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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/307,532	11/30/2011	Joseph S. Santner	508593	7972
53609	7590	11/05/2014	EXAMINER	
REINHART BOERNER VAN DEUREN P.C. 2215 PERRYGREEN WAY ROCKFORD, IL 61107			SINGH, AMIT K	
			ART UNIT	PAPER NUMBER
			3742	
			NOTIFICATION DATE	DELIVERY MODE
			11/05/2014	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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REINHART BOERNER VAN DEUREN P.C.  
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*In re* Application of: Santer et al.  
Serial No.: 13/307,532  
Filed: November 30, 2011  
Docket: 508593  
Title: LASER ASSISTED MACHINING SYSTEM  
FOR CERAMICS AND HARD MATERIALS

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:  
: DECISION ON PETITION TO  
: REVIEW RESTRICTION  
: REQUIREMENT UNDER  
: 37 CFR 1.144  
:

This is a decision on the petition filed on August 29, 2014 in which petitioner requests withdrawal of the restriction requirement promulgated on September 20, 2013 and repeated and made final in the office action of June 3, 2014. The petition is considered pursuant to 37 CFR 1.181, and no fee is required.

The petition is **dismissed**.

A review of the prosecution history shows that:

1. On September 20, 2013 a restriction requirement was made between Group I: claims 1-8, drawn to a method, classified in class 219, subclass, 121.72; Group II: claims 9-19 and 28-42, drawn to an apparatus, classified in class 219, subclass 121.82; and Group III: claims 20-27, drawn to an apparatus of a computer-readable medium, classified in 700, subclass 166.
2. On October 10, 2013, the applicant elected, with traverse, the Group II invention, claims 9-19 and 28-42.
3. On June 3, 2014, the examiner issued a first action on the merits with the elected claims 9-19 and 28-42. The restriction requirement was made final and the non-elected claims 1-8 and 20-27 were withdrawn from consideration.
4. In response, the applicant filed a petition to withdraw the restriction requirement of September 20, 2013 between Groups I, II and III stating that the examiner has not met the test under MPEP 806.05(e).

5. In response to the non-final office action mailed June 3, 2014, the applicant filed a Rule 111 amendment on August 29, 2014.

### Discussion

After consulting with the examiner, the restriction requirement between Group I and Group III is withdrawn. Claims 1-8 and 20-27 will be grouped together and designated as Group I for any future prosecution and for the discussion below.

Under 35 U.S.C. 121, the issue in the case is whether or not the method/controller-readable medium claims 1-8 and 20-27 are restrictable from the apparatus claims 9-19 and 28-42 under MPEP § 806.05(e). Process and apparatus for its practice can be shown to be distinct inventions, if either or both of the following can be shown: (A) that the process as claimed can be practiced by another materially different apparatus or by hand; or (B) that the apparatus as claimed can be used to practice another materially different process.

On pages 2-5 of the petition, petitioner argues that the restriction requirement given under MPEP 806.05(e) is improper because petitioner believes the examiner did not properly articulate the apparatus as claimed is capable of being used to practice another materially different process nor that the method claims could be practiced by a different apparatus.

A careful review of the claims does show that the inventions of Groups I and II were related as process and apparatus for its practice. The apparatus claims 9-19 and 28-42 clearly can be used to practice another materially different process. For example, the claimed apparatus can be used to practice laser surgery in which the surgical equipment could be gripped or mechanically supported as desired. With respect to claim 9, the laser can be applied to tissue for removal from the body. The heating will be inherent and a surgeon can estimate the temperature from the tissue's appearance. Furthermore, laser sources can also be applied to heat treatment in a selective manner by quickly heating the desired portions of a component while leaving areas which are supposed to remain unhardened. The controller and laser heating arrangement can read on a laser diode with its power supply and laser diode controller. Material property data can be stored tissue properties. The computer is capable to recommend/direct the surgical path/approach and can recommend a dwell time at a particular tissue location based on the tissue properties and can ensure by machine vision that the surgical path is unobstructed. With respect to claim 28, the claimed structure can be a part of a laser diode surgical support structure that can include more than one laser and a heating measuring device.

The claimed method/controller-readable medium claims 1-8 and 20-27 can also be carried out by a different apparatus such as automated or computerized welding equipment. For example, with respect to claim 1, a computer can store a computer model for the workpiece and related information. The computer can recommend the dwell time or the time the laser beam is permitted to stay at a given point based on the workpiece orientation, a laser-based welding equipment can accomplish cutting.

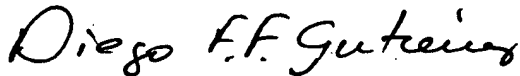
Since the various disclosed and claimed inventions are patentably distinct in accordance with MPEP §803<sup>1</sup> and §806.05(e)<sup>2</sup>, this restriction requirement is proper

### Conclusion

In summary, the restriction requirement between Groups I and III is withdrawn and those two groups will be combined in any future divisional applications filed. The restriction requirement between Group II and Group I is proper and remains. Accordingly, claims 1-8 and 20-27 remain subject to the restriction requirement and are withdrawn from consideration. The requested withdrawal of restriction requirement for all claims will not be granted.

The application is being forwarded to the examiner via the Supervisory Patent Examiner of Art Unit 3742 for preparation of an Office action in response to the applicant's Rule 111 amendment filed on August 29, 2014. Any request for reconsideration of this decision must be submitted within TWO (2) MONTHS from the mail date of this decision, 37 CFR 1.181(f). No extension of time under 37 CFR 1.136(a) is permitted. The reconsideration request should include a cover letter entitled "Renewed Petition under 37 CFR 1.181". Any inquiry regarding this decision should be directed to Julie Brockett, Quality Assurance Specialist, at (571) 272-0206.

PETITION DISMISSED.



Diego F. Gutierrez, Director  
Technology Center 3700

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<sup>1</sup> 803 [R-3] Restriction — When Proper ---- Under the statute, the claims of an application may properly be required to be restricted to one of two or more claimed inventions only if they are able to support separate patents and they are either independent (MPEP § 802.01, § 806.06, and § 808.01) or distinct (MPEP § 806.05 - § 806.05(j)). If the search and examination of all the claims in an application can be made without serious burden, the examiner must examine them on the merits, even though they include claims to independent or distinct inventions.

<sup>2</sup> MPEP § 806.05(e) [R-5] Process and Apparatus for Its Practice/Process and apparatus for its practice can be shown to be distinct inventions, if either or both of the following can be shown: (A) that the process as claimed can be practiced by another materially different apparatus or by hand; or (B) that the apparatus as claimed can be used to practice another materially different process.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Joseph S. Santner et al.

Art Unit: 3742

Application No.: 13/307,532

Examiner: Amit K. Singh

Filed: November 30, 2011

For: LASER ASSISTED MACHINING  
SYSTEM FOR CERAMICS AND  
HARD MATERIALS

**PETITION TO DIRECTOR UNDER 37 CFR 1.144  
FROM A RESTRICTION REQUIREMENT**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In response to the Office Action dated June 3, 2014, wherein a Restriction Requirement relative to pending claims 1-42 was made final, the Petitioner presents the following Petition to the Director requesting the reversal of the Requirement. The Petitioner solicits the Director to reverse aforementioned Restriction Requirement, and direct the Examiner to examine all pending claims 1-42 in a single application.

<b><i>CERTIFICATE OF TRANSMISSION UNDER 37 CFR 1.8</i></b>			
I hereby certify that this Petition to Director Under 37 CFR 1.144 from a Restriction Requirement and all accompanying documents are, on the date indicated below, <input checked="" type="checkbox"/> being transmitted to the United States Patent and Trademark Office via the Electronic Filing System.			
<i>Name (Print/Type)</i>	Miranda Branscomb		
<i>Signature</i>	/Miranda Branscomb/	<i>Date</i>	August 29, 2014

*REMARKS*

Claims 1-42 are currently pending, and were subject to a Restriction Requirement made final in the June 3, 2014, Office Action. The Petitioners petition the Director to reverse this Restriction Requirement, and direct the Examiner to examine each of claims 1-42 in a single application.

1. On September 20, 2013, the Examiner issued an Office Action (hereinafter "Office Action") with a Restriction Requirement between Group I corresponding to claims 1-8, Group II corresponding to claims 9-19 and 28-42, and Group III corresponding to claims 20-27.

2. On October 10, 2013, the Petitioners elected, with traverse, the claims of Group II. The Petitioners also traversed on the ground that the test under MPEP § 806.05(e) relied on to justify restriction had not been met, *inter alia*.

3. On June 3, 2014, the Examiner maintained the Restriction Requirement, making the same final, maintaining that the test under MPEP § 806.05(e) has in fact been met.

4. In making the Restriction Requirement it is stated at page 2 of the Office Action that Groups I-III are related as process and apparatus for its practice. MPEP § 806.05(e) is then cited for the proposition that the method of Group I can be practiced by another and materially different apparatus such as automated welding equipment. It is also stated that the apparatus of Group II can be used to practice a materially different process such as "cooking in a container," and that the apparatus of Group III can be used to practice a materially different process such as practicing/storing steps of cooking in a commercial facility. The Petitioners submit that the foregoing rationales are in error.

5. The Petitioners respectfully submit that the Office Action does not establish that the method of Group I could be practiced by welding equipment so as to meet the requirements of MPEP § 806.05(e). Claim 1 requires, *inter alia*:

*inputting into a controller, dynamic computer models in machine readable format for the workpiece, the finished part, the machining arrangement, and the laser heating arrangement, the dynamic computer models all being related to a common reference system, describing the physical shape and all potential movement and orientation of the models with respect to the common reference system;*

*inputting material property data in machine readable format into the computer for the workpiece and machining arrangement, including thermal and optical material properties of the workpiece and desired machining temperature data;*

*inputting laser and pyrometer operating parameters for the laser heating arrangement in machine readable format into the controller, with the laser operating parameters including input and output power, line-of-sight coordinates and beam configuration parameters for each laser of the one or more lasers, and the pyrometer operating parameters including input and output operating parameters of the pyrometer arrangement;*

6. There is no indication in the Office Action or evidence of record that such steps could be performed by "welding equipment." Further, the category of "welding equipment" is so broad that it is quite clear that many conventional welding systems could not in fact perform such steps. For example, a conventional spot welding device has no means for inputting laser and pyrometer data, or any dynamic computer models.

7. The Examiner has thus erred in concluding that the method of Group I could be practiced by "welding equipment" and the test under MPEP § 806.05(e) has not been met. The Petitioners thus solicit the Director to withdraw the current Restriction Requirement for at least this reason.

8. The Petitioners also respectfully submit that the Group II or Group III apparatus claims could not be used "to practice cooking in a container" or "to practice/store steps of cooking in a commercial facility." The claims of Group II require, *inter alia*:

*a controller, and the laser heating arrangement;*

*the computer containing dynamic computer models in machine readable format for the workpiece, the finished part, the machining arrangement, and the laser heating arrangement, the dynamic computer models all being related to a common reference system, describing the physical shape and all potential movement and orientation of the models with respect to the common reference system;*

*the computer also containing material property data in machine readable format for the workpiece and machining arrangement, including thermal and optical material properties of the workpiece and desired machining temperature data;*

*the controller further containing laser and pyrometer operating parameters for the laser heating arrangement in machine readable format, with the laser operating parameters including input and output power, line-of-sight coordinates and beam configuration parameters for each laser of the one or more lasers, and the pyrometer operating parameters including input and output operating parameters of the pyrometer arrangement;*

9. The Petitioners are unaware, nor has the Examiner shown any such "cooking in a container" process that would involve an apparatus that includes a computer containing dynamic computer models in machine readable format for the workpiece, the finished part, the machining arrangement, and the laser heating arrangement.



10. Further, the Petitioners are absolutely unaware of any laser assisted machining system capable of "cooking food in a container" or any recognition in the art that such machining centers are also utilized in the food industry.

11. The Petitioners respectfully submit, therefore, that the Examiner has erred in concluding that the apparatuses of Groups I and II could be used for cooking food in a container, and thus the test under MPEP § 806.05(e) has not been met for this additional reason. The Petitioners thus petition the Director to withdraw the instant Restriction Requirement.

12. It is also stated at page 2 of the Office Action at paragraph 3 that Restriction is also proper for several other reasons, including because Group III is related to Group II as an "apparatus to cooperate with the apparatus."

13. The rationale of "an apparatus to cooperate with the apparatus" is not a recognized test for restriction under MPEP §§ 806.05(a)-(j). The Examiner maintains in the June 3, 2014, Office Action that "an apparatus to cooperate with the apparatus" is a test under MPEP § 806.05(e). The Petitioners submit that such an assertion is in error. The text of MPEP § 806.05f(e) makes no reference to such a test.

14. The Restriction Requirement is thus legally deficient as it is premised upon a test not recognized by MPEP § 806.05(a)-(j). The Petitioners thus respectfully petition the Director to withdraw the Restriction Requirement for this reason.

15. The Petitioners also petition the Director to withdraw the Restriction Requirement because the Examiner has erred in making the same final by concluding that "an apparatus to cooperate with the apparatus" is a test under MPEP § 806.05(e) to justify restriction.

In re Appln. Of: Joseph S. Santner et al.  
Application No.: 13/307,532

Extension of Time and Fee Deficiency

Petitioners believe that no extension of time is required. However, this conditional petition is being made to provide for the possibility that Petitioners have inadvertently overlooked the need for a petition and fee for extension of time. If any additional fee is required, or any overpayment is made, in connection with this communication please charge or credit deposit account No. 50-3505.

Respectfully submitted,

/Michael J. Baima/

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Date: August 29, 2014