United States District Court,
W.D. Washington, at Seattle.

TRAVIS INDUSTRIES, INC,
Plaintiff.
v.
HEARTH & HOME TECHNOLOGIES, INC., et al,
Defendant.

No. C03-2526P

Oct. 18, 2004.

ORDER ON CLAIM CONSTRUCTION

MARSHA J. PECHMAN**, District Judge.**

This matter comes before the Court on a claim construction hearing wherein the parties requested construction of five claim terms in Plaintiff Travis Industries, Inc.'s ("Travis") United States Patent No. 6,443,726 ("the '726 patent") and its continuation, U.S. Patent No. 6,602,068 ("the ' 068 patent), and three claim terms in Defendants Hearth & Home Technologies, Inc. and HON Industries, Inc.'s (collectively "Hearth") United States Patent No. 4,766,876 ("the '876 patent"). (Dkt. Nos. 50 and 55). Having reviewed the papers and pleadings submitted by the parties, and having heard testimony and oral argument on the issues, the Court hereby issues the following constructions for the disputed claims terms:

-> "burner pan" means "a substantially flat metal plate having a gas inlet aperture, which may or may not have perpendicular perimeter sides."

-> "spacer" means "a device or piece, distinct from the burner body and the burner pan, that holds the burner body a given distance from the burner pan base, but not a gasket."

-> "selected color variations" means "the portion of the color spectrum that simulates a natural wood-burning fire."

-> "recessed underportion" means "a portion of the underside of the burner body that is recessed."

-> "gas flow orifice member" means "a device or obstruction placed in a gas-flow orifice that is positioned between two chamber portions, that effects the volume and rate of gas flow through the orifice."

-> "baffle having heat absorbing and insulating means thereon" means "an object placed in an appliance to change the direction or retard the flow of air, air fuel mixtures, or fuel gases, with the heat absorbing and insulating means on top of the aforesaid object."

-> "combustion air supply means for supplying combustion air to the fuel combustion chamber below the heat absorbing means" is a means-plus-function term in which the *function* is: supplying combustion air to the fuel combustion chamber, and the *corresponding structures* include: 1) a U-shaped channel that is affixed centrally to the bottom wall and the back or rear wall, 2) a back wall opening, 3) a bottom channel affixed to both the front and bottom walls, connected to side channels mounted in the front corners between the front wall and the side walls, connected to a distributor that distributes air downward over the inside of the glass or window, 4) apertures formed in the back wall immediately below the baffle, and 5) an air injection manifold, which can be either a single horizontal piece or a horizontal T-shaped piece, that is mounted below the baffle and forward of the apertures and is attached to air supply conduits.

-> "a second air supply means for permitting flow of air in the fuel combustion chamber and for directing the air in a circular current path" is a means-plus-function term, in which there are dual *functions:* 1) permitting flow of air in the fuel combustion chamber, and 2) directing the air in a circular current path, and the *corresponding structure* is a distributor.

BACKGROUND

This case involves two inventions: Travis' burner assembly for a gas-burning fireplace and Hearth's wood stove.

A. Travis' Burner Assembly for Gas-Burning Fireplace

Travis owns the '726 patent and its continuation the '068 patent, both entitled "Burner Assembly for a Gas-Burning Fireplace." (Travis' Markman Exhibits 1 and 3 respectively). These patents have to do with a gas-burning fire that closely resembles the dynamic flickering and glowing embers of a natural wood-burning fire. More specifically, Travis' invention involves a burner assembly for a gas fireplace or insert. The burner assembly is the portion of the fireplace that produces the flame.

The burner assembly consists of a burner pan, with a fuel gas inlet, and a burner body, usually a molded ceramic top that mimics the shapes of embers, coal and other aspects of a wood-burning fire. The burner pan and burner body are configured in such a way as to create a sealed chamber between the two, into which fuel is inserted and is distributed to various points to ignite and create a flame and other features of a natural wood-burning fire.

B. Hearth's Wood Stove

Hearth owns U.S. Patent No. 4,766,876 ("the '876 patent"), entitled "Wood Stove." (Travis' Markman Exhibit 5). This patent has to do with a wood stove design that minimizes emission releases from a natural wood burning fire to meet federal and state regulatory standards without using a catalytic converter. This invention accomplishes that goal by employing a technique called "secondary combustion."

In this invention, a wood stove is a firebox mounted on a pedestal. Primary combustion occurs when fuel, e.g. wood, is placed in the firebox and burned. Primary combustion releases gas emissions, including unburned hydrocarbon gases, that rise towards the top of the fire box. However, before this gas exits, it is stopped by a baffle, which is a horizontal structure that extends almost all the way across the interior of the firebox and is located in the top portion of the firebox. The hydrocarbon gas emissions from the primary combustion, mixed with heat and air, is then burned under the baffle. This is the secondary combustion. The emissions from this secondary combustion, which are presumably cleaner than the gas emissions from the

primary combustion, then flow around the front edge of the baffle, rise toward the top of the firebox, flow back toward to rear of the box, and then exit through an opening in the top of the box.

ANALYSIS

A. Principles of Claim Construction

In construing claim terms, the Court first considers the intrinsic evidence, which includes 1) the claim language itself, 2) the written specification disclosing the best mode embodiment, and 3) the prosecution history of the patent. Vitrionics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996). Claim construction always begins with the language of the claim. Phonometrics, Inc. v. Northern Telecom Inc., 133 F.3d 1459, 1464 (Fed.Cir.1998).

The claim language defines the invention. Unless the patent expressly states otherwise, claim language is first given its ordinary meaning as viewed by one of ordinary skill in the art. Johnson Worldwide Assocs. Inc. v. Zebco Corp., 175 F.3d 985, 989 (Fed.Cir.1999). The strong presumption in favor of using the ordinary meaning of terms is overcome in two situations: 1) where a patentee is his own lexicographer, giving meaning to terms that differs from their ordinary usage by defining terms in the specification or prosecution history, Vitrionics, 90 F.3d at 1582, or 2) where a claim term "deprives the claim of clarity such that there is no means by which the scope of the claim may be ascertained from the language used." Bell Atlantic Network Servs. Inc. v. Covad Comm'ns Group, Inc., 262 F.3d 1258, 1268 (Fed.Cir.2001) (internal quotations omitted).

The Federal Circuit has made clear that dictionaries, encyclopedias, and treatises are used as aids for understanding the ordinary and customary meaning of claim terms. *Texas Digital Sys., Inc. v. Telegenix, Inc.,* 308 F.2d 1193, 1202 (Fed.Cir.2002). Thus, these sources no longer have the lower status of extrinsic evidence. *Id*. Rather, the Court should determine the ordinary and customary meaning, with the aid of dictionaries and treatises, before consulting the specification and prosecution history. *Id*. at 1204. By doing so, the Court can avoid importing limitations from the specification into the claim terms. However, when there are multiple dictionary definitions, the Court should look to the intrinsic record to identify which of the possible meanings is "most consistent with the use of the words by the inventor." *Id*. at 1203.

For further interpretation of claim language, the Court turns to the specification, which must disclose the best mode embodiment of the invention. The claim language is to be read "in view of" the specification. "The specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." Vitrionics, 90 F.3d at 1582. On the other hand, the Court must not import limitations from the specification. "It is well established that the preferred embodiment does not limit broader claims that are supported by the written description." Toro Co. v. White Consol. Indus. Inc., 199 F.3d 1295, 1301 (Fed.Cir.1999).

The prosecution history may also be used to interpret claim language. Here, limitations may be imported when the patentee re-defined a term or made arguments interpreting claim language during the prosecution process in an effort to get the patent issued. "The prosecution history is considered to determine whether or not there were any express representations made in obtaining the patent regarding the scope and meaning of the claims." Bell Atlantic, 262 F.3d at 1268. However, the prosecution history can limit claim terms only where the applicant "clearly and unambiguously disclaimed or disavowed" a broader interpretation of the claim term. 3M Innovative Properties Co. v. Avery Dennison Corp., 350 F.3d 1365, 1371 (Fed.Cir.2003).

In construing claim terms, the Court must adhere to the doctrine of claim differentiation. "[A] claim term should be construed consistently with its appearance in other places in the same claim or in other claims of the same patent." Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1342 (Fed.Cir.2001). Thus, a claim term used in multiple claims must be construed broadly enough to apply to accommodate all of the uses of the term. Acromed Corp. v. Sofamor Danek Group, Inc., 253 F.3d 1371, 1382 (Fed.Cir.2001). Likewise, the doctrine bars construing a claim in such a way as to render it identical in scope to a different claim term. However, this doctrine should be treated as a guide, not a rigid rule. Bristol-Myers Squibb Co. v. Ben Venue Laboratories, Inc., 246 F .3d 1368, 1376 (Fed.Cir.2001). Lastly, a corollary rule is that "[w]here claims use different terms, those differences are presumed to reflect a difference in the scope of the claims." Forest Laboratories, Inc. v. Abbott Laboratories, 239 F.3d 1305, 1310 (Fed.Cir.2001).

B. Means-Plus-Function Analysis

The claim terms in dispute here include "means-plus-function" claims. The Patent Act, 35 U.S.C. s. 112 para. 6, provides:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

The statute therefore allows an inventor to claim an invention by reference to the performed function without identifying in the claim language the precise structure, material, or acts that would carry out that function. IMS Technology, Inc. v. Haas Automation, Inc., 206 F.3d 1422, 1429-30 (Fed.Cir.2000). Here, the parties agree that two of the eight disputed claim terms are means-plus-function claims.

Proper construction of a means-plus-function limitation requires the court to first identify the *function* recited in the claim language, then to determine what *structures* have been "disclosed in the specification that correspond to the means for performing that function." Epcon Gas Systems, Inc. v. Bauer Compressors, Inc., 279 F.3d 1022, 1032 (Fed.Cir.2002). In determining the function, "[i]t is improper to narrow the scope of the function beyond the claim language. It is equally improper to broaden the scope of the claimed function by ignoring clear limitations in the claim language." Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc., 296 F.3d 1106, 1113 (Fed.Cir.2002) (citation omitted).

In order to be covered by the claim language, a structure disclosed in the specification must be clearly linked or associated with, either in the specification or the prosecution history, the function recited in the claim. *Id*. However, the court cannot "import functional limitations that are not recited in the claim, or structural limitations from the written description that are unnecessary to perform the claimed function." Wenger Manuf., Inc, v. Coating Machinery Sys., Inc., 239 F.3d 1225, 1233 (Fed.Cir.2001).

C. Claim Terms in Travis' '726 and '068 Patents

In this case, Travis is asserting independent claims 1, 13, and 20 of the '726 patent, and independent claims 1, 15, and 23 of the '068 patent.

1. "burner pan"

This term appears in all of the asserted claims in both the '726 and '068 patents. Travis proposes the

following construction: "a substantially flat metal plate having a gas inlet aperture, and which may or may not have perpendicular perimeter sides." Hearth proposes the following construction: "a broad, shallow, open metal container having perpendicular perimeter sides and a base used to receive a gas-air mixture to be burned." The dispute over this claim term comes down to whether the "pan" must include perimeter sides (Hearth's position) or can either include perimeter sides or be totally flat (Travis' position). The Court agrees with Travis' position and therefore construes the term to mean "a substantially flat metal plate having a gas inlet aperture, and which may or may not have perpendicular perimeter sides." Further, the Court finds that this term can be construed based solely on the intrinsic evidence without resorting to extrinsic evidence.

Independent claim 1 of the '726 patent reads, in relevant part:

A burner assembly for burning a fuel gas from a gas source, comprising:

a *burner pan* with a fuel gas inlet aperture therein;

and a burner body having upper and lower portions, the lower portion of the burner body being sealably *connected to the burner pan* forming an interior gas distribution chamber therebetween ....

(The '726 patent, 11:25-31 (emphasis added); *see also* independent claim 13, 12:24-30 (identical language)).

Another portion of independent claim 13 of '726 patent describing the burner body reads "wherein *the burner pan has a base* spaced apart from the burner body and *a plurality of distribution fences projecting from the base* ...." (Id., 12:46-48 (emphasis added)).

Independent claim 20 of the '726 patent reads, in relevant part:

A burner assembly for burning a fuel gas from a gas source, comprising:

a *burner pan* with a base having a fuel gas inlet aperture therein, and *a distribution fence attached to the base of the burner pan, the distribution fence projecting away from the base;*

and a burner body having upper and lower portions, *the burner body being connected to the burner pan* integrally forming an interior gas distribution chamber therebetween ....

(Id., 13:28-37 (emphasis added)).

Independent claim 1 of the '068 patent reads, in relevant part:

A burner assembly for burning a fuel gas from a gas source, comprising:

a *burner pan* with a fuel gas inlet aperture therein;

a spacer extending away from the burner pan;

and a burner body having upper and lower portions, the lower portion of the burner body *extending at least partially into the burner pan* ....

(The '068 patent, 11 :32-38 (emphasis added)).

Independent claim 15 of the'068 patent reads, in relevant part:

A burner assembly for burning a fuel gas from a gas source, comprising:

a *burner pan* with a fuel gas inlet aperture therein, *the burner pan having a base;*

a spacer extending away from *the base of the burner pan;*

a burner body having upper and lower portions, the burner body being coupled to the spacer with the lower portion of the burner body being spaced apart from *the base of the burner pan* by the spacer ....

(Id., 12:40-48 (emphasis added)).

Independent claim 23 of the '068 patent reads, in relevant part:

A burner assembly for burning a fuel gas from a gas source, comprising:

a *burner pan* with a base having a fuel gas inlet aperture therein;

a distribution fence sealably coupled at a bottom portion to *the base of the burner pan,* the *distribution fence projecting away from the base;*

and a burner body having upper and lower portions, *the burner body being spaced apart from the burner pan* integrally forming an interior gas distribution chamber therebetween ....

(Id., 13:31-42 (emphasis added)).

As shown by the above claim language, the burner pan is sometimes referred to as having a base, which arguably implies that it also has perimeter sides, but other times it is not referred to as consisting of a base. None of the claim language quoted above explicitly refers to perimeter sides. At the most, the claim language referring to a "base" of the burner requires that the pan have a base; it does not likewise require that the pan have perimeter sides.

Some of the passages quoted above refer to a "distribution fence" attached to or projecting away from the base of the burner pan. This language, however, does not require construing burner pan as having perimeter sides. The "distribution fence" does not refer to perimeter sides. The specification makes clear that "distribution fences" are *not* "perimeter fences." Both patents' description of figure 20 refer to both perimeter fences and distribution fences. It states "[t]he distribution fences 318 and the perimeter fence 316 provide a sealed area around the combustion air holes." (The '726 patent, 10:60-62; the '068 patent, 10 :65-67). The distribution fences are generally the internal fences that divide the interior gas distribution chamber into sub-chambers. For instance, claim 13 of the '726 patent and claim 3 of the ' 068 patent refer to "the distribution fences dividing the interior gas distribution chamber into separate chamber portions ." (The '726 patent, 12:50-52; the '068 patent, 11 :66-12 :1; *see also* claims 14 and 26 of the ' 726 patent, 12:55-56, 14:18-20, and claims 27-29 of the '068 patent, 14:22-40). There is only one reference in the claim language to perimeter sides, which appears in a dependent claim and therefore does not require construing burner pan

as necessarily always having perimeter sides. (*See* the ' 726 patent, claim 25, the '068 patent, claim 30).

Travis admits that the language in claim 1 of the '068 that the burner body "extends at least partially into the burner pan" does imply a pan that had depth, which further implies a pan that has perimeter sides. Travis contends, however, that this represents only one embodiment of the invention. Other embodiments do not include such a limitation. The Court agrees. None of the other independent claims quoted above include such language. To construe burner pan as requiring perimeter sides would be improperly importing a limitation from one independent claim into a different independent claim. *See* D.M.I., Inc. v. Deere & Co., 755 F.2d 1570, 1574 (Fed.Cir.1985) ("Where some claims are broad and others narrow, the narrow claim limitations cannot be read into the broad"). Hearth's contention that, as a general matter, a term must be construed consistently in all the claims is correct. However, that principle does not mean that the limitation in claim 1 of the '068 patent must be applied to all of the independent claims.

Figure 5 and the specification language describing figure 5 provide further support for this conclusion. The specification states "[a]s best seen in FIG. 5, the burner pan 26 is a substantially flat metal plate having a gas inlet aperture 32 ...." (The '726 patent, 4:17-18; the '068 patent, 4 :21-22). Thus, the specification teaches that a burner pan does not necessarily have perimeter sides. The Court is not persuaded by Hearth's attempt to describe figure 5 as necessarily representing a burner pan with perimeter sides. The Court finds that figure 5 is not necessarily meant to be specific regarding the exact dimensions of the pan in relation to the air holes in the center of the pan. Moreover, the figure is drawn to be viewed at an angle; because it is not clear from the illustration what the exact angle is, it is difficult to determine what the dimensions should be even if the illustration were meant to provide exact dimensions.

Other specification language cited by Hearth does not require a contrary construction. According to Hearth, figures 17-20 show a burner pan with perimeter sides. The specification states:

the burner pan 214 has a shallow pan configuration formed by a base 216 and a plurality of perimeter fences 224 connected to the perimeter of the base 216 and projecting upwardly away from the base.... The illustrated perimeter fences 224 form sidewalls that are integrally connected to the base 216. In alternate embodiments, the perimeter fences 224 can be separate structures securely attached to the base 216....

The burner pan 314 of the illustrated embodiment includes the perimeter fences 316 ....

(The '068 patent, 7 :66-8 :2, 8 :8-11 describing figure 18; 10:52-54 describing figure 20). While this language does suggest that the pan consists of the base together with the perimeter fences, it also contemplates that the fences could be separate structures attached to the base. Moreover, this language represents only one embodiment of the invention.

The prosecution history does not compel a contrary construction. Hearth contends that, in the prosecution proceedings, Travis disavowed a burner pan that had anything other than upwardly extending sides. In other words, Hearth contends that Travis limited its burner pan to a pan with upwardly extending sides. Claim 1 of the '068 patent, as originally filed did not include the "extending into the burner pan" language. Instead it stated "the lower potion of the burner body being sealably connected to the burner pan forming an interior gas distribution chamber ...." (Travis Markman Exhibit 4 (hereinafter "Ex. 4") at 101). According to Hearth, this allowed for a burner pan with sides extending either up or down. The claim was rejected as anticipated by the prior art in the "Shimek '743 patent," which patented a portable gas burner. Hearth asserts that the Shimek '743 patent claimed a flat plate or base with downward leg extension. (Zeuli Decl., Ex. K

(hereinafter "Ex. K"), figure 4 and 3:54-58). When Travis amended the claim language to have its invention be patentable over the Shimek '743 patent, Travis inserted the "extending ... into the burner pan" language. (Ex. 4 at 101). The remarks accompanying this amendment stated that this claim was amended:

to clarify that the burner assembly includes a spacer extending away from the burner pan, and the burner body has a lower portion extending at least partially into the burner pan. The burner body's lower portion is sealably connected to the spacer and is supported apart from the burner pan by the spacer forming an interior gas distribution chamber between the burner pan and the burner body. Shimek '743 does not disclose, teach, or suggest a burner assembly having a burner pan, a spacer extending away from the burner pan, *and* a burner body with the lower portion as recited in the claim 1 as amended.

(Ex. 4 at 97 (emphasis added)).

Amending claim 1 to include the "extending into the burner pan" language cannot be said to constitute a clear and unambiguous disavowal of a pan without perimeter sides. Notably, Travis did not insert this same language into the independent claims 15 or 23 of the '068 patent. Further, Travis did not state that its burner pan was necessarily different than the burner base or plate in Shimek '743. Nothing in the prosecution proceedings specifically described the burner pan. Rather, Travis stated that Shimek '743 did not contain the combination of elements that the invention in the '068 patent contained, namely a burner assembly with 1) a burner pan, 2) a spacer extending away from the burner pan, and 3) a burner body with a lower portion that extended into the burner pan, among other aspects of the burner body. The final "and" in the quotation above supports this conclusion. Hearth's contention that Travis distinguished its invention from Shimek '743 because Shimek did not contain any of these elements would make sense only if the final "and" were instead an "or." In short, despite Hearth's contention otherwise, Travis did not make any explicit statement in the prosecution proceedings that it was limiting its burner pan to a pan with upwardly extending perimeter sides.

2. "spacer"

This claim term appears in claims 1 and 15 in the '068 patent (it does not appear in the '726 patent). Travis proposes the following construction: "structure(s) that space(s) the burner pan apart from the burner body to form a gas distribution chamber." It became clear at oral argument that under Travis' construction, a "spacer" could be either integrated into the burner body or burner pan, a fence, a gasket, or a gasket combined with either of the first two. Hearth proposes the following construction: "a device or piece, distinct from the burner body and burner pan, that holds the burner body a given distance from the burner pan base, but not a gasket or seal." The heart of the parties' dispute is whether the spacer is considered distinct 1) from the burner pan and burner body, and 2) from a gasket or seal (Hearth's position), or silent as to both of these particular questions (Travis' position). Based on the intrinsic evidence, the Court agrees with Hearth's proposed construction and therefore construes the term "spacer" to mean "a device or piece, distinct from the burner body and the burner pan, that holds the burner body a given distance from the burner pan base, but not a gasket." The parties should note that this construction allows the gasket to be a component of the spacer; what it does is prohibits the spacer from being only the gasket.

In the '068 patent, the term appears in claim 1 as follows:

a burner assembly for burning a fuel gas from a gas source, comprising:

a burner pan ...;

a *spacer* extending away from the burner pan;

a burner body[,] ... the lower portion of the burner body being sealably connected to the *spacer* and being supported apart from the burner pan by the *spacer* forming an interior gas distribution chamber between the burner pan and the burner body ....

(The '068 patent, 11 :38-42 (emphasis added)).

Claim 15 has similar language:

a burner assembly ... comprising;

a burner pan[,] ... the burner pan having a base;

a *spacer* extending away from the base of the burner pan;

a burner body[,] ... the burner body being coupled to the *spacer* with the lower portion of the burner body being spaced apart from the base of the burner pan by the *spacer* to form an interior gas distribution chamber therebetween ....

(Id., 12:46-49 (emphasis added)).

Lastly, claim 3, which is dependent on claim 1, reads in part: "The burner assembly of claim 1 wherein the burner pan includes a base spaced apart from the burner body and *the spacer is a distribution fence projecting from the base* ...." (The '068 patent, 11 :62-64 (emphasis added)).

The ordinary and plain meaning of the term "spacer" supports the Court's construction. "Spacer" is defined as "a device or piece for holding two members at a given distance from each other." (Zeuli Decl., Ex. B-1 (Merriam-Webster's, 3d ed.1981)). FN1 Because the term is not defined anywhere else in the ' 068 patent such that it would have a different meaning from its ordinary and plain dictionary meaning, the dictionary definition has significant weight. Travis maintains that this definition does not specify whether the spacer is part of any other structure. While that is technically true, the Court concludes that it is reasonable to infer from this definition that the device or piece holding the two members is distinct from those two members.

FN1. In the joint claim chart, Travis cites a definition for "space," but not for "spacer."

The claim language further supports the Court's construction. At its simplest, claims 1 and 15 refer to three distinct components of the burner assembly: 1) burner pan, 2) spacer, and 3) burner body. This plain language implies that the spacer is a distinct piece from the burner body and/or burner pan. Further, the claims state that the spacer connects to or is coupled with the body, extends away from the pan, and holds the pan and the body apart from each other. Connecting or coupling two things (i.e. the spacer and the burner body) unequivocally connotes two distinct objects. Travis contends that "extending away from" does not necessarily require two distinct structures; rather, it refers to a configuration. However, even if "extending away from the burner pan" describes only a configuration, the claim language makes clear that

the spacer keeps the burner body apart from the burner pan. If the spacer could be considered part of the burner pan, then this language would not make any sense because the burner pan, of which the spacer is a part, would directly touch the burner body. This would contradict the plain language of the claim. Therefore, the spacer cannot be integrated into the body or pan. However, the spacer can be a fence. Claim 3 makes clear that the spacer can be a distribution fence.

The prosecution history neither compels nor prohibits this construction. Claims 1 and 15 of the '068 patent, as originally filed, did not include this term. (Ex. 4 at 101-02 (claim 15 was originally number as claim 16)). As discussed above, these claims were rejected as anticipated by the prior art in the Shimek '743 patent. When Travis amended the claim language to make it patentable over the Shimek '743 patent, Travis inserted the spacer language quoted above. (Id.). The accompanying remarks stated that this claim was amended:

to clarify that the burner body includes a spacer extending away from the burner pan .... The burner body's lower portion is sealably connected to the spacer and is supported apart from the burner pan by the spacer forming an interior gas distribution chamber between the burner pan and the burner body. Shimek '743 does not disclose, teach, or suggest a burner assembly having a burner pan, a spacer extending away from the burner pan, and a burner body with the lower portion as recited in the claim 1 as amended. Shimek '743 is silent with respect to a spacer. Further, the underside of [the] ceramic-fiber top of Shimek '743 is highly contoured so that a spacer is unnecessary. Accordingly, Shimek '743 teaches away from the spacer.

(Id. at 97).

Based on this language, Hearth argues that Travis told the patent examiner that Shimek '743 did not have a spacer and that the "legs" on the Shimek '743 that extended downward from the burner body to the base or plate, thereby forming a gas chamber between the body and plate, were not spacers. Hearth asserts that because Travis distinguished its spacer from Shimek '743's "legs" in this way, Travis cannot now argue that the spacer could be attached to the burner body since that would effectively negate the distinction it made during the prosecution history. Travis counters that it did not disclaim a spacer that is part of the body or pan. Contrary to Heath's contention, Travis maintains that it did not tell the patent examiner that Shimek '743 did not have a spacer or that the legs in Shimek '743 were used in place of a spacer. Therefore, according to Travis, its spacer may or may not be attached to the body or pan.

Hearth's argument is unpersuasive because the premise is faulty. Hearth refers to "legs" on the burner body. However, based on this Court's review of the Shimek '743 patent, the specification does not identify legs on the burner body. The specification refers only to the burner body, which is number 12 in the specification figures, and does not identify legs as a separate part of that burner body. Because there is not a clear identification of burner body legs in Shimek '743, Travis cannot be said to have clearly and unambiguously distinguished its spacer from the "legs" on the Shimek '743 burner body. Similarly, the statement that the Shimek '743 is silent with respect to a spacer does not constitute a clear and unambiguous disavowal of a spacer that is part of the burner body or pan. At the same time however, even if the Shimek '743 did not explicitly identify the downward extensions on the burner body as "legs," the fact that they were represented in the drawing and served to space the underside of the burner body apart from the burner base or plate, together with the fact that Travis maintained that the Shimek '743 was silent with respect to a spacer, imply that Travis was disclaiming a spacer that was part of the burner body. However, it is doubtful that this is a sufficiently clear and explicit disclaimer as required by *3M Innovative Properties Co.*.

Similarly, the statement in the prosecution history that Shimek '743 did not disclose a spacer must be read in

the full context of the sentence in which the statement appears. As discussed above, this full statement asserts that the combination of elements was not present in the Shimek '743. Therefore, this statement cannot be interpreted as a disclaimer of a spacer that is part of a burner body or pan.

As to whether the spacer is distinct from a gasket or seal, the doctrine of claim differentiation favors construing the term "spacer" as not a gasket or seal. However, this does not mean that a gasket or seal could not be a part of the "spacer." Claims 10 and 20 of the '068 patent (which are dependent on claims 1 and 15 respectively), both state "[t]he burner assembly of claim 1 [or claim 15] further comprising a gasket sandwiched between the burner pan and the burner body." (The '068 patent, 12:26-28 and 13:22-24). Both claim 1 and claim 15 require a spacer. Therefore, if a spacer could be the exact same thing as a gasket, as Travis contends, then the gasket required by dependent claim 10 and claim 20 would be superfluous and redundant. *See* Comark Communications, Inc. v. Harris Corp., 156 F.3d 1182, 1187 (Fed.Cir.1998) ("There is presumed to be a difference in meaning and scope when different words or phrases are used in separate claims. To the extent that the absence of such difference in meaning and scope would make a claim superfluous, the doctrine of claim differentiation states the presumption that the difference between claims is significant.") (quotations and citation omitted).

At oral argument, Travis argued that the gasket requirement of claims 10 and 20 is not redundant because either there would be two gaskets (i.e. the spacer, which could be a gasket, and the gasket referred to in claims 10 and 20) or the spacer is a fence or integrated into the burner body or burner pan and claims 10 and 20 merely add a gasket such that the spacer is the fence or integrated into the burner body or burner pan *plus* the gasket. The first argument does not make much sense and is contrary to the principle that different claim terms are presumed to have different meanings. The second argument, however, is persuasive. While the spacer cannot be the exact same thing as a gasket, the spacer can be a fence plus a gasket. Nothing in the specification limits "spacer" to only the fence. Indeed, the fact that both "spacer" and "fence" are used in the claims disfavors construing these terms are absolutely interchangeable.

The prosecution history does not include any reference to a gasket or seal. Shimek '743 included a "silicon adhesive," assigned number 25 in the figures, to seal the burner body to the burner base or plate. Therefore, nothing in the prosecution history speaks to this particular question.

3. "selected color variations"

This claim term appears in all of the asserted claims in both the '726 and ' 068 patents. Travis proposes the following construction: "colors of a natural fire, including shades of orange ." Hearth contends that this term is indefinite and not capable of construction. Based on the intrinsic evidence, the Court construes "selected color variations" to mean "the portion of the color spectrum that simulates a natural wood-burning fire."

Claims 1 and 13 of the '726 patent and claims 1 and 15 of the '068 patent all read, in part: "material that glows at *selected color variations* in the simulated coal members to simulate a burning and glowing coal ember bed in the base of a fire when the fuel gas is ignited...." (The '726 patent, 11:48-51. 12:42-45; the '068 patent, 11 :53-57, 12 :67-13 :3 (emphasis added)). Claim 20 of the '726 patent and claim 23 of the '068 patent contain similar language: "material that glows at *selected color variations* when the fuel gas is ignited ...." (The '726 patent, 13:52-53; the '068 patent, 14 :9-11 (emphasis added)).

Hearth argues that this term is indefinite because the term is not found in any dictionaries. However, each of these individual words have ordinary and plain meaning defined in dictionaries. The combination is not so

unusual as to render the term incomprehensible.

The surrounding claim language makes clear that selected color variations refers to the various colors that simulate a burning a glowing coal ember bed in the base of a fire. While it is true that fires emit a wide range of colors, the term itself is not so ambiguous that one skilled in the art cannot understand that the term refers to a range and combination of colors that mimic a natural fire.

The specification provides further support. It states "the ceramic-based ember members glow an orange-ish color very similar to the color of burning embers in a natural wood-burning fire," (the '726 patent, 6:21-24; the '068 patent, 6 :25-28); "distribute the fuel gas at selected rates and volumes over the burner assembly's upper surface 17 and around the simulated logs 16 to provide a flame having a generally orange coloration that flickers and 'dances' around the simulated logs similar to the flames of a natural wood-burning fire," (the '726 patent, 3:57-61; the '068 patent, 3 :61-65). This language makes clear that the "selected color variations" are the range of colors that simulate a natural wood burning fire.

Based on this specification language, Travis seeks to include in the construction a reference to "shades of orange." The Court is not persuaded that such language is appropriate. First, the specification's use of the term "orange-ish" is not persuasive because it is not a word found in the dictionary. Second, when asked at oral argument if Travis would accept a construction that referred to the precise meaning of orange- "wavelengths of approximately 590 to 630 nanometers" (The American Heritage Dictionary, 4th ed. 2000)- Travis responded that it was not seeking such a construction. Third, the colors of a natural wood-burning fire include shades of orange but also include other colors. Therefore, the Court sees no reason why the construction should specify shades of orange when it does not refer to other specific colors.

Lastly, the Court finds that this term is not so ambiguous that it is not capable of construction. As shown above, the surrounding claim language as well as the specification provide sufficient context to give meaning to this claim term.

4. "recessed underportion"

This claim term appears in the '068 patent in claim 15 (it does not appear in the '726 patent). The portion of claim 15 describing the burner body states:

the lower portion of the burner body having a substantially flat undersurface portion extending away from the spacer generally parallel to the base of the burner pan, the lower portion having a *recessed underportion* spaced apart from the burner pan's base and recessed from the burner body's flat undersurface portion, the *recessed underportion* defining a portion of the gas distribution chamber ....

(The '068 patent, 12 :51-59 (emphasis added)).

Travis proposes that the term be construed to mean "a portion of the underside of the burner body that is recessed." Hearth proposes that it be construed to mean "a channel in the lower portion of the burner body's flat undersurface portion that receives a spacer." As these two proposals reflect, the parties dispute centers on whether "recessed underportion" refers to the gas distribution chamber formed by a hollowed out area on the underside of the burner body (Travis' position), or the channels that are on the perimeter of the gas distribution chamber and that are recessed into the undersurface than the burner body, which the spacers fit into (Hearth's position). Based on the intrinsic evidence, the Court agrees with Travis and construes

"recessed underportion" to mean "a portion of the underside of the burner body that is recessed."

The ordinary and plain meaning of this claim term supports the Court's construction. "Recess" is defined as "an indentation or small hollow." (Rossman Decl., Ex. D (The American Heritage Dictionary, 3d ed.2000)).

The term "recessed underportion" does not appear anywhere in the specification. In some of the figures (*see* figures 6, 15, and 16), there is an H-shaped hollowed out area on the underside of the burner body. This area is described as an "interior chamber." (*See* the '068 patent, 4 :9-11; 4 :39-40; 7 :1-3). In other figures (*see* figures 18 and 20), the burner pan has a perimeter fence near the edges of the burner pan, as well as internal fences dividing the area into various sub-areas. The burner body has "channels," sometimes called "shallow channels" or "fence channels," into which these fences are inserted when the burner body is placed on top of the burner pan. (*See* Id., 9:19-35; 10 :3-28; 10 :37-39; 10 :48-50). Hearth maintains that "recessed underportion" is only these channels and does not include the H-shaped hollowed-out area. In contrast, Travis maintains that "recessed underportion" can be either the H-shaped hollowed-out area *or* the channels into which the spacers fit.

While the specification language describing the H-shaped hollowed area in figures 6, 15, and 16 does not use the term recessed underportion to describe it, likewise, the specification language describing the channel into which the spacer or fence fits in figures 18 and 20 does not use the term recessed underportion to describe it. Therefore, it is illogical to argue that, based on the specification language alone, this term can apply to only one but not the other.

The prosecution history does not compel a contrary construction. During prosecution of the '068 patent, Travis added the term "recessed underportion" to claim 15 after the provisional application was rejected as anticipated by prior art, including the Shimek '743 patent. (Ex. 4 at 102). The Shimek '743 patent included a figure representing an "H-shaped area recessed into the ceramic fiber top," which is similar to the burner body in Travis' invention, and which "provides ... [a] hollow manifold [an area enclosed by the bottom and top to hold the gas-air mixture]." (Ex. K, figure 9, 4:61-64; *see also* 2:59-61). The remarks accompanying Travis' amended claim 15 stated that:

Shimek '743 does not teach each and every feature of claim 16 [later changed to 15] as amended.... Shimek '743 is also silent in connection with a lower portion of a burner body having a substantially flat undersurface portion substantially parallel to the base of the burner pan *and* having a recessed underportion spaced apart from the burner pan's base and recessed from the burner body's flat undersuface portion to define a portion of a gas distribution chamber.

(Ex. 4 at 98 (emphasis added)). In this remark, Travis did not state that Shimek '743 lacked a recessed underportion; rather, Travis remarked that Shimek lacked the combination of a substantially flat surface with a recessed underportion.

5. "gas flow orifice member"

This claim term appears in claim 1 of the '726 patent as follows:

the interior gas distribution chamber having a *gas flow orifice member* positioned between a first chamber portion and a second chamber portion to selectively control the flow of the fuel gas from the first chamber portion to the second chamber portion.

(The '726 patent, 11:33-38 (emphasis added)). The term does not appear in the '068 patent.

Travis proposes construing this term to mean "structure to control distribution of fuel gas." Hearth proposes construing this term to mean "a device or obstruction placed in a gas-flow orifice that is positioned between two chamber portions, that effects the volume and rate of gas flow through the orifice." The parties seem to agree that "member" means a device or structure that controls the distribution of fuel gas. The heart of this dispute is that Hearth wants the construction to specify where this device or structure is located and Travis does not want to include such a limitation. Based on the intrinsic evidence, the Court agrees with Hearth and construes the term to mean "a device or obstruction placed in a gas-flow orifice that is positioned between two chamber portions, that effects the volume and rate of gas flow through the orifice."

The claim language specifies the location of the gas flow orifice member; it explicitly refers to the orifice member being between two chambers. To ignore the claim language surrounding this term, and construe the term without any reference to its location, would impermissibly broaden the scope of this term. This clear language belies Travis' argument that including the location in the construction would incorrectly import a limitation from the specification into the claim.

Language in the specification referring to the orifice member also includes its location and describes that location as being between two chambers. In addition, it teaches that the member controls the distribution of the fuel gas by effecting the volume and rate of gas flow. The specification states:

The burner body 78 also includes an *orifice member 94* in the intermediate chamber portion 93 so as to control distribution of the fuel gas from the front chamber portion 89 to the rear chamber portion 91. Accordingly, the *orifice member 94* effects the volume and rate of gas flow through the selected burner apertures ....

(The '726 patent, 7:20-25 (emphasis added)). It also states:

A second chamber portion is connected to the first chamber portion by a narrowed *gas flow orifice* portion positioned between the first and second chamber portions. The orifice portion is selectively sized to control the flow of fuel gas from the first chamber portion to the second chamber portion.

(Id., 1:59-61 (emphasis added)).

At the claim construction hearing, Travis argued that the orifice need not be positioned between two chambers, but could be an opening in a single chamber. According to Travis, the ordinary and plan meaning of the word "orifice," which means an opening, does not incorporate a location of the orifice. However, as shown above, the surrounding claim language specifies that the member, which is in the orifice, is between two chambers. Every reference to the orifice member in the specification further bolsters this conclusion.

D. Claim Terms in Hearth's '826 Patent

Hearth is asserting independent claims 1, 20, and 21, as well as dependent claims 2, 7, 11-13, and 15-19.

1. "baffle having heat absorbing and insulating means thereon"

This claim term appears in claim 1 as follows:

baffle having heat absorbing and insulating means thereon in heat exchanging relationship with lower combustion chamber and the upper exhaust heat exchanging chamber to minimize a loss of heat through the baffle and to maximize the burning temperature in the fuel combustion chamber.

(The '876 patent, 8 :19-24 (emphasis added)).

Hearth proposes the following construction: "an object, that includes firebrick or other heat absorber and insulator, placed in an appliance to change the direction or retard the flow of air, air fuel mixtures, or fuel gases." Travis proposes the following construction: "heat absorbing and insulating means must be on the baffle." The parties agree on the definition of "baffle" and "heat absorbing and insulating means." They dispute whether the "heat absorbing and insulating means" has to be on top of the baffle (Travis' position), or whether it can be either on top of the baffle or a part of the baffle (Hearth's position). Based on the intrinsic evidence, the Court adopts Hearth's more precise language regarding the baffle, but concludes that the plain meaning of the claim language limits the heat absorbing and insulating means to being on the top of the baffle. Therefore, the Court construes "baffle having heat absorbing and insulating means thereon" to mean "an object placed in an appliance to change the direction or retard the flow of air, air fuel mixtures, or fuel gases, with the heat absorbing and insulating means on top of the aforesaid object."

The National Fire Protection Association defines "baffle" as "an object in an appliance to change the direction or retard the flow or air, air-fuel mixtures, and fuel gases." (Zeuli Decl., Ex. F-1.) The parties agree that this is the proper definition for baffle as used in this claim.

The claim language explicitly references the location of the heat absorbing and insulating means by using the word "thereon." "Thereon" is defined as "on or upon this, that or it." (Rossman Decl., Ex. D (American Heritage College Dictionary, 3d ed.1997)). Thus, based on the ordinary and plain meaning of "thereon," the heat absorbing and insulating means must be located on top of the baffle.

Hearth attempts to overcome this conclusion by pointing to language in the specification that clearly contemplates two possible embodiments, where the heat absorbing and insulating means is either on top of or a part of the baffle. The specification states "[b]affle 68 includes baffle insulation and heat absorber 85 on the baffle 68 *or forming part thereof* for insulating the baffle ...." (The '876 patent, 4:24-25 (emphasis added)). Hearth argues that despite the ordinary meaning of "thereon" used in the claim, which would narrow the definition, it would be error to adopt that meaning over the language used in the written description. However, the case Hearth cites, *Jack Guttman, Inc. v. Kopykake Enters, Inc.,* holds only that the specification may broaden the meaning of a claim term beyond its ordinary and plain meaning when the patentee chooses to be his or lexicographer "by clearly setting forth an explicit definition for a claim term that could differ in scope from that which would be afforded by its ordinary meaning." 302 F.3d 1352, 1360 (Fed.Cir.2002).

Here, Hearth has not pointed to anywhere in the specification that the patentee used the word "thereon" to mean either "thereon" or "a part thereof." Thus, even though the specification includes language that allows for the alternative configuration Hearth proposes, the patentee limited its claim by using a word, "thereon," whose ordinary and plain meaning limited it to one configuration. *See* Johnson & Johnston Associates Inc. v. R.E. Service Co., Inc., 285 F.3d 1046, 1052 (Fed.Cir.2002) ("the claim requirement presupposes that a patent applicant defines his invention in the claims, not in the specification. After all, the claims, not the specification, provide the measure of the patentee's right to exclude."); Novo Nordisk of North America,

Inc. v. Genentech, Inc., 77 F.3d 1364, 1369 (Fed.Cir.1996) ("While claims are to be interpreted in light of the specification, all that appears in the specification is not necessarily within the scope of the claims and thus entitled to protection. What is not claimed, even though disclosed as part of the 'invention,' cannot be enjoined.")

This construction does not violate the doctrine of claim differentiation. Claim 11, which is dependent on claim 1, states

[t]he wood stove as defined in claim 1 wherein the base, rear and side walls have fire brick thereon to protect said walls and wherein fire brick is mounted on an upper side of the baffle to minimize the heat loss through the baffle ....

(The '876 patent, 9:25-29). Hearth argues that, because this claim adds the limitation that the fire brick be mounted on the baffle, claim 1 cannot be read as requiring this same configuration because it would render claim 11 redundant. However, Travis offers the equally reasonable explanation that claim 11 does not only require that the fire brick be mounted on top of the baffle. Rather, it requires that the heat absorbing and insulating means be fire brick and that the sides of the firebox have fire brick on them. Because Travis' interpretation is a reasonable one, nothing about the language in claim 11 bars construing this term to require that the heat absorbing and insulating means be located on top of the baffle. Moreover, "[t]he doctrine of claim differentiation cannot be used to overcome the plain language of the claims themselves." Mycogen Plant Science v. Monsanto Co., 243 F.3d 1316, 1329 (Fed.Cir.2001).

While the prosecution history does not compel this particular construction, it does not prohibit it or compel a contrary construction. According to Hearth, the examination was not focused on the location or configuration of the heat absorbing and insulating means, but rather on prior art that had insulating means but no heat absorbing means. The remarks accompanying the amendments stated

It was pointed out that the thermal means shown in the Chamberlain reference and in the Carver reference [prior art] is provided only for the purpose of insulating (preventing heat transfer). The applicants' heat absorbing and insulating means, however, provides an additional function of heat storage along with an insulation capacity.

(Zeuli Decl., Ex. M-6 at 13). Hearth maintains that it overcame this prior art by adding the heat absorbing means. In fact, Hearth argues that the prior art had insulating means located on top of the baffle, and therefore it would not have made sense to add the requirement that the heat absorbing and insulating means be on top of the baffle as a way to overcome the prior art. Thus, Hearth argues, the prosecution history narrowed the claim only by requiring that it include heat absorbing means. Even if all of Hearth's assertions are true, that only means that the prosecution history does not require Travis' construction. Importantly, however, the prosecution history does not bar it either.

2. "combustion air supply means for supplying combustion air to the fuel combustion chamber below the heat absorbing means"

The parties agree that this is a means-plus-function claim. Therefore, the only task for the Court to do in claim construction analysis is to identify the function as defined by the claim language, and the corresponding structure, material or acts disclosed in the specification.

This term appears in claims 20 and 21. The relevant portion of claim 20, which sets out the elements of a wood stove that does not include a front wall (or door), reads:

combustion air supply means for supplying combustion air to the fuel combustion chamber below the heat absorbing means, including a primary combustion air supply to support primary combustion of fuel adjacent to the base wall, *and to support secondary combustion* of unburned fuel ....

(The '876 patent, 10 :20-36 (emphasis added)). The relevant portion of the claim 21, which sets out the elements of a wood stove that includes a front wall (or door), reads:

combustion air supply means for supplying combustion air to the fuel combustion chamber below the heat absorbing means, including (a) a primary combustion air supply to support primary combustion of fuel adjacent the base wall, *and (b) first secondary combustion air supply, (c) a second supply of secondary air separate from the first secondary combustion air supply and (d) third undampered secondary combustion air supply separate from the first and second supplies;* wherein all three secondary combustion air supplies support secondary combustion of unburned fuel....

(*Id.,* 10:60-12:7 (emphasis added)).

Travis asserts that the construction of the term should be consistent for both claims. In contrast, Hearth asserts that this term as used in claim 20 is different than as used in claim 21 and would therefore be construed differently; Hearth seeks construction of the term only as it appears in claim 20. This disagreement goes to the heart of the parties' dispute over this term, as discussed below.

The parties disagree as to the function. Travis contends that the function is "supplying combustion air to the fuel combustion chamber." Hearth contends that there are two distinct functions: 1) "supporting primary combustion of fuel" and 2) "supporting secondary combustion of unburned fuel." FN2 In essence, the parties dispute the significance of the language in claim 20 that begins with and follows the word "including." Under Hearth's proposed construction, this language further limits the function by identifying two specific functions: supporting primary combustion of fuel and supporting secondary combustion of unburned fuel. In contrast, Travis argues that the reference to primary and secondary combustion is a structural limitation, not a functional limitation. The Court agrees with Travis. The claim reads "*including a primary combustion air supply* to support primary combustion of fuel [,] ... and to support secondary combustion of unburned fuel ...." The "primary combustion air supply" refers to a structure, not a function. While that structure supports primary combustion and secondary combustion, which are functions, it cannot change the function recited in the claim term at issue. FN3 Therefore, the Court concludes that the function of this means-plus-function term is "supplying combustion air to the fuel combustion chamber."

FN2. Hearth further asserts that the claim term as used in claim 21 recites four different functions, and therefore the construction for the term as it appears in claim 21 would necessarily differ from its construction in claim 20.

FN3. In contrast, if the claim read "combustion air supply means for supplying combustion air to the fuel combustion chamber below the heat absorbing means to support primary combustion of fuel ... and to support secondary combustion of unburned fuel ...." without inserting the reference to the primary combustion air supply structure, then there might be the two functions to which Hearth refers.

The parties also disagree as to the corresponding structure. The specification must clearly link or associate the structure to the function. Because the function here is "supplying combustion air to the fuel combustion chamber," the corresponding structure is that which is *necessary* to perform the general function of supplying combustion air to the fuel combustion chamber. Asyst Technologies, Inc. v. Empack, Inc., 268 F.3d 1364, 1369-70 (Fed.Cir.2001). At the same time, "corresponding structure must include *all* structure that actually performs the recited function." Cardiac Pacemakers, 296 F.3d at 1119 (emphasis added) (citing *Asyst*). Structures that do not actually perform the function are not corresponding structures. Asyst 268 F.3d at 1370. Likewise, structures that merely enable other structures to perform the function, such as an outlet that enables a toaster, are not corresponding structures. Id. at 1371. In *Asyst,* one means-plus-function claim recited a function of "receiving and processing digital information communicated with said respective second two-way communication means." *Id*. at 1370. The court concluded that a "communication line" that connected a local processor and the communication means was not a corresponding structure because the communication line merely enabled the local processor to perform the function of receiving and processing digital information; the communication line did not itself perform this function. The written description identified the local processor as performing various functions, each of which received and processed digital information. The communication line was not referred to anywhere in the description of those functions. Therefore, the specification did not clearly link the communication line to the claimed function. *Id*. at 1370-71. Merely enabling the local processor to perform the recited function, as the communication line did, was not sufficient to make it a corresponding structure. Thus, the court made a clear distinction between actually performing the recited function versus enabling the pertinent structure to perform the recited function. *Id*. In contrast, in a different means-plus-function claim where the function included "transmitting information related to the processing," the *Asyst* court concluded that the corresponding structure was the local processor and the communication means, and therefore also included the communication line connecting the two. *Id*. at 1372. The communication line did not merely enable the transmission of information, but actually performed that function and therefore was included as a corresponding structure.

Here, any structure that actually performs the function of supplying air to the fuel combustion chamber and which the specification clearly links to supplying air is the corresponding structure. However, the language in claim 20, beginning with the phrase "including a primary combustion air supply" that supports both primary and secondary combustion, indicates that the corresponding structure must be one that supplies air for both primary combustion and secondary combustion.FN4

FN4. For this reason, this construction applies only to claim 20.

The specification links the following structures to this function:

The stove 10 further includes a *primary combustion air supply means 89* for providing air for primary combustion of the wood fuel. The air supply means 89 includes a U-shaped channel 90 that is affixed centrally to the bottom wall 26 and the back or rear wall 30.

(*Id*., 4:40-44 (emphasis added)).

"The *air supply means 89* includes a back wall opening 100 formed in the back wall ...."

(*Id*., 4:59-61 (emphasis added)).

The wood stove 10 has a *secondary combustion air supply means 52* associated with the front wall for supplying air into the interior of the firebox 12. The air supply means 52 includes a bottom channel 54 affixed to the front wall and the bottom wall as illustrated in FIGS. 2, 5 and 6. Side channels 55 and 56 are mounted in the front corners between the front wall and the side walls for providing air conduits along the front side corners of the firebox that extend upward to a distributor 57 that extends horizontally over the front fuel loading opening 36 for distributing preheated air in a thin laminar current downward over the inside of the glass or window 45 for washing the window and to keep the window clear.

(*Id*., 3:12-25 (emphasis added)).

The stove 10 further includes an *air supply means 105* formed in the upper portion of the back section 99 with apertures 106 formed in the back wall 31 immediately below the baffle 68 for directing preheated air into the fuel combustion chamber 78 immediately below the baffle 68 to assist in supporting combustion of unburned hydrocarbon gases that are emitted from the fuel. Such combustion of unburned combustion gases is generally referred to as "secondary combustion."

(*Id*., 5:1-9 (emphasis added)).

The stove 10 further includes a *secondary combustion air supply means 108* (FIG.8) that preferably includes an air injection manifold 110 that is mounted within the fuel combustion chamber 78 immediately below the baffle 68 and immediately forward of the apertures 106 for directing a supply of super heated air into the fuel combustion chamber to support combustion of unburned hydrocarbon gases emitted from the fuel.

(*Id*., 5:12-20 (emphasis added)).

The *secondary combustion air supply means 108* further includes air supply conduits 112a and 112b that ... are exposed to the outside for drawing air through the inlets and up the supply conduits 112a and 112b to the air injection manifold 110.

(*Id*., 5:23-32 (emphasis added)).

In an alternate embodiment illustrated in FIG. 8, the air injection manifold 110 additionally includes a manifold projection 120 so that the manifold is "T" shaped ....

(*Id*., 5:42-44).

Based on the quoted language, the structures that supply air for primary combustion are: 1) a U-shaped channel that is affixed centrally to the bottom wall and the back or rear wall, and; 2) a back wall opening. Both of these structures are illustrated in figure 2, are described in the same paragraph, and are linked to the air supply means that is numbered 89 in the specification. There is no indication in the specification that these are alternative air supplies. Rather, the specification suggestions that both air supplies are present to support primary combustion. Therefore, both are corresponding structures to support primary combustion.

Again, based on the quoted language above, the structures that supply air for secondary combustion are: 1) a bottom channel affixed to both the front and bottom walls, connected to side channels mounted in the front

corners between the front wall and the side walls, connected to a distributor, 2) apertures formed in the back wall immediately below the baffle, and 3) an air injection manifold, which can be either a single horizontal piece or a horizontal T-shaped piece, that is mounted below the baffle and forward of the apertures and is attached to air supply conduits.

At the hearing, Hearth argued that the distributor air supply means supported primary combustion. While this seems reasonable since the air appears to enter at the bottom of the firebox where primary combustion occurs, the specification makes clear that this structure supports secondary combustion. In the quoted language above, it specifically identifies this as "secondary combustion air supply means." Later, it states "[t]he air supply means 52 supports secondary combustion of the fuel from the front." (*Id.,* 4:67-68). Additionally, Hearth maintained at the hearing that the distributor alone was the air supply and it was irrelevant how the air got into the distributor. However, as shown by the quoted language above, the specification clearly specifies that the air supply means includes the bottom and side channels, which are connected to the distributor. These channels are necessary to perform the function of supplying air. They do not merely enable the distributor to insert the air into the firebox, but are a necessary part of the structure to supply air through the front of the firebox. Similarly, the air supply conduits attached to the air injection manifold are necessary to supply air and are therefore part of the corresponding structure.

3. "a second air supply means for permitting flow of air in the fuel combustion chamber and for directing the air in a circular current path"

The parties agree that this is a means-plus-function claim. Again, the only task for the Court to do in claim construction analysis is to identify the function as defined by the claim language, and the corresponding structure, material or acts disclosed in the specification.

The term appears in claim 1 as follows:

a second air supply means for permitting flow of air into the fuel combustion chamber and for directing the air in a circular current path, first in a downward path along the inside of the front wall, second in a rearward path along the base wall to wash the fuel from the front to support combustion of the fuel, third in an upward exhaust path, fourth in a forward exhaust path along a lower surface of the baffle, and fifth in a path upward over the front edge of the baffle and rearward through the exhaust chamber to the exhaust opening

(The '876 patent, 8 :1-3 (emphasis added)).

This term presents two functions: 1) permitting flow of air in the fuel combustion chamber, and 2) directing the air in a circular current path. The word "and" connecting the two clauses indicate that they are each functions. Hearth's assertion that this term requires only one function, "permitting flow of air in the fuel combustion chamber for directing the air in a circular current path," would make sense only if there were no "and" connecting the two clauses.

Travis contends that the corresponding structure is the U-shaped channel, the distributor plus associated structures in the front of the firebox, and the air injection manifold. Hearth contends that the corresponding structure is only the distributor.

The specification states:

the heated air in air supply means 52 is directed through the distributor 57 through the long narrow slot 59 to provide a laminar flow along the window 45 to keep the glass clean and to provide an even flow of the heated oxygen into the combustion chamber and provide the counterclockwise movement of the gases within the combustion chamber as illustrated in FIG. 2.

(*Id.,* 7:27-34).

This supports Hearth's position that the only corresponding structure is the distributor. The distributor both permits the flow of air into the fuel chamber and directs the air in a circular path. In contrast, the specification identifies all of the various air supply means and describes them working together so that "a portion of the gases is recirculated in a counterclockwise circular flow as shown in FIG. 2." (*Id.,* 6:42-44). However, because the claim term identifies a "second air supply means," the corresponding structure cannot be primary air supply means, and therefore Travis' position is unavailing. At the hearing, Travis could not identify anywhere in the patent that indicates that all three of these air supplies are necessary to perform these functions. Therefore, the only corresponding structure is the distributor.

CONCLUSION

The Court hereby issues the following constructions for the disputed claims terms in Travis' '726 patent and '068 patent and in Hearth's '876 patent:

-> "burner pan" means "a substantially flat metal plate having a gas inlet aperture, which may or may not have perpendicular perimeter sides."

-> "spacer" means "a device or piece, distinct from the burner body and the burner pan, that holds the burner body a given distance from the burner pan base, but not a gasket."

-> "selected color variations" means "the portion of the color spectrum that simulates a natural wood-burning fire."

-> "recessed underportion" means "a portion of the underside of the burner body that is recessed."

-> "gas flow orifice member" means "a device or obstruction placed in a gas-flow orifice that is positioned between two chamber portions, that effects the volume and rate of gas flow through the orifice."

-> "baffle having heat absorbing and insulating means thereon" means "an object placed in an appliance to change the direction or retard the flow of air, air fuel mixtures, or fuel gases, with the heat absorbing and insulating means on top of the aforesaid object."

-> "combustion air supply means for supplying combustion air to the fuel combustion chamber below the heat absorbing means" is a means-plus-function term in which the *function* is: supplying combustion air to the fuel combustion chamber, and the *corresponding structures* include: 1) a U-shaped channel that is affixed centrally to the bottom wall and the back or rear wall, 2) a back wall opening, 3) a bottom channel affixed to both the front and bottom walls, connected to side channels mounted in the front corners between the front wall and the side walls, connected to a distributor that distributes air downward over the inside of the glass or window, 4) apertures formed in the back wall immediately below the baffle, and 5) an air

injection manifold, which can be either a single horizontal piece or a horizontal T-shaped piece, that is mounted below the baffle and forward of the apertures and is attached to air supply conduits.

-> "a second air supply means for permitting flow of air in the fuel combustion chamber and for directing the air in a circular current path" is a means-plus-function term, in which there are dual *functions:* 1) permitting flow of air in the fuel combustion chamber, and 2) directing the air in a circular current path, and the *corresponding structure* is a distributor.

The clerk is directed to provide copies of this order to all counsel of record.

W.D.Wash.,2004.
Travis Industries, Inc. v. Hearth & Home Technologies, Inc.