503400565 07/21/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3447199

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
NEAL E. FEARNOT	11/20/2012
PETER S. MCKINNIS	11/20/2012
SARAH ROBBINS	11/20/2012
YUN ZHOU	11/20/2012

RECEIVING PARTY DATA

Name:	MUFFIN INCORPORATED
Street Address:	1400 CUMBERLAND AVENUE
City:	WEST LAFAYETTE
State/Country:	INDIANA
Postal Code:	47906

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14719367

CORRESPONDENCE DATA

Fax Number: (317)637-7561

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 317-634-3456

Email: docketdept@uspatent.com
Correspondent Name: CHRISTOPHER A. BROWN

Address Line 1: WOODARD, EMHARDT, MORIARTY, MCNETT ET AL

Address Line 2: 111 MONUMENT CIRCLE, SUITE 3700

Address Line 4: INDIANAPOLIS, INDIANA 46204

ATTORNEY DOCKET NUMBER:	022107-000160
NAME OF SUBMITTER:	CAROL A. THOMAS
SIGNATURE:	/Carol A. Thomas/
DATE SIGNED:	07/21/2015

Total Attachments: 7

source=MP-1020 Assignment#page1.tif source=MP-1020 Assignment#page2.tif

PATENT 503400565 REEL: 036141 FRAME: 0632

source=MP-1020 Assignment#page3.tif	
source=MP-1020 Assignment#page4.tif	
source=MP-1020 Assignment#page5.tif	
source=MP-1020 Assignment#page6.tif	
source=MP-1020 Assignment#page7.tif	

PATENT REEL: 036141 FRAME: 0633

Neal E. Fearnot, of 1311 E 500 N, West Lafayette, Indiana 47906, United States; Peter S. McKinnis, of 200 Cedar Hollow Court, West Lafayette, Indiana 47906, United States; Sarah Robbins, of 5244 Lariat Lane, Lafayette, Indiana 47905, United States and Yun Zhou of 3345 Humboldt Street, West Lafayette, Indiana 47906, United States, hereafter referred collectively the "Assignor," either singularly or collectively as appropriate, has made certain inventions in

DEVICES AND METHODS FOR THREE-DIMENSIONAL INTERNAL ULTRASOUND USAGE,

hereinafter referred to as the "Inventions," invented by the Assignor and as, at least in part, disclosed, described, claimed, and/or intended to be in United States Provisional Patent Application Nos. 61/713,172, filed October 12, 2012 and 61/727,680, filed November 17, 2012, hereinafter referred to collectively as the "Application." In the event the application number and/or filing date of the Application are not known and/or written above at the time this Assignment is executed, the Assignor hereby authorizes and requests the firm of Woodard, Emhardt, Moriarty, McNett & Henry LLP of 111 Monument Circle, Suite 3700, Indianapolis, Indiana 46204-5137 to insert above the date and/or application number of the Application when officially known.

For good, valuable and sufficient consideration to the Assignor, the receipt of which is hereby acknowledged, do hereby grant, assign, sell and transfer unto **Muffin Incorporated**, a **corporation** of **Indiana**, having a principal place of business at **1400 Cumberland Way**, **West Lafayette**, **IN 47906**, **United States**, hereinafter referred to as the "Assignee," the Intellectual Property and all rights related thereto, hereinafter referred to as the "Intellectual Property and Related Rights", which include but are not limited to the following items (i) through (v) and (a) through (c):

- (i) all of the entire worldwide right, title and interest in, to and under the Intellectual Property,
- (ii) all of the entire worldwide right, title and interest in, to and under future developments, including improvements, in the Intellectual Property,
- (iii) all of the entire worldwide right, title and interest, together with all rights of priority, in, to and under the Application,
- (iv) all of the entire worldwide right, title and interest, including the beneficial interest, together with all rights of priority, in, to and under, including the right to file, any and all applications based on or arising from the Intellectual Property, future developments in the Intellectual Property, or the Application, which include, but are not limited to, provisional, non-provisional, utility, design, industrial design, international, national/regional phase, plant and petty patent applications, and any and all divisions, continuations, continuations-in-part, substitutes, extensions, re-examinations and reissues thereof, and
- (v) all of the entire worldwide right, title and interest, together with all rights of priority and rights of action for infringement, in, to and under any and all patents based on or arising from the Intellectual Property, future developments in the Intellectual Property, or the Application, which include, but are not limited to, non-provisional, utility, design, industrial design, international, national/regional phase, plant, and petty patent applications, and any and all divisions, continuations, continuations-in-part, substitutes, extensions, re-examinations and reissues thereof,

in all countries, United States and foreign, and under any applicable treaty or convention, which include but are not limited to

(a) all past, present and future rights and privileges, legal, equitable and otherwise, including, to the extent permissible by law, rights and privileges related to the Assignor's attorney-client relationship,

Page 1 of 7

- (b) all past, present and future causes of action, including causes of action for infringement and misappropriation, whether committed or accruing before, on or after the effective date of this assignment, and
- (c) all past, present and future remedies for damages and profits,

as related to the Intellectual Property, future developments in the Intellectual Property, the Application and any and all applications or patents based on or arising from the Intellectual Property, future developments in the Intellectual Property, or the Application, to be held and enjoyed by the Assignee as fully and entirely as the same would have been held and enjoyed by the Assignor if this assignment and sale had not been made.

To the extent not granted, assigned, sold or transferred to the Assignee by the above and for the good and valuable consideration acknowledged above, the Assignor agrees to and does hereby grant, assign, sell and transfer unto the Assignee any and all future developments, including improvements, in the Intellectual Property and Related Rights immediately and automatically upon existence.

The Assignor hereby COVENANTS AND WARRANTS that the Assignor has not executed and shall not execute any writing or perform any act whatsoever conflicting with this Assignment. This covenant and warranty includes, but is not limited to, a representation to the Assignee that no grant, assignment, sale, transfer, mortgage, license, encumbrance or other agreement affecting any portion, in whole or in part, of the Intellectual Property and Related Rights has been made to any party by the Assignor, and that the full right and authority to convey the Intellectual Property and Related Rights as herein expressed is possessed by the Assignor.

The Assignor hereby agrees that the Assignor will, in view of the good and valuable consideration acknowledged above, perform the following as relating to the Intellectual Property, the Application and the portions of any and all applications or patents based on or arising from the Intellectual Property or the Application in all countries, United States and foreign, and under any applicable treaty or convention:

- (1) communicate any and all facts and information known to the Assignor respecting the Intellectual Property and Related Rights to the Assignee and the Assignee's affiliates, legal representatives and successors;
- sign, execute and deliver any and all other papers necessary or desirable to perfect the title to all of the entire right and interest, together with all rights of priority in, to and under the Intellectual Property, the Application and any and all applications or patents based on or arising from the Intellectual Property or the Application, including all rightful oaths, declarations, assignments, powers of attorney and other related papers, in and for the use of the Assignee and the Assignee's affiliates, legal representatives and successors;
- (3) testify in any legal or quasi-legal proceedings regarding any and all facts known to the Assignor relating to the Intellectual Property and Related Rights as requested by the Assignee and the Assignee's affiliates, legal representatives and successors;
- (4) act in the benefit of the Assignee, including not engaging in any acts resulting in intentional or unintentional waiver of attorney-client privileges, as relating to the Intellectual Property and Related Rights without express written authorization by the Assignee, and, in the event that there is a waiver of attorney-client privileges, assert that any partial waiver of attorney-client privileges does not constitute a total waiver of attorney-client privileges; and
- (5) generally do everything reasonable to aid in securing, maintaining and enforcing proper protection for the Intellectual Property and Related Rights in the Assignee and the Assignee's affiliates, legal representatives and successors.

The Assignor hereby agrees that any partial waiver of the Assignor's attorney-client rights and privileges as related to the Intellectual Property and Related Rights, whether inadvertent, willful, past, present or future, will not constitute a total waiver of the Assignor's attorney-client rights and privileges.

PATENT REEL: 036141 FRAME: 0635

The Assignor hereby authorizes and requests the Honorable Commissioner for Patents to issue any aforesaid patent to the Assignee and the Assignee's affiliates, legal representatives and successors.

This Assignment embodies the complete and final agreement between the parties on this subject and shall be governed and controlled as to validity, enforcement, interpretation, construction, effect and in all other respects by the laws of the United States, and in particular in accordance with the laws of the State of Indiana, without reference to the conflict of laws principles thereof. It is further understood that Assignor consents to the courts of Indiana in connection with any dispute arising under the Assignment.

If any provision or term of this Assignment shall be ruled invalid or unenforceable by a court of competent jurisdiction, such decision shall not affect the validity or enforceability of the remaining provisions and terms of this Assignment, which remaining provisions and terms shall continue in full force and effect as if this Assignment had been executed with the invalid portion eliminated.

Assignee: MUFFIN INCORPORATED

Assignee hereby accepts the sale, transfer and assignment of the Intellectual Property and Related Rights.

Neul E. Frank
Signature (Assignee)
Printed Name: Neal E Fearnot
Title: President
Company: Muffin Incorporated
Date: 20 day of November, 2012

Assignor:	Macl E. Flarmot Neal E. Fearnot
STATE OF INDIANA)
COUNTY OF TIPPECANOE): SS)
Assignor, Neal E. Fearnot, who exec	nd for the County and State, personally appeared the above-named outed the foregoing Assignment in my presence and acknowledged devoluntary act and deed for the uses and purposes therein set forth
WITNESS my hand and Notarial Seal	this 20 day of November, 2012.
	Susan M. Dunsmace Notary Public
	Printed Name: Susan M. Dunsmore
	Resident of Tippecanoe County
My Commission Expires:	
7 21 2013	
July 21, 2013	

Assignor:

Peter S. McKinnis

STATE OF INDIANA)):SS COUNTY OF TIPPECANOE

Before me, a Notary Public, in and for the County and State, personally appeared the above-named Assignor, Peter S. McKinnis, who executed the foregoing Assignment in my presence and acknowledged the execution thereof as their free and voluntary act and deed for the uses and purposes therein set forth and expressed.

WITNESS my hand and Notarial Seal this 20 day of November

Notary Public

Printed Name: Susan M. Dunsmore

Resident of Tippe canol County

My Commission Expires:

July 21, 2013

Assignor:	Seel Rull	
	Sarah Robbins	

)):SS STATE OF INDIANA COUNTY OF TIPPECANOE

Before me, a Notary Public, in and for the County and State, personally appeared the above-named Assignor, Sarah Robbins, who executed the foregoing Assignment in my presence and acknowledged the execution thereof as their free and voluntary act and deed for the uses and purposes therein set forth and expressed.

WITNESS my hand and Notarial Seal this 20 day of November, 2012.

Notary Public

Printed Name: Susan M. Dunsmore

Resident of Tippe canoe (p. County

My Commission Expires:

Assignor:

STATE OF INDIANA)):SS COUNTY OF TIPPECANOE

Before me, a Notary Public, in and for the County and State, personally appeared the above-named Assignor, Yun Zhou, who executed the foregoing Assignment in my presence and acknowledged the execution thereof as their free and voluntary act and deed for the uses and purposes therein set forth and expressed.

WITNESS my hand and Notarial Seal this 20 day of November, 2012.

Notary Public

Printed Name: Susan M. Dinsmore

Resident of Tippe canoe

My Commission Expires:

Page 7 of 7

RECORDED: 07/21/2015

890603

PATENT REEL: 036141 FRAME: 0640