IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the *Inter Partes* Review of:		Trial Number: TBA
U.S. Patent No. 7,581,688		
Filed:	March 12, 2007	Attorney Docket No.: 14-04-6784
Issued:	September 1, 2009	
Inventor:	Kenneth P. Mally	Panel: TBA
Assignee:	Whirlpool Corporation	
Title:	BLENDER WITH CRUSHED ICE FUNCTIONALITY	

Mail Stop *Inter Partes* Review
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PETITION FOR *INTER PARTES* REVIEW UNDER 37 C.F.R. § 42.100

TABLE OF CONTENTS

I. MANDATORY NOTICES UNDER 37 C.F.R. § 42.8(a)(1) 1
(1) Real Party-In-Interest Under 37 C.F.R. § 42.8(b)(1) 1
(2) Related Matters Under 37 C.F.R. § 42.8(b)(2) 1
(3) Lead and Back-Up Counsel Under 37 C.F.R. § 42.8(b)(3) 1
(4) Service Information Under 37 C.F.R. § 42.8(b)(4) 2
II. REQUIREMENTS FOR *INTER PARTES* REVIEW UNDER 37 C.F.R. §§ 42.104 2
(1) Grounds for Standing Under 37 C.F.R. § 42.104(a) 2
(2) Identification of Prior Art References 3
(3) Identification of Specific Grounds of Unpatentability 4
III. OVERVIEW OF THE '688 PATENT 5
(1) Description of the Alleged Invention of the '688 Patent 5
(2) Summary of the Prosecution History of the '688 Patent 7
IV. CLAIM CONSTRUCTION 11
(1) "Cycle" in Claim 1-8 Means a Series of Events 11
(2) "Phase" in All Claims Means Any Period of Time 13
(3) "Settling Speed" in All Claims Means Any Speed that is Lower Than the Operating Speed 14
(4) "Continuously Reducing" in Claims 6 and 15 Means a Period During Which the Speed is Reduced From High to Low Without Maintaining any Intermediate Speed 16
V. SUMMARY OF KEY PRIOR ART REFERENCES 16
A. U.S. Patent No. 6,364,522 by Kolar et al. 16
B. U.S. Patent No. 5,347,205 by Piland 18
C. U.S. Patent No. 6,609,821 by Wulf et al. 20
VI. SUMMARY OF INVALIDITY ARGUMENTS 21

(1) Claim 1 Is Unpatentable 22
(2) The ‘688 Patent Is the Result of Inattentive Prosecution 29
(3) ‘688 Patent’s Claims Are Not Distinguishable Over the Prior Art Admitted in Its Background 30
(4) Independent Claim 9 Is Merely Claim 1 Rewritten as a Method Claim 32
VII. DETAILED EXPLANATION UNDER 37 C.F.R. § 42.104(b) 33
(1) Claim 1 33
(2) Claim 2 37
(3) Claim 3 38
(4) Claim 4 39
(5) Claim 5 40
(6) Claim 6 41
(7) Claim 7 42
(8) Claim 8 43
(9) Claim 9 44
(10) Claim 10 49
(11) Claim 11 50
(12) Claim 12 51
(13) Claim 13 52
(14) Claim 14 53
(15) Claim 15 54
(16) Claim 16 55
VIII. CONCLUSION 56

On behalf of Homeland Housewares, LLC ("Petitioner") and in accordance with 35 U.S.C. § 311 and 37 C.F.R. § 42.100 *et seq.*, *inter partes* review is respectfully requested for all claims (claims 1-16) of U.S. Patent No. 7,581,688 ("the '688 patent"), entitled Blender with Crushed Ice Functionality, by Kenneth P. Mally issued on September 1, 2009.

I. MANDATORY NOTICES UNDER 37 C.F.R. § 42.8(a)(1)

As set forth below and pursuant to 37 C.F.R. § 42.8(a)(1), the following mandatory notices are provided as part of this Petition.

(1) Real Party-In-Interest Under 37 C.F.R. § 42.8(b)(1)

Homeland Housewares, LLC and Capital Brand, LLC are the real parties-in-interest for Petitioner. Capital Brand, LLC is the parent company of Homeland Housewares, LLC.

(2) Related Matters Under 37 C.F.R. § 42.8(b)(2)

Petitioner is not aware of any related action or proceeding concerning the '688 patent.

(3) Lead and Back-Up Counsel Under 37 C.F.R. § 42.8(b)(3)

Petitioner provides the following designation of counsel.

Lead Counsel	**Back-Up Counsel**
R. Joseph Trojan (Reg. No. 34,264) Trojan@trojanlawoffices.com Fredrick S. Tsang (Reg. No. 68680) Tsang@trojanlawoffices.com **Postal and Hand-Delivery Address:** Trojan Law Offices 9250 Wilshire Blvd., Suite 325 Beverly Hills, CA 90212 Telephone: (310) 77-8399 Fax: 310-691-1086	Dylan C. Dang (Reg. No. 55,797) Dang@trojanlawoffices.com Adam L. Diament (Reg. No. 62,219) Diament@trojanlawoffices.com **Postal and Hand-Delivery Address:** Trojan Law Offices 9250 Wilshire Blvd., Suite 325 Beverly Hills, CA 90212 Telephone: (310) 77-8399 Fax: 310-691-1086

Pursuant to 37 C.F.R. § 42.10(b), a Power of Attorney accompanies this Petition.

(4) Service Information Under 37 C.F.R. § 42.8(b)(4)

Service information for lead and back-up counsel is provided in the designation of lead and back-up counsel, above. Service of any documents via hand-delivery may be made at the postal mailing address of the respective lead or back-up counsel designated above.

II. REQUIREMENTS FOR *INTER PARTES* REVIEW UNDER 37 C.F.R. §§ 42.104

As set forth below and pursuant to 37 C.F.R. § 42.104, each requirement for *inter partes* review of the ‘688 patent is satisfied.

(1) Grounds for Standing Under 37 C.F.R. § 42.104(a)

Petitioner hereby certifies that the '688 patent is available for *inter partes* review and that the Petitioner is not barred or estopped from requesting *inter partes* review challenging the claims of the '688 patent on the grounds identified herein. More particularly, Petitioner certifies that: (1) Petitioner or any real party-in-interest is not the owner of the '688 patent; (2) Petitioner or any real party-in-interest did not and has not filed any civil action or administrative proceeding challenging the validity of a claim of the '688 patent; (3) Petitioner or any real party-in-interest is unaware of any past or pending civil action or administrative proceeding concerning the '688 patent; (4) based on the records of the USPTO's Patent Application Information Retrieval system, there has not been any post-grant review of the '688 patent; and (5) this Petition is filed more than nine months after the date of the issue of the '688 patent, September 1, 2009.

(2) Identification of Prior Art References

The precise relief requested by Petitioner is that all claims (claims 1-16) of the '688 patent are found unpatentable. Specifically, all claims of the '688 patent are unpatentable in view of the following prior art references:

U.S. Patent	**Title**	**Named Inventor**	**Filing Date of the Patent**
7,591,438 ("Bohannon")	Ice Shaver/Blender Control Apparatus and Method	John Robert Bohannon, Jr.	April 29, 2005
6,609,821 ("Wulf")	Blender Base with Food Processor Capabilities	John Douglas Wulf et al.	April 13, 2001
6,402,365	Programmable Electronic	Wai Hung	August 17,

(“Wong”)	Blender	Wong	2001
6,364,522 (“Kolar”)	Blender Having User Operated Drink Program Modifying and Copying Processor	David J. Kolar	June 18, 2001
5,845,991 (“Sundquist”)	Food Processor with a Pulse Button Motor Control Arrangement	Járl Sundquist	June 11, 1997
5,481,641 (“Nakamura”)	Motor Control Apparatus	Akihiko Nakamura et al.	July 7, 1993
5,347,205 (“Piland”)	Speed and Mode Control for a Blender	Clinton E. Piland	September 11, 1992
4,568,193 (“Contri”)	Intermittent Low Speed Control for Motor Operated Appliance	Robert F. Contri et al.	July 9, 1984

Each of the references above is filed and published before the filing of the ‘’688 patent, and thus, is prior art to the ‘688 patent. Although only the above references are identified in this Petitioner, Petitioner reserves the right to move to introduce additional information after the *inter partes* review is instituted.

(3) Identification of Specific Grounds of Unpatentability

Petitioner respectfully requests the Board to find the following:

(i) Claim 1-16 of the ‘688 patent are anticipated under pre-AIA 35 U.S.C. 102(b) by U.S. Patent No. 6,364,522 by Kolar et al. Claims 1-16 are also obvious over Kolar.

(ii) Claims 1-16 of the ‘688 patent are anticipated under pre-AIA 35 U.S.C. 102(b) by U.S. Patent No. 5,347,205 by Piland. Claims 1-16 are also obvious over Piland.

(iii) Claims 1-16 of the ‘688 patent are anticipated under pre-America Invents Act (“pre-AIA”) 35 U.S.C. 102(b) by U.S. Patent No. 6,609,821 by Wulf et al.

(iv) Claim 1-16 of the ‘688 patent are obvious under pre-AIA 35 U.S.C. 103(a) over U.S. Patent No. 6,609,821 by Wulf et al., U.S. Patent No. 5,347,205 by Piland, U.S. Patent No. 6,364,522 by Kolar et al., in view of other references stated above.

III. OVERVIEW OF THE ‘688 PATENT

(1) Description of the Alleged Invention of the ‘688 Patent

The alleged invention of the ‘688 patent is directed to a household blender having a special cycle of operation in order to crush food ingredients, including ice. (*See* ‘688 Patent Title and Col. 1:64-2:2.) In using a blender to crush solid particles, such as ice, when the blender is operating at a high speed, the solid particles will migrate away from the cutter due to a vortex caused by the spinning of the cutter. (*Id*. at Col. 4:1-14; Fig. 4; Col. 6:29-34.) As a result, the cutter will no longer comminute the solid particles. (*Id*. at Col. 4:1-14; Fig. 4.) When the cutter is at a low speed, or is stopped, the solid particles will accumulate at the bottom of the blender chamber around the cutter into a "settled" condition. (*Id*. at Col. 3:59-67.) When the motor is triggered at the "settled" condition, the comminuting effect of the cutter on the solid particles will resume. (*Id*.)

Owing to the different degrees of comminution caused by different rotational speeds of the cutter, the alleged invention operates in a series of acceleration and deceleration modes in order to optimize comminution. The operating cycle comprises (A) a constant speed phase, (B) a deceleration phase, and (C) an acceleration phase. ('688 Patent Claim 1). During the constant speed phase, the cutter operates at a predetermined operating speed. (*Id*.) During the deceleration phase, the cutter reduces its speed from the operating speed to a settling speed. (*Id*.) The settling speed is less than the operating speed but is greater than zero. (*Id*.) After the deceleration phase, during the acceleration phase, the cutter accelerates and returns to the operating speed. (*Id*.) Claim 1 of the '688 Patent broadly covers all blenders having an operating cycle that comprises (A) the constant speed phase, (B) the deceleration phase, and (C) the acceleration phase.

The operating cycle is best illustrated by Figure 6 of the '688 Patent:

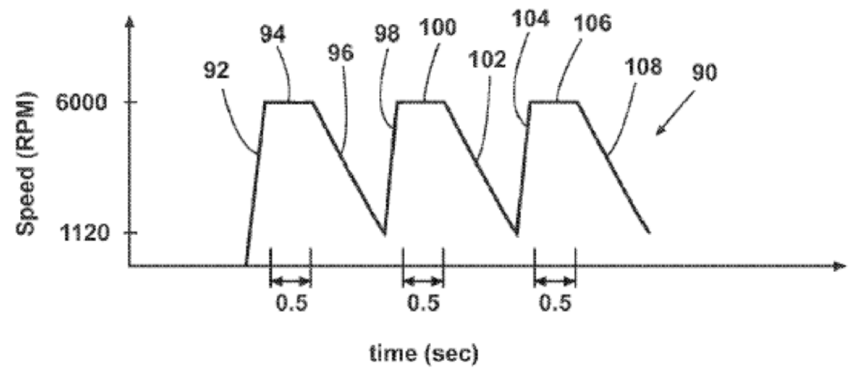


Fig. 6

(2) Summary of the Prosecution History of the '688 Patent

The '688 patent was filed on March 12, 2007 and issued on September 1, 2009, with 16 claims, of which claims 1 and 9 are independent.

There were a total of two Office Actions – one restriction/election Office Action and one substantive Office Action.

The '688 Patent as filed included claims 1-26, of which claims 1, 10, 18 were independent. A restriction/election Office Action was mailed on November 19, 2008. In response to the restriction requirement, the Applicant elected, without traverse, claims 1-9, and 18-26.

A non-final Office Action was mailed on January 6, 2009, rejecting claims 1-9 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,609,821 by Wulf et al. and claims 18-26 under 35 U.S.C. § 103(a) as being obvious over Wulf. The original claims 1-9, with claim 1 as the independent claim, covered a cycle of operation for a blender and the original claims 18-26, with claim 18 as the independent claim, covered the equivalent method. The Examiner rejected claims 1-9 because Wulf "discloses a blender including a speed sensor and associated control means capable of performing the claimed function; note particularly column 13, lines 6-18." The Examiner rejected claims 18-26 because "the method steps of these claims would have been obvious modifications to the patent process [i.e. claims 1-9]."

In response to the non-final Office Action dated January 6, 2009, the Applicant cancelled the original independent claims 1 and 18, rewrote two new independent claims 27 and 28 to replace the original independent claims, and made the original dependent claims 2-9 and 19-26 dependent on the newly drafted claims 27 and 28.

The original claim 1 stated:

> 1. A cycle of operation for a blender comprising a motor, a container for holding items for processing, and a cutter assembly located within the container and operably coupled to the motor whereby the motor effects the movement of the cutter assembly, the cycle comprising:
>
> A) operating the cutter assembly at a predetermined operating speed;
>
> B) reducing the operating speed of the cutter assembly; and
>
> C) accelerating the operating speed of the cutter assembly *in response to the items in the container having settled around the cutter assembly*.

(Emphasis added.)

The newly drafted claim 27 stated:

> 27. A cycle of operation for a blender comprising a motor, a container for holding items for processing, and a cutter assembly located within the container and operably coupled to the motor whereby the motor effects the rotation of the cutter assembly, the cycle comprising:
>
> automatically controlling a rotational speed of the cutter assembly to effect a pulsing of the speed of the cutter assembly wherein each pulse comprises:
>
> (A) a constant speed phase, where the operating speed of the cutter assembly is maintained at a predetermined operating speed,
>
> (B) a deceleration phase, where the speed of the cutter assembly is reduced from the operating speed to a predetermined settling speed *indicative of the items in the container having settled around the cutter assembly*, *which is less than the operating speed and greater than zero*, and
>
> (C) an acceleration phase, where the speed of the cutter assembly is increased from the settling speed to the operating speed.

(Emphasis Added.)

Comparing the original claim 1 to the newly drafted claim 27, the only limitation added in claim 27 to further limit the claim is that the settling speed has to be "less than the operating speed and greater than zero." Other changes merely involved rewriting the language without further limiting the original claims. For example, the terms "reducing the operating speed" and "accelerating" were merely rewritten as "deceleration phase" and "acceleration phase" respectively. The phrase "in response to the items in the container having settled around the cutter assembly" in claim 1 has been rewritten as "indicative of the items in the container having settled around the cutter assembly." This in fact broadens the claims with respect to this feature because the blender is no longer required to act in response to a condition.

Before the Applicant officially responded to the Office Action, the Applicant sent the proposed amended claims to the Examiner and an examiner interview was conducted on February 25, 2009. The Examiner noted that, based on the interview, the claims were allowable over the art of record.

In the official response to the Office Action, the Applicant noted,

> New independent claims 27 and 28 call for a blender controlling a rotational speed of the cutter assembly to effect a pulsing of the speed of the cutter assembly, each pulse comprising a speed change between an operating speed and a settling speed, which is greater than zero. Thus*, a motor of the blender according to this invention will never stop or reverse direction of rotation as part of the individual pulse*.

(Emphasis added.)

Subsequently, the claims were allowed and were renumbered in the current form.

IV. CLAIM CONSTRUCTION

A claim subject to *inter partes* review receives the "broadest reasonable construction in light of the specification of the patent in which it appears." 37 C.F.R. § 42.100(b). In Petitioner's opinion, three terms are required to be construed. The terms are (1) "cycle" in claims 1-8, (2) "phase" in all claims, (3) "settling speed" in all claims, and (4) "continuously reducing" in claims 6 and 15. Petitioner submits that the terms should have the same construction in all these claims.

(1) "Cycle" in Claim 1-8 Means a Series of Events:

Petitioner proposes that "cycle" should mean a series of events, with or without repetition.

There are two reasonable constructions for the term "cycle." First, "cycle" could mean a series of events that are regularly repeated in the same order. Under this construction, the arranged events must be repeated at least once to become a "cycle." Second, "cycle" could merely mean a series of events, with or without repetition. Hence, under the second construction, even if a blender only performs the steps (A), (B), and (C) as stated in claim 1 of the '688 patent once, the blender will have performed a "cycle."

Petitioner submits that the second construction of "cycle" is the proper construction. Although in ordinary use "cycle" usually refers to a series of repeated events, this construction that requires repetition is not the broadest reasonable construction. Under the broadest reasonable construction, "cycle" merely means a series of events. Repetition is not a requirement for a series of events to become a cycle.

The second construction is supported by the '688 patent claims themselves. In claim construction, one should "begin a claim construction analysis by considering the language of the claims themselves." *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1327 (Fed. Cir. 2009). Here, the term "cycle" in, for example, claim 1 is further defined as "a pulsing of the speeding of the cutter assembly." It is noteworthy that the phrase "a pulsing" is used instead of the plural form "pulsings." It is well established that the article "a" in claim language means one or more than one. This means, under the broadest reasonable construction, a "cycle" may only have one pulse. No repetition is needed to be qualified as a "cycle." This construction is also evident by claim 2, which further limits claim 1 by requiring "steps A, B, and C are sequentially *repeated*." This indicates that claim 1 could include "cycle" that has no repetition.

Based on this construction, any prior art that discusses a series of events of changing motor speeds, even though it does not explicitly disclose the idea of repeating these events, would disclose the claim element "cycle."

(2) "Phase" in All Claims Means Any Period of Time:

Petitioner proposes that the term "phase" should mean any period of time.

The term "phase" appears in the claims to describe different stages of a pulse. Each pulse in the claims comprises "a constant speed *phase*," "a deceleration *phase*," and "an acceleration *phase*." During the prosecution of the '688 Patent, the Applicant changed the terms "reducing the operating speed" and "accelerating" to "deceleration phase" and "acceleration phase" respectively.

Ordinary meaning of "phase" means a period or stage in a process of change. Under the broadest reasonable construction, the term, for example, "acceleration phase" should have no meaningful difference from "accelerating." Although one may argue that the use of the term "phase" may signify a distinct period, such distinct period can be very brief. When a physical object accelerates from one speed to a higher speed, it cannot be done without a period of acceleration. In other words, a physical object cannot instantaneously change from one speed to another without a period of acceleration, no matter how the fast the acceleration appears to be. Hence, for any acceleration of a real object, there must be a "phase" of acceleration, no matter how brief such acceleration phase is.

As such, under the broadest reasonable construction, the term phase should mean any period of time. For example, "acceleration phase" should mean any period of acceleration. This is also support by the specification. In Figure 6 of the

'688 Patent, the acceleration phase 98 and 104 are represented by almost vertical lines, while the relatively "long" periods 94, 100, and 106 are merely 0.5 second.

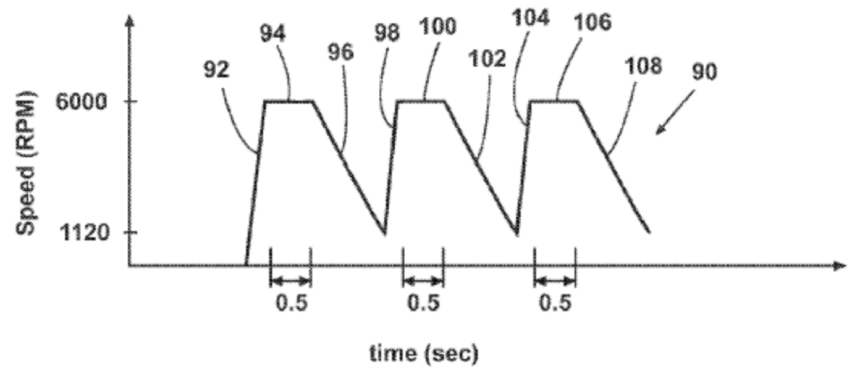


Fig. 6

This indicates the "acceleration phase" or "deceleration phase" claimed can be very abrupt or fast to be qualified a "phase." The "phase" does not have to be long enough to be visually distinct. It can be any period of time.

Based on this construction, any prior art that discusses deceleration or acceleration in a cycle would disclose the claim elements "deceleration phase" and "acceleration phase." This is true even though the deceleration or acceleration appears to be very abrupt or fast.

(3) "Settling Speed" in All Claims Means Any Speed that is Lower Than the Operating Speed:

Petitioner proposes that the term "settling speed" should mean any speed that is lower than a referenced speed, the "operating speed." Petitioner further proposes that the phase "indicative of the items in the container having settled around the cutter assembly" does not further limit the element "settling speed."

In claim 1, the term "settling speed" is further modified by the word "predetermined" and the phrase "indicative of the items in the container having settled around the cutter assembly." Since the settling speed is predetermined, it is NOT a speed at which the blender detects the items in the container as having settled around the cutter assembly. Thus, the claims in the '688 Patent do not include a step to detect whether the items in the container have settled around the cutter assembly.

It is noteworthy that the term "settled around" can only be understood in a comparative sense. When any cutter blade is rotating, slowly or rapidly, there are always some items in close proximity to the cutter blade and there are always other items that are spun away. Without comparison, it is impossible to say whether the items are "settled around" the cutter blade or not. Thus, the term "settled around" is only meaningful when compared to a stage that is less "settled around." At one low speed, the items are "settled around" when compared to those at a high speed but are not "settled around" when compared to those at an even lower speed. There is no absolute "settled around" unless the blender is completely turned off, a condition that has been explicitly disclaimed in the '688 Patent.

Since "settled around" can only be used in a comparative sense, it is inherent that a slower speed will be "indicative of the items in the container having settled around the cutter assembly" when compared to a faster speed.

As such, the phrase "indicative of the items in the container having settled around the cutter assembly" should not further limit "settling speed." It merely provides a clarification what a "settling speed" does when compared to "an operating speed."

(4) "Continuously Reducing" in Claims 6 and 15 Means a Period During Which the Speed is Reduced From High to Low Without Maintaining any Intermediate Speed:

The term "continuously" is inherently ambiguous when it is used in conjunction with "reducing" the speed of a cutter blade of a blender. No matter how abrupt or quick a reduction of speed of a cutter blade is, the law of physics dictates that the reduction of speed of a physical object is *always* "continuous." A moving physical object cannot reduce its speed to zero instantaneously.

Since the adjective "continuous" defines an event without interruption, Petitioner proposes that "continuously reducing" means a phase during which the speed is reduced from high to low without maintaining any intermediate speed.

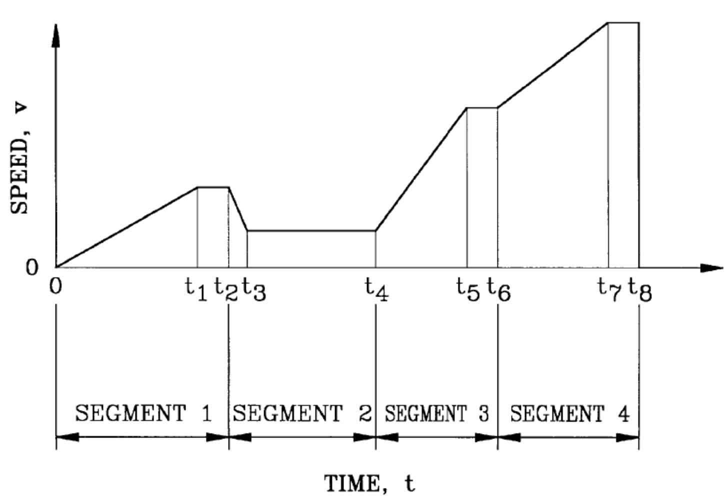
V. SUMMARY OF KEY PRIOR ART REFERENCES

A. U.S. Patent No. 6,364,522 by Kolar et al.

Kolar discloses a programmable blender having user-operated program. (Kolar Title.) Its background discloses, "digital electronics has made it feasible for blenders to include memory in which is stored the different motor speeds and operating intervals required for making a plurality of kinds of drinks." (Kolar Col. 1:42-45.)

The blenders disclosed in Kolar contain different default blend programs. (Kolar Col. 7:7-8:23; Fig. 9.) The user may also customize the drink programs. (*Id.*) One type of blend program is called "pulse blend cycle." (*Id.* at Col. 8:13-15; Fig. 9.) The blenders in Kolar also utilize "a tachometer or other rotational velocity sensor in operative association with blender motor." (*Id.* at Col. 5:3-5.)

Figure 6, as shown below, in Kolar illustrates an exemplary drink program with different motor speeds, ramp rates and durations. (Kolar Col. 3:33-35.)



FIG–6

Figure 6 "presents a graph of blender motor speed verses time for an exemplary drink program having four operating segments each with different, variable operating characteristics." (Kolar Col. 4:41-44.) The blender is operating at "some preselected first velocity" at t_1 until t_2. (*Id*. at Col. 4:44-47.) From t_1 to t_2, the speed remains constant and the speed was preselected. Hence, it discloses a constant speed phase that is predetermined. From t_2 to t_3, Kolar discloses the blender reduces its speed from the preselected first velocity to a lower speed at t_3. (*Id*. at Fig. 6.) The lower speed, according to Figure 6, is clearly greater than zero. At t_4, the blender begins to increase its speed and Figure 6 shows a period of acceleration in between t_4 and t_5. (*Id*.)

Kolar was not cited or disclosed in the prosecution of the '688 Patent.

B. U.S. Patent No. 5,347,205 by Piland

Piland discloses a blender with different operating modes. (Piland Title.) One operating mode is called the "autopulse mode." (Piland Col. 13:3-5.) "The autopulse mode causes energization of the drive motor 40 to take place in a programmed pulse-like manner." (*Id*.) "Unlike the manual pulse mode, the pulsing takes place automatically and the operator is not required to repeatedly depress and release a speed selection switch." (*Id*. at Col. 13:5-7.) There are several patterns of energization as illustrated by Piland's Figure 12, which is reproduced below. (*Id*. at Col. 13:65-69.)

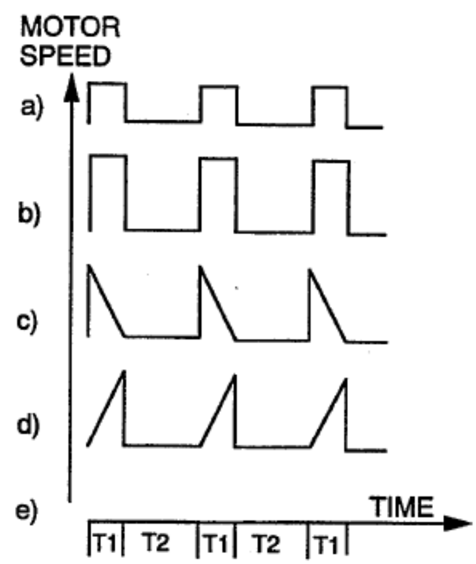


Fig. 12

In the second pattern of energization, for example, "the motor is energized to run at a selected first speed," then "the motor speed is decreased in a ramp-like manner to a second speed." (Piland Col. 14:3-7.) "The second speed may be … some speed greater than zero." (*Id*. at Col. 14:8-9.)

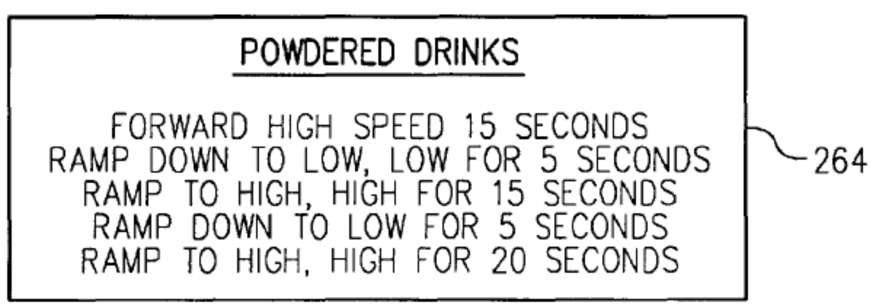
Piland also discloses that the time intervals shown in Figure 12 may vary "between the selected speeds with a given pattern." (Piland Col. 14:23-26.) The parameters for controlling energization of the motor include a speed value and a speed modification value. (*Id*. at Col. 14:34-38.)

Piland was disclosed in one of the Applicant's Information Disclosure Statements, but was not expressly cited or discussed in any Office Action.

C. U.S. Patent No. 6,609,821 by Wulf et al.

Wulf discloses a blender with preprogrammed operations. (Wulf Abstract.) The blender is "programmed with various motor commands (e.g., direction of rotation, speed, duration, reversing of rotation, oscillation, etc.) designed to achieve a particular result." (Wulf Col. 14:7-10.) One example of a programmed routine provided in the specification is for the making of salsa, which comprises a high speed forward pulse for 1 second followed by a high speed reverse pulse by 1 second for 30 times. (*Id.* at Col. 14:20-35.) Wulf also discloses other example routines in Figures 25-27. (*Id.* at Col. 14:44-46.) Figure 25 shows the following routine:

FIG. 25



Wulf also discloses a sensor that is configured to provide "information regarding the strain placed on the motor during operation." (Wolf Col. 13:6-9.) "The sensor may, for example, utilize a hall effect senor and a magnet to make a simple tachometer to measure the speed [of the motor]." (*Id*. at Col. 13:9-15.) The microcontroller of the blender use the detected information to control the route operated by the motor. (*Id*. at Col. 13:14-19.)

In its background, Wulf further discloses a common known method to chop ice: "a user may hit a slow button, wait a while, hit a faster speed, wait, hit yet a faster speeds, etc." (Wolf Col. 2:15-17.) The background also discloses the idea that a user "may have to stop the blending process to dislodge ice or to assure the ice is coming into contact with the blades." (*Id*. at 2:17-19.)

It is noteworthy that Wulf was the primary reference cited against the patent application in the Office Action dated January 6, 2009.

VI. SUMMARY OF INVALIDITY ARGUMENTS

There is a reasonable likelihood that at least one claim of the '688 Patent is unpatentable under 37 C.F.R. § 42.104.

Blenders with a fast-slow alternating operating cycle, which is also commonly referred to as a "pulse mode," had been widely available long before the filing date of the '688 Patent. This is evident by Kolar, Piland, and Wulf. All three of the references disclose the idea of a "pulse mode." Yet, the '688 Patent broadly claims any blenders with a constant speed phase, a deceleration phase, and an acceleration phase without any other further meaningful limitation that distinguishes itself from the prior art. The '688 Patent covers basically any blenders that changes speed during an operating cycle because such blenders will unavoidably contain constant speed period, deceleration and acceleration. The ‘688 Patent claims must be invalidated because it is both anticipated and obvious.

As a preliminary note, during the prosecution of the ‘688 Patent, the applicant added a limitation “which is less than the operating speed and greater than zero” to requires the settling speed to be greater than zero. The applicant made an argument that this limitation distinguishes prior art. However, this allegedly distinguishing limitation is clearly disclosed by Kolar and Piland. In Figure 6 of Kolar, between t_3 and t_4, it clearly shows a settling speed that is lower than other operating speeds and is greater than zero. Piland also explicitly states, “the second [slower] speed may be … some speed greater than zero.” (Piland Col. 14:8-9.)

(1) Claim 1 Is Unpatentable

Claim 1 of the ‘688 Patent states:

> A cycle of operation for a blender comprising a motor, a container for holding items for processing, and a cutter assembly located within the container and operably coupled to the motor whereby the motor effects the rotation of the cutter assembly, the cycle comprising:
>
> automatically controlling a rotational speed of the cutter assembly to effect a pulsing of the speed of the cutter assembly wherein each pulse comprises:
>
> (A) a constant speed phase, where the operating speed of the cutter assembly is maintained at a predetermined operating speed,

> (B) a deceleration phase, where the speed of the cutter assembly is reduced from the operating speed to a predetermined settling speed indicative of the items in the container having settled around the cutter assembly, which is less than the operating speed and greater than zero, and
>
> (C) an acceleration phase, where the speed of the cutter assembly is increased from the settling speed to the operating speed.

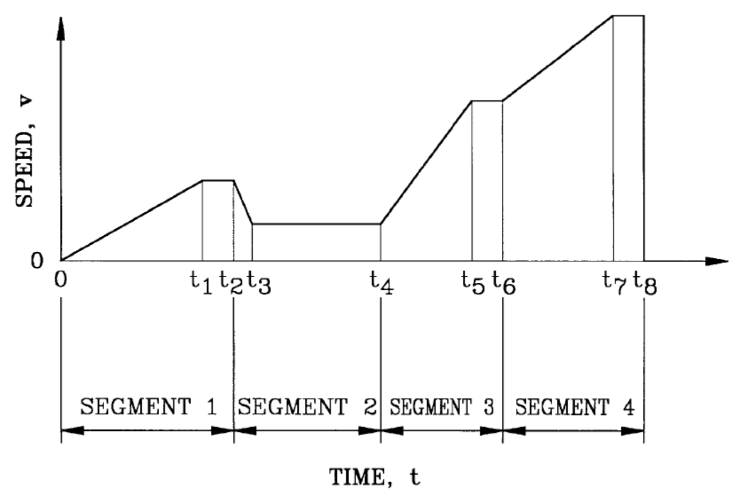
The claim has a long preamble, which basically set forth what a blender is. Petitioner submits that the preamble should not be limiting. Even if the preamble is limiting, any prior art blender will disclose the elements in the preamble.

The limitation "automatically controlling a rotational speed of the cutter assembly to effect a pulsing of the speed of the cutter assembly" is disclosed by Kolar, Piland, and Wulf. All three references disclose a blender with operating modes that, once initiated, can control the speed of the motor without any further manual commands from the users. Kolar refers to such automatic operating mode as the "pulse blend cycle" (Kolar Col. 8:13-15; Fig. 9); Piland refers to such automatic operating mode as the autopulse mode (Piland Col. 13:3-5); and Wulf refers to such automatic operating mode as the program routine (Wulf Col. 14:7-10). For example, Piland expressly discloses, "unlike the manual pulse mode, the pulsing takes place automatically and the operator is not required to repeatedly depress and release a speed selection switch." (Piland Col. 13:5-7.)

As to the limitation that each pulse comprises (A) a constant speed phase, (B) a deceleration phase, and (C) an acceleration phase, this type of pulsing is clearly disclosed by Figure 6 of Kolar, Figure 12 of Piland, and Figure 25 of Wulf.

Kolar's Figure 6:

Kolar clearly discloses a constant speed phase, a declaration phase, and an acceleration phase.



FIG−6

Figure 6 "presents a graph of blender motor speed verses time for an exemplary drink program having four operating segments each with different, variable operating characteristics." (Kolar Col. 4:41-44.) The blender is operating at "some preselected first velocity" at t_1 to t_2. (*Id.* at Col. 4:44-47.) From t_1 to t_2, the speed remains constant and the speed was preselected. Hence, it discloses a constant speed phase that is predetermined. From t_2 to t_3, Kolar discloses the blender reduces its speed from the preselected first velocity to a lower speed at t_3. (*Id*. at Fig. 6.) The lower speed, according to Figure 6, is clearly greater than zero. At t_4, the blender begins to increase its speed and Figure 6 shows a period of acceleration in between t_4 and t_5. (*Id*.) These speeds are all predetermined because they are the default speeds or speeds that are programmed by the user. (Kolar Col. 7:7-8:23; Fig. 9.)

Hence, Kolar discloses all of the essential elements of the '688 Patent claims, specifically including the claim elements of a constant speed, an deceleration phase greater than zero, and acceleration phase. As shown in Figure 6 of Kolar, the Kolar cycle has a constant speed phase from t_1 to t_2; a deceleration phase from t_2 to t_3 that is greater than zero; and an acceleration phase from t_4 to t_5. This means that Kolar fully anticipates the claims at issue.

Even if the Board interprets the term "cycle" as having at least one repetition, Kolar will render the '688 Patent obvious because it would have been obvious within the skill in the art to duplicate what is disclosed in Figure 6 of Kolar, such as the period from 0 to t_4, to make the constant speed phase, acceleration and deceleration repetitive. *In re Harza*, 274 F.2d 669, 671 (C.C.P.A. 1960) ("the mere duplication of parts has no patentable significance unless a new and unexpected result is produced"); Manual of Patent Examining Procedure § 2144.04.

Piland's Figure 12:

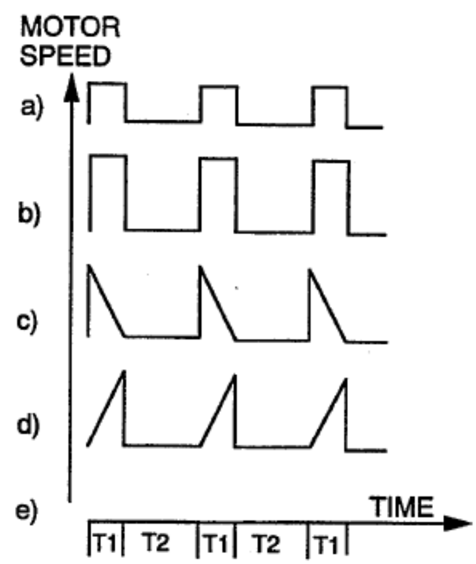
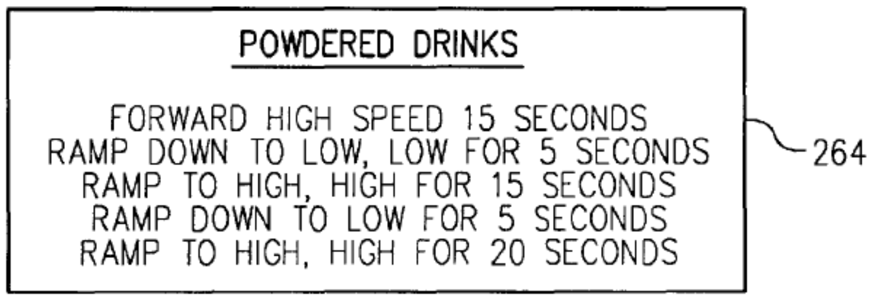


Fig. 12

Figure 12 of Piland completely discloses all limitations in Claim 1 of the '688 Patent. Each of the patterns a, b, c, and/or d describes "(A) a constant speed phase," "(B) a deceleration phase," and "(C) an acceleration phase." Piland explicitly states that "the second [slower] speed may be … some speed greater than zero." (Piland Col. 14:8-9.) Since the autopulse mode is preprogrammed in the blender, the speeds shown in different patterns of a, b, c, and/or d in Figure 12 are all "predetermined." Finally, that the items settle around the cutter assembly is inherent in any low speed operation. Hence, all the elements of the present claims are taught by Piland.

Wulf's Figure 25:

FIG. 25



Wulf's Figure 25 shows that the blender, once entered the "powdered drinks routine," will first operate for a high speed for 15 seconds, then decelerates to a low speed for 5 seconds, and accelerates back to the high speed for another 15 second, etc. '688 Patent Claim 1 requires the settled speed is less than the operating speed. Hence, the high speed in Wulf's Figure 25 is equivalent to the operating speed in the '688 Patent claims while the low speed in Wulf's Figure 25 is equivalent to the settling speed in the '688 Patent claims. The high speed of 15 seconds in Wulf's Figure 25 indicates that the blender has "a constant speed phase" of 15 seconds. The ramp down to low in Wulf's Figure 25 indicates that the blender has "a deceleration phase." The ramp to high in Wulf's Figure 25 indicates that the blender has an "acceleration phase, where the speed of the cutter assembly is increased from the settling speed to the operating speed."

The terms "ramp up" and "ramp down" in Wulf are the same as the acceleration phase and deceleration phase in the '688 Patent claims, especially when the term "phase" should be construed as any period of time.

Since the blender disclosed in Wulf is "programmed with various motor commands (e.g., direction of rotation, speed, duration, reversing of rotation, oscillation, etc.) designed to achieve a particular result" (Wulf Col. 14:7-10), both high speed and low speed are "predetermined."

The use of the word "low" instead of the use of the word "stop" or "zero" indicates that the low speed is "less than the operating speed and greater than zero."

The phrase "indicative of the items in the container having settled around the cutter assembly" in the '688 Patent is merely an inherent property when a blender is operating at a "low speed." Moreover, Wulf's background further discloses a common known method to chop ice: "a user may hit a slow button, wait a while, hit a faster speed, wait, hit yet a faster speeds, etc." (Wolf Col. 2:15-17.) The background also discloses the idea that a user "may have to stop the blending process to dislodge ice or to assure the ice is coming into contact with the blades." (*Id*. at 2:17-19.) Thus, a low speed for the items to be settled around the cutter was known in the art before the filing of the '688 Patent.

In sum, Wulf discloses all the elements of the '688 Patent claims by utilizing cycles of alternating high speed and low speed to allow items to settle around the blades during low speed. Wulf also discloses the elements of the Patent claims of automating the process of alternating high speed and low speed. The automated process includes using a high speed, decelerating to a low speed, and accelerating back to high speed. All of the elements claimed in the '688 Patent are disclosed in Wulf.

(2) The '688 Patent Is the Result of Inattentive Prosecution

As discussed above, Wulf discloses all of the limitations contained in the claims of '688 Patent. Wulf was also the main reference cited in the prosecution. The file history of the '688 Patent offers little information on why the allowed claims are patentable over Wulf.

The prosecution of the '688 Patent is perfunctory. After the first substantive Office Action was mailed on January 6, 2009 and the claims were rejected based on Wulf, the Applicant sent the allowed claims to the Examiner as a proposed amendment and conducted an interview with the Examiner before it officially responded to the Office Action. The Examiner subsequently allowed the proposed claims without offering any reason, even though the newly drafted claims contained only one additional limitation, "which is less than the operating speed and greater than zero," a limitation that is also clearly disclosed in Wulf.

Comparing the allowed claims to the original claims, the only limitation added in claim 27 to further limit the claim is that the settling speed has to be "less than the operating speed and greater than zero." This is also the only difference Applicant argued in its Response to the January 6, 2009 Office Action:

> New independent claims 27 and 28 call for a blender controlling a rotational speed of the cutter assembly to effect a pulsing of the speed of the cutter assembly, each pulse comprising a speed change between an operating speed and a settling speed, which is greater than zero. Thus*, a motor of the blender according to this invention will never stop or reverse direction of rotation as part of the individual pulse*.

(Emphasis added.) Applicant made this argument apparently because Wulf's claim 1 covers the feature of "a reversible motor" and "both forward and reverse functions." (Wulf Col. 20:20-35.) Hence, Applicant argued that a motor without stopping or reversing direction of rotation as part of the individual pulse would be distinguishable from Wulf. Applicant apparently overlooked Wulf's Figure 25, one of the embodiments in Wulf, which shows cycles of alternating high speed and low speed. Thus, the limitation "less than the operating speed and greater than zero" does not distinguish the '688 Patent from Wulf in any meaningful way.

(3) '688 Patent's Claims Are Not Distinguishable Over the Prior Art Admitted in Its Background

In the background, the '688 Patent admits that there had been blenders with "preprogrammed 'on-off' sequence," which "enables hands-free operation of the blender, but the constant, regular pulsing pattern is not efficient." ('688 Patent Col. 1:38-40.) In its specification, the '688 Patent purportedly contends that it is "different than the repeating time-based pulsing pattern of conventional blenders." Yet, the claims in the '688 Patent cover all "time-based pulsing pattern of conventional blenders" because they broadly cover all pulsing patterns with (A) constant speed phase, (B) accelerating phase, and (C) decelerating phase. The claims fail to include any meaningful limitation to distinguish the "conventional time-based pulsing pattern."

While the claims in the '688 Patent contain a phrase "indicative of the items in the container having settled around the cutter assembly," the phrase does not further limit the claims in any meaningful way to make the claims distinguishable from the prior art. First, it is an inherent property that the items will settle around the blade when the blade begins to slow down. Prior art such as Wulf explicitly discloses this idea. Second, the phrase itself is too vague. It is impossible to determine how close the items have to be to the blade to be qualified as "settled around the cutter assembly." The items would inherently be more settled around the blade when the blade decelerates. Under the broadest reasonable construction in claim construction, all prior art references that have two operating speeds inherently disclose the idea of items being settled around the blade when the prior art blender is operating at the lower speed.

(4) Independent Claim 9 Is Merely Claim 1 Rewritten as a Method Claim

There are only two independent claims in the ‘688 Patent. Claim 9 is equivalent to claim 1. It has no addition of any meaningful limitation that makes claim 9 separately patentable. In claim 9, the constant speed phase (A) includes a phrase “until at least some of the food items are suspended above the cutter assembly.” This is inherently disclosed in any prior art blender. When a blender operates, the blade moves and creates a vortex. This will bring at least some of the food items in the container above the cutter assembly. This is true for any blender. Hence, the phrase “until at least some of the food items are suspended above the cutter assembly” does not distinguish the claim in any way from the prior art.

Similarly, the deceleration phase (B) in claim 9 includes a phrase “to allow at least some of the food items to settle around the cutter assembly.” This phrase also does not limit the claim in any way in the context of blender prior art. Inherently, when a cutter assembly slows down, it creates less turbulence and a weaker vortex. This allows the food items to settle around the cutter. This is true for all prior art references that disclose operating cycles with two speeds, including Wulf, Piland, and Kolar.

All other claims are dependent on claim 1 or claim 9. As demonstrated in the claim chart below, the additional limitations in the dependent claims do not contain any patentable feature. Hence, *inter partes* review for all claims of the '688 Patent should be granted.

VII. DETAILED EXPLANATION UNDER 37 C.F.R. § 42.104(b)

(1) Claim 1:

Claim 1	Anticipated by Kolar
1. A cycle of operation for a blender comprising a motor, a container for holding items for processing, and a cutter assembly located within the container and operably coupled to the motor whereby the motor effects the rotation of the cutter assembly, the cycle comprising:	Preamble should not be limiting. Moreover, the subject matter of Kolar is a blender. (*See* Kolar Col. 3:57-65.) Thus, it has a motor, a container for holding items, a cutter located within the container and operably coupled to the motor.
automatically controlling a rotational speed of the cutter assembly to effect a pulsing of the speed of the cutter assembly wherein each pulse comprises:	The blenders disclosed in Kolar contain different default blend programs. (Kolar Col. 7:7-8:23; Fig. 9.) The user may also customize the drink programs. (*Id.*) One type of blend program is called "pulse blend cycle." (*Id*. at Col. 8:13-15; Fig. 9.)
(A) a constant speed phase, where the operating speed of the cutter assembly is	Figure 6 of Kolar shows a constant speed phase, such as from t_1 to t_2. The speed could be in accordance with the default blend programs or user customized. (Kolar Col. 7:7-8:23; Fig. 9.) Hence, the speed is

maintained at a predetermined operating speed,	predetermined.
(B) a deceleration phase, where the speed of the cutter assembly is reduced from the operating speed to a predetermined settling speed indicative of the items in the container having settled around the cutter assembly,	Figure 6 of Kolar shows a deceleration phase, such as from t_2 to t_3.
which is less than the operating speed and greater than zero,	Figure 6 of Kolar shows that the lower speed, such as from t_3 to t_4, is lower than other speeds but is greater than zero.
and (C) an acceleration phase, where the speed of the cutter assembly is increased from the settling speed to the operating speed.	Figure 6 of Kolar shows that the acceleration phase can be from 0 to t_1 and from t_4 to t_5.

Claim 1	**Anticipated by Piland**
1. A cycle of operation for a blender comprising a motor, a container for holding items for processing, and a cutter assembly located within the container and operably coupled to the motor whereby the motor effects the rotation of the	Preamble should not be limiting. Moreover, the subject matter of Piland is a blender, which has a motor, a container for holding items, a cutter located within the container and operably coupled to the motor. (*See* Piland Col. 3:42-52.)

cutter assembly, the cycle comprising:	
automatically controlling a rotational speed of the cutter assembly to effect a pulsing of the speed of the cutter assembly wherein each pulse comprises:	Piland discloses a blender with different operating modes. (Piland Title.) One operating mode is called the "autopulse mode." (Piland Col. 13:3-5.) "Unlike the manual pulse mode, the pulsing takes place automatically and the operator is not required to repeatedly depress and release a speed selection switch." (*Id*. at Col. 13:5-7.)
(A) a constant speed phase, where the operating speed of the cutter assembly is maintained at a predetermined operating speed,	Figure 12 of Piland shows a series of alternation of high speed and low speed. Pattern a and b in Figure 12 clearly shows a constant speed phase. The autopulsing mode is pre-programmed and stored in ROM (*see* Piland Col. 13:2-15:52), thus the speed is predetermined.
(B) a deceleration phase, where the speed of the cutter assembly is reduced from the operating speed to a predetermined settling speed indicative of the items in the container having settled around the cutter assembly,	Pattern c of Figure 12 of Piland shows a deceleration phase. In patterns a and b, when the speed changes from high speed to a low speed, the cutter must undergo a deceleration phase.
which is less than the operating speed and greater than zero,	Piland discloses, "The second speed may be … some speed greater than zero." (Piland at Col. 14:8-9.) The second speed is slower than the first speed. (*Id*. at Col. 14:3-7.)
and (C) an acceleration phase, where the speed of the cutter assembly is increased from the	Pattern d of Figure 12 of Piland shows an acceleration phase. In patterns a and b, when the speed changes from low speed to a high speed, the cutter must undergo an acceleration phase.

settling speed to the operating speed.	

Claim 1	Anticipated by Wulf
1. A cycle of operation for a blender comprising a motor, a container for holding items for processing, and a cutter assembly located within the container and operably coupled to the motor whereby the motor effects the rotation of the cutter assembly, the cycle comprising:	Preamble should not be limiting. Moreover, the subject matter of Wulf is a blender, which has a motor, a container for holding items, a cutter located within the container and operably coupled to the motor. (*See* Wulf Fig. 3.)
automatically controlling a rotational speed of the cutter assembly to effect a pulsing of the speed of the cutter assembly wherein each pulse comprises:	The blender in Wulf is "programmed with various motor commands (e.g., direction of rotation, speed, duration, reversing of rotation, oscillation, etc.) designed to achieve a particular result." (Wulf Col. 14:7-10.) One example of pulsingis the routine to make Salsa, which comprises a high speed forward pulse for 1 second followed by a high speed reverse pulse by 1 second for 30 times. (*Id*. at Col. 14:20-35.) Since the routine is pre-programmed, it is operated automatically when the routine is selected.
(A) a constant speed phase, where the operating speed of the cutter assembly is maintained at a predetermined operating speed,	Figure 25 of Wulf shows a high speed for 15 seconds, which is a constant speed phase. The high speed, despite unspecified, is part of the pre-programmed routine and, thus, is predetermined. (*See* Wulf Col. 14:7-10.)
(B) a deceleration phase,	Figure 25 of Wulf shows a low speed for 5 seconds is

where the speed of the cutter assembly is reduced from the operating speed to a predetermined settling speed indicative of the items in the container having settled around the cutter assembly,	followed by a high speed of 15 seconds. The process of reducing speed must undergo a deceleration phase. Wulf also discloses in its background that a user "may have to stop the blending process to dislodge ice or to assure the ice is coming into contact with the blades." (Wulf Col. 2:17-19.) This discloses the idea that a low speed is used for the items to settled around of the cutter assembly.
which is less than the operating speed and greater than zero,	Figure 25 of Wulf shows a low speed for 5 seconds. The term "low" means it is greater than zero but is less than the high speed.
and (C) an acceleration phase, where the speed of the cutter assembly is increased from the settling speed to the operating speed.	In Figure 25 of Wulf, after the low speed for 5 seconds, it is followed by another high speed for 15 seconds. The process of increasing speed must undergo an acceleration phase.

(2) Claim 2:

Claim 2	Anticipated by Kolar
2. The cycle according to claim 1, wherein steps A, B, and C are sequentially repeated until at least one of the cycle automatically ending and the user manually ending the cycle.	Kolar discloses, "The chosen drink program is executed and selected program characteristics such as current motor speed and remaining time are displayed in step 102. While the drink program is executing in block 103 a check is repeatedly made to determine if the user has selected another button to override the remainder of the drink program." (Kolar Col. 8:4-12.) Thus, the cycle can be ended automatically or upon user's manual overriding command.

Claim 2	Anticipated by Piland

2. The cycle according to claim 1, wherein steps A, B, and C are sequentially repeated until at least one of the cycle automatically ending and the user manually ending the cycle.	Piland discloses, "the operator programs a run time then pulsing of the motor terminates after the programmed time interval has elapsed. If a programmed run time is not selected then the pulsing of the motor continues until the operator actuates the OFF switch 16." (Piland Col. 13:12-17.) Hence, Piland discloses the cycle can end automatically or manually.

Claim 2	**Anticipated by Wulf**
2. The cycle according to claim 1, wherein steps A, B, and C are sequentially repeated until at least one of the cycle automatically ending and the user manually ending the cycle.	Figures 25-27 of Wulf show that the cycle can be automatically ended. The routine that works particularly well for salsa (Col. 14:20-30) will also automatically ends after repeat of 29 times. Wulf discloses a pause/resume witch that may be pressed by the user to temporarily stop the blender operation (Col. 17:50-63), indicating the cycle can be manually ended.

(3) Claim 3:

Claim 3	**Anticipated by Kolar**
3. The cycle according to claim 1, wherein step A comprises maintaining the predetermined operating speed for a predetermined operating time period.	Figure 6 of Kolar shows different time intervals from t_1 to t_8. All of the time intervals are predetermined.
Claim 3	**Anticipated by Piland**
3. The cycle according to claim 1, wherein step A comprises maintaining	Piland discloses "the motor may be energized during first intervals T1 (FIG. 12) of one second…." (Piland Col. 13:8-10.)

the predetermined operating speed for a predetermined operating time period.	

Claim 3	Anticipated by Wulf
3. The cycle according to claim 1, wherein step A comprises maintaining the predetermined operating speed for a predetermined operating time period.	Wulf discloses, for example in Figure 25, a forward high speed for 15 seconds. This means the predetermined operating speed is maintained for a predetermined time period – 15 seconds.

(4) Claim 4:

Claim 4	Anticipated by Kolar
4. The cycle according to claim 3, wherein the predetermined operating speed is selected to comminute the items.	Any speed in any blender can be selected to comminute the items. It is an inherent property of a blender.

Claim 4	Anticipated by Piland
4. The cycle according to claim 3, wherein the predetermined operating speed is selected to comminute the items.	Any speed in any blender can be selected to comminute the items. It is an inherent property of a blender.

Claim 4	Anticipated by Wulf

4. The cycle according to claim 3, wherein the predetermined operating speed is selected to comminute the items.	Any speed in any blender can be selected to comminute the items. It is an inherent property of a blender. This claim element is anticipated by Wulf since Wulf discloses in its background that a user "may hit a slow button, wait a while, hit a faster speed, wait, hit yet a faster speed, etc" and "may have to stop the blending process to dislodge ice or to assure the ice is coming into contact with the blades." (Wulf Col. 2:12-22.)

(5) Claim 5:

Claim 5	**Anticipated by Kolar**
5. The cycle according to claim 4, wherein the predetermined operating time period is selected to maintain contact of the cutter assembly with the items during operation of the cutter assembly at the predetermined operating speed.	It is anticipated by Kolar because throughout both the background and the specification of Kolar discuss determining different operating cycles for different food/drinks.

Claim 5	**Anticipated by Piland**
5. The cycle according to claim 4, wherein the predetermined operating time period is selected to maintain contact of the cutter assembly with the items during operation of the cutter assembly at the	It is anticipated by Piland when throughout the specification of Piland it discusses different operating mode.

predetermined operating speed.	

Claim 5	Anticipated by Wulf
5. The cycle according to claim 4, wherein the predetermined operating time period is selected to maintain contact of the cutter assembly with the items during operation of the cutter assembly at the predetermined operating speed.	Wulf discloses "examples of other routines are shown in FIGS. 25-27. These figures show example preprogrammed routines 264, 266, and 268 for making powdered drinks, batter, and milkshakes, respectively. Although the shown processes have been found to work well for their intended purposes, it can be understood that the process shown are examples and variations of blender routines may produce similar results." (Wulf. Col. 14:42-50.)

(6) Claim 6:

Claim 6	Anticipated by Kolar
6. The cycle according to claim 1, wherein step B comprises continuously reducing the operating speed of the cutter assembly.	Figure 6 of Kolar from t_2 to t_3 shows a continuous reduction of speed.

Claim 6	Anticipated by Piland
6. The cycle according to claim 1, wherein step B comprises continuously reducing the operating speed of the cutter assembly.	Figure 12, pattern c and Figure 13B show continuous reduction of speed.

Claim 6	Anticipated by Wulf
6. The cycle according to claim 1, wherein step B comprises continuously reducing the operating speed of the cutter assembly.	Throughout its specification, for example in Figures 25-27, Wulf discusses the change of the motor speed and reverse direction. The change of motor speed would involve continuously reducing the speed of the cutter assembly.

(7) Claim 7:

Claim 7	Anticipated by Kolar
7. The cycle according to claim 1, wherein step B comprises terminating power to the motor to reduce the operating speed of the cutter assembly.	It is anticipated by Kolar to reduce the speed of the cutter by terminating the power because Kolar has a program mode for user to customize the operating cycle.

Claim 7	Anticipated by Piland
7. The cycle according to claim 1, wherein step B comprises terminating power to the motor to reduce the operating speed of the cutter assembly.	The use of the term “energization” in the discussion of autopulse mode in Piland (Col. 13:1-15:54) means that the embodiment may control the speed of the motor and cutter by limiting the power to the motor.

Claim 7	Anticipated by Wulf
7. The cycle according to	It is anticipated by Wulf to reduce the speed of the

claim 1, wherein step B comprises terminating power to the motor to reduce the operating speed of the cutter assembly.	cutter by terminating the power.

(8) Claim 8:

Claim 8	Anticipated by Kolar
8. The cycle according to claim 7, wherein reducing the operating speed of the cutter assembly allows the items in the container to settle around the cutter assembly.	It is inherent for any blender that reducing the speed of the cutter allows the items to settle around the container.

Claim 8	Anticipated by Piland
8. The cycle according to claim 7, wherein reducing the operating speed of the cutter assembly allows the items in the container to settle around the cutter assembly.	It is inherent for any blender that reducing the speed of the cutter allows the items to settle around the container.

Claim 8	Anticipated by Wulf
8. The cycle according to claim 7, wherein reducing the operating speed of the cutter assembly allows	It is inherent for any blender that reducing the speed of the cutter allows the items to settle around the container.

the items in the container to settle around the cutter assembly.	

(9) Claim 9:

Claim 9	Anticipated by Kolar
9. A method of processing food items in a blender, the blender comprising a motor, a container for holding items for processing, and a cutter assembly located within the container and operably coupled to the motor whereby the motor effects the movement of the cutter assembly, the method comprising:	Preamble should not be limiting. Moreover, the subject matter of Kolar is a blender. (*See* Kolar Col. 3:57-65.)
automatically controlling a rotational speed of the cutter assembly to effect a pulsing of the speed of the cutter assembly wherein each pulse comprises:	The blenders disclosed in Kolar contain different default blend programs. (Kolar Col. 7:7-8:23; Fig. 9.) The user may also customize the drink programs. (*Id.*) One type of blend program is called "pulse blend cycle." (*Id.* at Col. 8:13-15; Fig. 9.)
(A) operating the cutter assembly in a constant speed phase, where the operating speed of the cutter assembly is maintained at a predetermined operating	Figure 6 of Kolar shows a constant speed phase, such as from t_1 to t_2. The speed could be in accordance with the default blend programs or user customized. (Kolar Col. 7:7-8:23; Fig. 9.) Hence, the speed is predetermined. At a high speed, it is inherent that at least some of the food items will be suspended above the cutter assembly.

speed until at least some of the food items are suspended above the cutter assembly;	
(B) reducing the operating speed of the cutter assembly during a deceleration phase, where the speed of the cutter assembly is reduced from the operating speed to a predetermined settling speed to allow at least some of the food items to settle around the cutter assembly,	Figure 6 of Kolar shows a deceleration phase, such as from t_2 to t_3. At a low speed, it is inherent that the low speed will allow at least some of the food items to settle around the cutter.
wherein the settling speed is less than the operating speed and greater than zero; and	Figure 6 of Kolar shows that the lower speed, such as from t_3 to t_4, is lower than other speeds but is greater than zero.
(C) accelerating the operating speed of the cutter assembly during acceleration phase, where the speed of the cutter assembly is increased from the settling speed to the operating speed until the food items are suspended above the cutter assembly.	Figure 6 of Kolar shows that the acceleration phase can be from 0 to t_1 and from t_4 to t_5.

Claim 9	**Anticipated by Piland**

9. A method of processing food items in a blender, the blender comprising a motor, a container for holding items for processing, and a cutter assembly located within the container and operably coupled to the motor whereby the motor effects the movement of the cutter assembly, the method comprising:	Preamble should not be limiting. Moreover, the subject matter of Piland is a blender, which has a motor, a container for holding items, a cutter located within the container and operably coupled to the motor. (*See* Piland Col. 3:42-52.)
automatically controlling a rotational speed of the cutter assembly to effect a pulsing of the speed of the cutter assembly wherein each pulse comprises:	Piland discloses a blender with different operating modes. (Piland Title.) One operating mode is called the "autopulse mode." (Piland Col. 13:3-5.) "Unlike the manual pulse mode, the pulsing takes place automatically and the operator is not required to repeatedly depress and release a speed selection switch." (*Id*. at Col. 13:5-7.)
(A) operating the cutter assembly in a constant speed phase, where the operating speed of the cutter assembly is maintained at a predetermined operating speed until at least some of the food items are suspended above the cutter assembly;	Figure 12 of Piland shows a series of alternation of high speed and low speed. Pattern a and b in Figure 12 clearly shows a constant speed phase. The autopulsing mode is pre-programmed and stored in ROM (*see* Piland Col. 13:2-15:52), thus the speed is predetermined. At a high speed, it is inherent that at least some of the food items will be suspended above the cutter assembly.
(B) reducing the operating speed of the cutter assembly during a	Pattern c of Figure 12 of Piland shows a deceleration phase. In patterns a and b, when the speed changes from high speed to a low speed, the cutter must

deceleration phase, where the speed of the cutter assembly is reduced from the operating speed to a predetermined settling speed to allow at least some of the food items to settle around the cutter assembly,	undergo a deceleration phase. At a low speed, it is inherent that the low speed will allow at least some of the food items to settle around the cutter.
wherein the settling speed is less than the operating speed and greater than zero; and	Piland discloses, "The second speed may be … some speed greater than zero." (Piland at Col. 14:8-9.) The second speed is slower than the first speed. (*Id*. at Col. 14:3-7.)
(C) accelerating the operating speed of the cutter assembly during acceleration phase, where the speed of the cutter assembly is increased from the settling speed to the operating speed until the food items are suspended above the cutter assembly.	Pattern d of Figure 12 of Piland shows an acceleration phase. In patterns a and b, when the speed changes from low speed to a high speed, the cutter must undergo an acceleration phase. At a high speed, it is inherent that at least some of the food items will be suspended above the cutter assembly.

Claim 9	**Anticipated by Wulf**
9. A method of processing food items in a blender, the blender comprising a motor, a container for holding items for processing, and a cutter assembly located within the container and	Preamble should not be limiting. Moreover, the subject matter of Wulf is a blender, which has a motor, a container for holding items, a cutter located within the container and operably coupled to the motor. (*See* Wulf Fig. 3.)

operably coupled to the motor whereby the motor effects the movement of the cutter assembly, the method comprising:	
automatically controlling a rotational speed of the cutter assembly to effect a pulsing of the speed of the cutter assembly wherein each pulse comprises:	The blender in Wulf is "programmed with various motor commands (e.g., direction of rotation, speed, duration, reversing of rotation, oscillation, etc.) designed to achieve a particular result." (Wulf Col. 14:7-10.) One example of pulsings is the routine to make Salsa, which comprises a high speed forward pulse for 1 second followed by a high speed reverse pulse by 1 second for 30 times. (*Id*. at Col. 14:20-35.) Since the routine is pre-programmed, it is operated automatically when the routine is selected.
(A) operating the cutter assembly in a constant speed phase, where the operating speed of the cutter assembly is maintained at a predetermined operating speed until at least some of the food items are suspended above the cutter assembly;	Figure 25 of Wulf shows a high speed for 15 seconds, which is a constant speed phase. The high speed, despite unspecified, is part of the pre-programmed routine and, thus, is predetermined. (*See* Wulf Col. 14:7-10.) At a high speed, it is inherent that at least some of the food items will be suspended above the cutter assembly.
(B) reducing the operating speed of the cutter assembly during a deceleration phase, where the speed of the cutter assembly is reduced from the operating speed to a predetermined settling	Figure 25 of Wulf shows a low speed for 5 seconds is followed by a high speed of 15 seconds. The process of reducing speed must undergo a deceleration phase. Wulf also discloses in its background that a user "may have to stop the blending process to dislodge ice or to assure the ice is coming into contact with the blades." (Wulf Col. 2:17-19.) This discloses the idea that a low speed is used for the items to settled around of the

speed to allow at least some of the food items to settle around the cutter assembly,	cutter assembly.
wherein the settling speed is less than the operating speed and greater than zero; and	Figure 25 of Wulf shows a low speed for 5 seconds. The term "low" means it is greater than zero but is less than the high speed.
(C) accelerating the operating speed of the cutter assembly during acceleration phase, where the speed of the cutter assembly is increased from the settling speed to the operating speed until the food items are suspended above the cutter assembly.	In Figure 25 of Wulf, after the low speed for 5 seconds, it is followed by another high speed for 15 seconds. The process of increasing speed must undergo an acceleration phase. At a high speed, it is inherent that at least some of the food items will be suspended above the cutter assembly.

(10) Claim 10:

Claim 10	Anticipated by Kolar
10. The method according to claim 9, wherein steps A, B, and C are sequentially repeated until at least one of the cycle automatically ending and the user manually ending the cycle.	Kolar discloses, "The chosen drink program is executed and selected program characteristics such as current motor speed and remaining time are displayed in step 102. While the drink program is executing in block 103 a check is repeatedly made to determine if the user has selected another button to override the remainder of the drink program." (Kolar Col. 8:4-12.) Thus, the cycle can be ended automatically or upon user's manual overriding command.

Claim 10	Anticipated by Piland
10. The method according to claim 9, wherein steps A, B, and C are sequentially repeated until at least one of the cycle automatically ending and the user manually ending the cycle.	Piland discloses, "the operator programs a run time then pulsing of the motor terminates after the programmed time interval has elapsed. If a programmed run time is not selected then the pulsing of the motor continues until the operator actuates the OFF switch 16." (Piland Col. 13:12-17.) Hence, Piland discloses the cycle can end automatically or manually.

Claim 10	Anticipated by Wulf
10. The method according to claim 9, wherein steps A, B, and C are sequentially repeated until at least one of the cycle automatically ending and the user manually ending the cycle.	Figures 25-27 of Wulf show that the cycle can be automatically ended. The routine that works particularly well for salsa (Col. 14:20-30) will also automatically ends after repeat of 29 times. Wulf discloses a pause/resume witch that may be pressed by the user to temporarily stop the blender operation (Col. 17:50-63), indicating the cycle can be manually ended.

(11) Claim 11:

Claim 11	Anticipated by Kolar
11. The method according to claim 9, wherein step A comprises maintaining the predetermined operating speed for a predetermined operating time period.	Figure 6 of Kolar shows different time intervals from t_1 to t_8. All of the time intervals are predetermined.

Claim 11	Anticipated by Piland
11. The method according to claim 9, wherein step A comprises maintaining the predetermined operating speed for a predetermined operating time period.	Piland discloses "the motor may be energized during first intervals T1 (FIG. 12) of one second…." (Piland Col. 13:8-10.)

Claim 11	Anticipated by Wulf
11. The method according to claim 9, wherein step A comprises maintaining the predetermined operating speed for a predetermined operating time period.	Wulf discloses, for example in Figure 25, a forward high speed for 15 seconds. This means the predetermined operating speed is maintained for a predetermined time period – 15 seconds.

(12) Claim 12:

Claim 12	Anticipated by Kolar
12. The method according to claim 11, wherein the predetermined operating speed is selected to comminute the items.	Any speed in any blender can be selected to comminute the items. It is an inherent property of a blender.

Claim 12	Anticipated by Piland
12. The method according to claim 11, wherein the predetermined operating speed is selected to	Any speed in any blender can be selected to comminute the items. It is an inherent property of a blender.

comminute the items.	

Claim 12	Anticipated by Wulf
12. The method according to claim 11, wherein the predetermined operating speed is selected to comminute the items.	Any speed in any blender can be selected to comminute the items. It is an inherent property of a blender. This claim is anticipated by Wulf since Wulf discloses in its background that a user "may hit a slow button, wait a while, hit a faster speed, wait, hit yet a faster speed, etc" and "may have to stop the blending process to dislodge ice or to assure the ice is coming into contact with the blades." (Wulf Col. 2:12-22.)

(13) Claim 13:

Claim 13	Anticipated by Kolar
13. The method according to claim 12, wherein the predetermined operating time period is selected to maintain contact of the cutter assembly with the items during operation of the cutter assembly at the predetermined operating speed.	It is anticipated by Kolar because throughout both the background and the specification of Kolar discuss determining different operating cycles for different food/drinks.

Claim 13	Anticipated by Piland
13. The method according to claim 12, wherein the predetermined operating time period is selected to maintain contact of the	It is anticipated by Piland because throughout the specification of Piland it discusses different operating mode.

cutter assembly with the items during operation of the cutter assembly at the predetermined operating speed.	

Claim 13	Anticipated by Wulf
13. The method according to claim 12, wherein the predetermined operating time period is selected to maintain contact of the cutter assembly with the items during operation of the cutter assembly at the predetermined operating speed.	Wulf discloses "examples of other routines are shown in FIGS. 25-27. These figures show example preprogrammed routines 264, 266, and 268 for making powdered drinks, batter, and milkshakes, respectively. Although the shown processes have been found to work well for their intended purposes, it can be understood that the process shown are examples and variations of blender routines may produce similar results." (Wulf. Col. 14:42-50.)

(14) Claim 14:

Claim 14	Anticipated by Kolar
14. The method according to claim 12, wherein the predetermined operating time period is selected to operate the cutter assembly until the food items are suspended above the cutter assembly.	For any blender, when the cutter is rotating, no matter at what speed, some of the food items will be suspended above the cutter assembly. This is inherently true for any blender.

Claim 14	Anticipated by Piland

14. The method according to claim 12, wherein the predetermined operating time period is selected to operate the cutter assembly until the food items are suspended above the cutter assembly.	For any blender, when the cutter is rotating, no matter at what speed, some of the food items will be suspended above the cutter assembly. This is inherently true for any blender.

Claim 14	Anticipated by Wulf
14. The method according to claim 12, wherein the predetermined operating time period is selected to operate the cutter assembly until the food items are suspended above the cutter assembly.	For any blender, when the cutter is rotating, no matter at what speed, some of the food items will be suspended above the cutter assembly. This is inherently true for any blender.

(15) Claim 15:

Claim 15	Anticipated by Kolar
15. The method according to claim 9, wherein step B comprises continuously reducing the operating speed of the cutter assembly.	Figure 6 of Kolar from t_2 to t_3 shows a continuous reduction of speed.

Claim 15	Anticipated by Piland

15. The method according to claim 9, wherein step B comprises continuously reducing the operating speed of the cutter assembly.	Figure 12, pattern c and Figure 13B show continuous reduction of speed.

Claim 15	Anticipated by Wulf
15. The method according to claim 9, wherein step B comprises continuously reducing the operating speed of the cutter assembly.	Throughout its specification, for example in Figures 25-27, Wulf discusses the change of the motor speed and reverse direction. The change of motor speed would involve continuously reducing the speed of the cutter assembly.

(16) Claim 16:

Claim 16	Anticipated by Kolar
16. The method according to claim 9, wherein step B comprises terminating power to the motor to reduce the operating speed of the cutter assembly.	It is anticipated by Kolar to reduce the speed of the cutter by terminating the power because Kolar has a program mode for user to customize the operating cycle.

Claim 16	Anticipated by Piland
16. The method according to claim 9, wherein step B comprises terminating power to the motor to reduce the operating	The use of the term "energization" in the discussion of autopulse mode in Piland (Col. 13:1-15:54) means that the embodiment may control the speed of the motor and cutter by limiting the power to the motor.

speed of the cutter assembly.	

Claim 16	Anticipated by Wulf
16. The method according to claim 9, wherein step B comprises terminating power to the motor to reduce the operating speed of the cutter assembly.	It is anticipated by Wulf to reduce the speed of the cutter by terminating the power.

VIII. CONCLUSION:

For the foregoing reasons, *inter partes* review of all claims (1-16) of U.S. Patent No. 7,581,688 is respectfully requested.

Respectfully submitted,

TROJAN LAW OFFICES
By

June 2, 2014

/R. Joseph Trojan/
R. Joseph Trojan, Reg. No. 34,264
Attorney for Petitioner Homeland Housewares, LLC

CERTIFICATE OF SERVICE ON PATENT OWNER

UNDER 37 C.F.R. § 42.105(a)

Pursuant to 37 C.F.R. §§ 42.8(e) and 42.105(b), the undersigned certifies that a complete and entire copy of this Petition for Inter Partes Review and all support exhibits were provided via mail, postage prepaid, to the Patent Owner by serving the correspondence address of record for the '688 Patent:

WHIRLPOOL CORPORATION - MD 3601

2000 NORTH M63

BENTON HARBOR MI 49022

Respectfully submitted,

TROJAN LAW OFFICES
By

June 2, 2014 /R. Joseph Trojan/

R. Joseph Trojan, Reg. No. 34,264
Attorney for Petitioner Homeland Housewares, LLC