15.
“outlet vent means” / “vent means”	Not governed by § 112, ¶ 6, and “should be given their ordinary meaning,” Pet. 15.

2. Asserted Grounds based on Peterson (Ex. 1015)

a. Independent claim 1

Peterson discloses “breathers and vents for gas service pressure regulators.” Ex. 1015, col. 1, ll. 3–4. Figure 2, reproduced below, is illustrative:

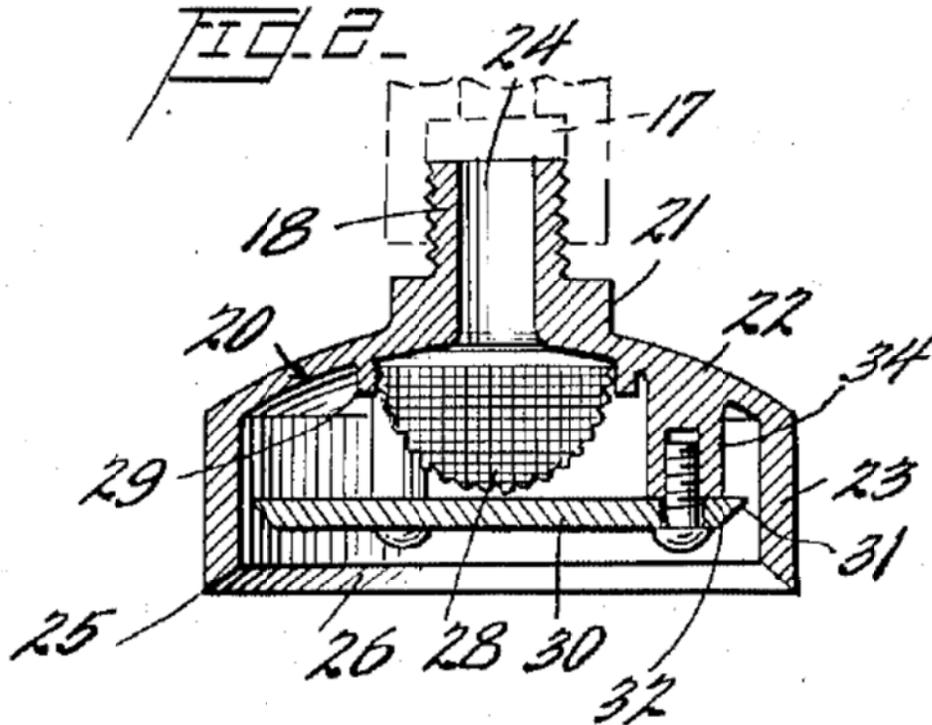


Figure 2 provides a central vertical cross-section of a breather or vent for a gas-service pressure regulator. *Id.* at col. 2, ll. 3–4. Similar to the '029 patent, Peterson notes that such gas-pressure regulators may be installed outdoors and that “[a]s a result[,] such regulators are exposed to all weather and other adverse conditions, and particularly have been troubled with stoppages of the vent passage to the air or back side of the diaphragm resulting from freezes following or [occurring] during rain or sleet storms or the like.” *Id.* at col. 2, ll. 17–23.

Threaded nipple 18 is connected operatively to the vent tube. *Id.* at col. 2, l. 51 – col. 3, l. 13. Petitioner argues a correspondence between threaded nipple 18 and the “skirt receiver” recited in independent claim 1.⁴ Pet. 26–27. Petitioner argues a further correspondence between the combination of “dome-like portion 22” and “cylindrical skirt 23 depending from the edge of the dome portion,” as disclosed by Peterson, with the “skirt member” recited in claim 1. Pet. 27–28; *see* Ex. 1015, col. 3, ll. 17–22. As noted by Petitioner, such a dome-like portion “defin[es] an interior space and [has] an upper end opening connecting said vent tube to said interior space and an outwardly flared lower end with an area substantially greater than the area of said upper opening,” and is connected operatively to threaded nipple 18, as recited in claim 1.

⁴ In addition to reciting a “skirt receiver,” independent claim 1 recites “said skirt receiver means,” without apparent antecedent support. For purposes of this decision, we construe “said skirt receiver means” in claim 1 as referring to the previously recited “skirt receiver.”

Petitioner contends that “rigid disc 30” corresponds to the “baffle means” because rigid disc 30 underlies the upper end opening or vent passage and permits gas to flow around, while acting to assist in the prevention of ice formation by blocking splash-back of rain or freezing rain upwardly toward the vent tube opening.” Pet. 29–30. As Peterson explains, “[t]he sharpened periphery of the disc is well protected against any accumulation of moisture so that this annulus is never closed as the result of rain or freezing.” Ex. 1015, col. 3, ll. 43–47.

We determine that Petitioner has demonstrated a reasonable likelihood of prevailing on its contention that independent claim 1 is anticipated by Peterson.

b. Independent claim 5

As Petitioner points out, “[t]he subject matter of claim 5 is almost identical to the subject matter of claim 1.” Pet. 31. Claim 5 additionally recites a “valve means,” “a diaphragm housing,” and “a diaphragm,” with certain limitations. Peterson discloses that “[t]he vent is associated with the chamber closing the back face of the diaphragm which responds to gas pressure to actuate the regulator valve.” Ex. 1015, col. 2, ll. 25–28.

Therefore, in view of the foregoing discussion of claim 1 and the additional limitations disclosed by Peterson, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on its contention that independent claim 5 is anticipated by Peterson.

Alternatively, Petitioner contends that the combination of Peterson and the prior art described by the '029 patent renders claim 5 obvious because “[t]he inventors’ [prior art described in the '029 patent] also discloses that diaphragm-type natural gas pressure regulators were *known in the natural gas distribution industry, [were] commonplace, and of a simple design.*” Pet. 47 (emphasis added). In the “BACKGROUND OF THE INVENTION,” the '029 patent includes a discussion of such regulators, including the valve, diaphragm housing, and diaphragm. Ex. 1014, col. 1, ll. 13–50. The pressure regulator valve shown in Figures 1–3 of the '029 patent is described as “*typical* of the type used by natural gas utilities in a gas distribution system.” *Id.* at col. 3, ll. 3–4 (emphasis added). The additional skirt assembly is provided to address the problems of ice formation. *Id.* at col. 3, ll. 46–49.

Therefore, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on its contention that independent claim 5 is unpatentable over the combination of Peterson and prior art described in the '029 patent.

c. Dependent claims 2 and 6

Each of dependent claims 2 and 6 recites that “said skirt member is formed of a molded plastic material.” Petitioner contends that, although Peterson “is silent as to the material for the skirt member,” Ferguson

“expressly teaches that vent covers used to protect a vent tube should be made of molded plastic,” (Pet. 40).

Ferguson “pertains to vent covers for gas pressure regulators.” Ex. 1017, col. 1, ll. 5–6. Ferguson teaches that “all of the components of the vent cover, including the cap, are formed of a synthetic plastic material which is noncorrodable and not adversely affected by weather conditions.” *Id.* at col. 5, ll. 13–16. Petitioner asserts that one of ordinary skill in the art would combine this teaching with the teachings of Peterson because both references “are directed at vent covers for vent tubes of natural gas regulators” and “address the problem of protecting the vent tube from inclement weather.” Pet. 41.

We determine that Petitioner has demonstrated a reasonable likelihood of prevailing on its contention that claims 2 and 6 are unpatentable over Peterson and Ferguson, and that claim 6 is unpatentable over Peterson and Ferguson in combination with prior art described in the ’029 patent.

d. Dependent claims 3 and 7

Each of dependent claims 3 and 7 recites that “said molded material is an electrically conductive plastic.” Petitioner contends that, although Ferguson “does not expressly state the electrical properties of the plastic used for the vent cover,” Ohmae “teaches a composition for a moldable plastic that is electrically conductive.” Pet. 43.

Ohmae “relates to an electrically conductive plastic molding using an ethylene copolymer and a process for producing the same.” Ex. 1018, col. 1, ll. 7–9. Petitioner contends that one of ordinary skill in the art would have combined Ohmae’s teaching with the teachings of Peterson and Ferguson because such a person “would understand the benefits of an antistatic material as the molded plastic for the skirt assembly, including reducing the likelihood of fire and explosions.” Pet. 44.

We determine that Petitioner has demonstrated a reasonable likelihood of prevailing on its contention that claims 3 and 7 are unpatentable over Peterson, Ferguson, and Ohmae, and that claim 7 is unpatentable over Peterson, Ferguson, and Ohmae in combination with prior art described in the ’029 patent.

e. Dependent claims 4 and 8

Each of dependent claims 4 and 8 recites “further including a screen element covering said lower end opening.”

Ferguson discloses that “vent cover 34 includes . . . vent opening 38, and . . . screen 40 is located within the cover adjacent the vent opening whereby vented gas passes through the screen, and the screen prevents insects and debris from entering the neck.” Ex. 1017, col. 3, ll. 41–46. In addition, Peterson discloses an optional screen as a defense to insects, dirt, and leaves, but positions such a screen near the upper end of the skirt assembly, rather than the lower end, as recited in claims 4 and 8. Ex. 1015,

col. 3, ll. 58–63. Accordingly, Petitioner contends that, because one of ordinary skill in the art would combine the teachings of Peterson and Ferguson, each of which “address[es] the problem of protecting the vent tube from inclement weather,” it “would have been *obvious to try* the screen at the lower end of the skirt assembly,” as suggested by Ferguson. Pet. 42 (emphasis added).

We determine that Petitioner has demonstrated a reasonable likelihood of prevailing on its contention that claims 4 and 8 are unpatentable over Peterson and Ferguson.

3. Asserted Grounds Based on Ward (Ex. 1016)

Ward discloses “ventilating devices and, more particularly, . . . an insect-proof, ice- and weather-proof, fire- and explosion-resistant breather cap.” Ex. 1016, col. 1, ll. 1–4. Figure 1, reproduced below, is illustrative:

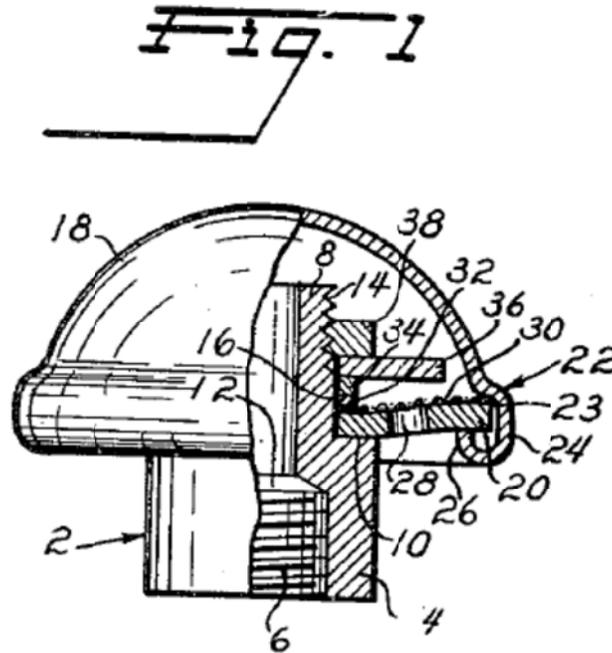


Figure 1 provides a partially broken-away, elevational view of a breather cap that may be used as part of a pressure-regulating apparatus for domestic gas systems. *See* Ex. 1016, col. 1, ll. 5–10. Similar to the '029 patent, Ward notes that such pressure regulators customarily include a vent or stand that extends outdoors for connecting one side of a diaphragm chamber to the atmosphere, and that such vent pipes “are notoriously vulnerable to freezing rain. Festoons of ice form around the lips with affinity towards the center because of the inhaling respiratory action of the breather, until the mouth is closed.” *Id.* at col. 1, ll. 13–17.

Ward teaches that, “[a]ccordingly, it is intended to provide a dome-shaped cap having a certain flare so that ice will form away from the opening.” *Id.* at col. 1, ll. 17–20. Petitioner finds a correspondence between hollow center post 2, as shown in Figure 1, and the “skirt receiver” or “skirt

receiver means,” as recited in independent claims 1 and 5. Pet. 34. Petitioner finds a further correspondence between cap 18 and the “skirt member,” as recited in independent claims 1 and 5, noting that the cap defines an interior space and having an upper end opening connecting the vent tube to the interior space and an outwardly flared lower end with an area substantially greater than the area of the upper end opening, as required by the claims.

Petitioner contends that Ward further discloses a baffle means that meets the limitations recited in the claims. *Id.* at 36. A baffle is described by Ward as follows:

It should be noted that the outer edge of baffle 36 is spaced from the inner side of cap 18 and, further, that disk 36 overlies and masks perforations 28, thus [detering] entry of moisture to the interior of the cap while also constituting a further element of the trap against fire from the exterior.

Ex. 1016, col. 3, ll. 7–13.

With respect to the “valve means,” “diaphragm housing,” and “diaphragm,” recited in independent claim 5, Petitioner contends that such elements are disclosed, at least inherently, by Ward. Pet. 37–39. We disagree with this contention because Petitioner’s arguments merely suggest that it would be obvious to use the breather cap of Ward with a valve and diaphragm of the type recited in claim 5. This, however, is not the standard for evaluating whether a characteristic is inherent. “The fact that a certain result or characteristic may occur or be present in the prior art is not

sufficient to establish the inherency of that result or characteristic.” *In re Rijckaert*, 9 F.3d 1531, 1534 (Fed. Cir. 1993). Rather, “[t]o establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is *necessarily* present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency . . . may not be established by probabilities or possibilities.” *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) (emphasis added; citations and internal quotations omitted).

Thus, although we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on its contention that independent claim 1 is anticipated by Ward, we determine that Petitioner has not demonstrated a reasonable likelihood of prevailing on its obviousness grounds with respect to independent claim 5, nor with respect to claim 8, which depends therefrom.

With respect to claim 4, which recites “further including a screen element covering said lower end opening,” Petitioner contends that Ward discloses this element. Pet. 39. Ward teaches that “disk-like screen 30 is disposed over the upper surface of disk 20, preferably with the outer edges of the screen clamped between the disk and seat 23 on the cap. Screen 30 excludes insects and also militates against the entry of moisture and flame.” Ex. 1016, col. 2, ll. 50–55. We determine that Petitioner has demonstrated a reasonable likelihood of prevailing on its contention that claim 4 is anticipated by Ward.

Petitioner's remaining contentions regarding other grounds based on Ward apply the same prior art discussed above for the grounds based on Peterson. Pet. 44–47, 50–51, 52, 53–54. For similar reasons, we are persuaded that Petitioner has made a persuasive showing. Specifically, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on the following contentions: that claims 2 and 6 are unpatentable over Ward and Ferguson; that claims 3 and 7 are unpatentable over Ward, Ferguson, and Ohmae; that claims 5 and 8 are unpatentable over Ward and prior art described in the '029 patent; that claim 6 is unpatentable over Ward, prior art described in the '029 patent, and Ferguson; and that claim 7 is unpatentable over Ward, prior art described in the '029 patent, Ferguson, and Ohmae.

4. *Grounds Based on CMC*

Petitioner contends that claims 1, 2, 4–6, and 8 are unpatentable over CMC and Peterson, and that claims 3 and 7 are unpatentable in further combination with Ohmae. Pet. 54–58. These grounds rely on Peterson's disclosure of a "rigid disc," which Petitioner contends corresponds to the "baffle means" recited in independent claims 1 and 5.

Petitioner has not articulated adequately a meaningful distinction in terms of relative strengths and weaknesses with respect to application of CMC, instead of Peterson or Ward, with respect to the various claim limitations. Accordingly, we decline to institute an *inter partes* review on

these grounds, which are redundant with the grounds based on Peterson and with the grounds based on Ward. *See Liberty Mutual Ins. Co. v. Progressive Casualty Ins. Co.*, CBM2012-0003 (Paper No. 7) (expanded panel).

D. Conclusion

We conclude that Petitioner has demonstrated a reasonable likelihood of prevailing on the following grounds of unpatentability asserted in the Petition:

Claims 1 and 5 under 35 U.S.C. § 102(b) as anticipated by Peterson;

Claims 2, 4, 6, and 8 under 35 U.S.C. § 103(a) as unpatentable over Peterson and Ferguson;

Claims 3 and 7 under 35 U.S.C. § 103(a) as unpatentable over Peterson, Ferguson, and Ohmae;

Claim 5 under 35 U.S.C. § 103(a) as unpatentable over Peterson and prior art described in the '029 patent;

Claims 6 and 8 under 35 U.S.C. § 103(a) as unpatentable over Peterson, prior art described in the '029 patent, and Ferguson;

Claim 7 under 35 U.S.C. § 103(a) as unpatentable over Peterson, prior art described in the '029 patent, Ferguson, and Ohmae;

Claims 1 and 4 under 35 U.S.C. § 102(b) as anticipated by Ward;

Claims 2 and 6 under 35 U.S.C. § 103(a) as unpatentable over Ward and Ferguson;

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Claims 3 and 7 under 35 U.S.C. § 103(a) as unpatentable over Ward, Ferguson, and Ohmae;

Claims 5 and 8 under 35 U.S.C. § 103(a) as unpatentable over Ward and prior art described in the '029 patent;

Claim 6 under 35 U.S.C. § 103(a) as unpatentable over Ward, prior art described in the '029 patent, and Ferguson; and

Claim 7 under 35 U.S.C. § 103(a) as unpatentable over Ward, prior art described in the '029 patent, Ferguson, and Ohmae.

III. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is granted as to claims 1–8 of the '029 patent;

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(a), *inter partes* review of the '029 patent is hereby instituted commencing on the entry date of this Order, and pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial;

FURTHER ORDERED that the trial is limited to the grounds identified under the heading “Conclusion” above, and trial is not authorized for any other grounds set forth in the petition; and

FURTHER ORDERED that an initial conference call with the Board is scheduled for 3:00PM Eastern Time on February 25, 2014. The parties are directed to the Office Patent Trial Practice Guide, 77 Fed. Reg. at

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48,765–66, for guidance in preparing for the initial conference call, and should come prepared to discuss any proposed changes to the Scheduling Order entered herewith and any motions the parties anticipate filing during the trial.

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