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NOTICE OF ALLOWANCE AND FEE(S) DUE

99185 7590 08/07/2017
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EXAMINER

MARCETICH, ADAM M

ART UNIT

PAPER NUMBER

3761

DATE MAILED: 08/07/2017

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/966,669	12/11/2015	Walid N. ABOUL-HOSN	06-01506US06	5519

TITLE OF INVENTION: GUIDABLE INTRAVASCULAR BLOOD PUMP AND RELATED METHODS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$960	\$0	\$0	\$960	11/07/2017

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

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1300 MacArthur Boulevard
Mahwah, NJ 07430

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

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nonprovisional	UNDISCOUNTED	\$960	\$0	\$0	\$960	11/07/2017

EXAMINER	ART UNIT	CLASS-SUBCLASS
MARCETICH, ADAM M	3761	600-016000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) The names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ Applicant certifying micro entity status. See 37 CFR 1.29
- ☐ Applicant asserting small entity status. See 37 CFR 1.27
- ☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____



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99185	7590	08/07/2017	EXAMINER	
Getinge US Legal Shared Services 1300 MacArthur Boulevard Mahwah, NJ 07430			MARCETICH, ADAM M	
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3761

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Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 14/966,669	Applicant(s) ABOUL-HOSN ET AL.	
	Examiner Adam Marcetich	Art Unit 3761	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 28 June 2017.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
3. ☒ The allowed claim(s) is/are 14-41. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

- a) ☐ All b) ☐ Some *c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 2. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>4 (four)</u> | 6. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| 3. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 7. <input type="checkbox"/> Other _____. |
| 4. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. | |

/Adam Marcetich/
Primary Examiner, Art Unit 3761

EXAMINER'S COMMENT / REASONS FOR ALLOWANCE

Notice of Pre-AIA or AIA Status

The present application is being examined under the pre-AIA first to invent provisions.

Examiner's Comment

The amendments filed 28 June 2017 have overcome objections to claims 20, 24, 28 and 31-33 and rejections of claims 14 and 22 under 112.1.

Terminal Disclaimer

The terminal disclaimer filed on 28 June 2017 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of **Aboul-Hosn; Walid N. et al. (US 9561314)** has been reviewed and is accepted. The terminal disclaimer has been recorded.

Allowable Claims

Claims 14-41 are allowed.

Reasons for Allowance

Applicant's arguments filed 28 June 2017 have been considered and are persuasive. Examiner advances additional reasons for allowance.

All references on the four recently filed IDS forms have been considered. The references include a petition for Inter Partes Review for US 7022100, submitted by Abiomed, Inc. (herein "IPR-100"). The IPR-100 at least cites two references, **Aboul-**

Hosn; Walid (WO 9902204 A1, later published as US 20060100565) and Siess; Thorsten (US 5921913), and asserts that claims 16-17 of US 7022100 are unpatentable over Aboul-Hosn in view of Siess (IPR-100, p. 3-4). Both Aboul-Hosn and Siess have been considered in light of the present application.

Aboul-Hosn discloses an intravascular blood pump system (§ [0048], Fig. 1, fluid transport system 10; § [0083], FIG. 23, stabilization apparatus 410 and pump 420), comprising:

- a rotor (§ [0052], Fig. 2, rotor 70 is connected to a drive shaft 81);
- a catheter coupled to a proximal end of the intravascular blood pump (§ [0082], catheter 428 linking the device to the exterior of the body);
- a rotor shroud at least partially disposed about the rotor hub (§ [0050], elongated cylindrical body 40);
- a cannula coupled to a distal end of the intravascular blood pump (§ [0048], inner cannula 20);

However, Aboul-Hosn lacks several critical feature of the invention, including (1) a purge lumen extending through the catheter, (2) an elongate lumen associated with the cannula and sized to receive a guide wire and (3) first ports and second ports establishing fluid communication between a cannula lumen and an exterior region of a cannula, wherein the second port is spaced apart from and located distal to the at least one first port.

Aboul-Hosn does not teach or suggest a purge lumen, and at most describes a cable assembly in broad terms (§ [0082], Fig. 23, catheter 428). Significantly, Figs. 21, 23 and 24 are the only embodiments that depict a blood pump suited to be guided through vasculature. The remaining embodiments rely on a protruding or bulky pump that remains outside vasculature, and conveys blood through a loop (§ [0074], FIG. 13, pump 50 that is kept outside the skin of a patient 94; § [0085], FIGS. 25-28, pump source 250 which may be a centrifugal, axial, or mixed flow pump).

Additionally, none of the embodiments of Aboul-Hosn are compatible with the claimed cannula having first and second ports. Aboul-Hosn conducts fluid between a distal end of a cannula (§ [0048], distal opening 22 of the inner cannula 20) and a distal end of a rotor shroud (§ [0048], distal opening 32 of the outer conduit 30). The cannula has only a distal opening and additional side openings (§ [0049], distal opening 22 and plurality of openings 27). Fig. 2 shows that distal opening 22 and plurality of openings 27 overlap, and therefore do not provide a second port spaced from the first port.

Siess; Thorsten (US 5921913) fails to remedy the above noted deficiencies of Aboul-Hosn. At most, Siess discloses a technique for guiding an intravascular blood pump via a guidewire (col. 3, lines 55-58, microaxial pump 10 is advanced possibly with the aid of a guide wire). However, Siess does not explain whether the guidewire passes through an elongate lumen sized smaller cross sectionally than the cannula lumen. Importantly, Siess does not depict the guidewire to show how it interacts with the other components of the pump.

Also cited recently, **Flameng, Willem, ed.** (Temporary Cardiac Assist with An Axial Pump System, Steinkopff Verlag Darmstadt, Springer-Verlag New York, 1991) discloses a technique for delivering an intravascular blood pump to a location in the heart (p. 61, O. Jegaden, Clinical results of Hemopump Support in surgical cases; ¶ 5, Hemopump insertion technique). This procedure threads a guidewire through a distal hole of a cannula (p. 61-62, ¶ 6, a guide wire and a 5F catheter are passed through the distal hole of the cannula). However, Flameng lacks an elongate lumen dimensioned such that the guide wire passes coaxially through the elongate lumen. Instead, Flameng depicts the lumen as a side-hole passing through a wall of a catheter (p. 61, Fig. 1, right side image shows at least three perforations in distal tip of cannula). This arrangement forces the guidewire to pass through the guidewire lumen at an angle, and not coaxially. In other words, the elongate lumen is formed by a hole in the cannula wall, and its axis extends perpendicular to the axis of the cannula. When a guidewire passes through the elongate lumen, it crosses at an angle as depicted in Fig. 1.

A recently filed IDS includes a petition for Inter Partes Review for US 8888728, submitted by John M. Collins (herein "IPR-728"). IPR-728 cites Aboul-Hosn and Siess, and further cites **Yock; Paul G. (US 5061273)** (IPR-728, p. 153). In light of the present application, Yock lacks an intravascular blood pump and instead describes how to deliver an angioplasty catheter (col. 1, lines 28-38; col. 2, lines 16-30). Yock discloses several examples of an elongate lumen that extends parallel to a main cannula lumen (col. 7, lines 64-67, Fig. 10, sleeve 66 formed of a suitable material such as plastic is

secured to the exterior of the flexible tubular member 62; col. 8, lines 42-46, Fig. 11, sleeve 73; col. 9, lines 18-21, Fig. 12, sleeve 81; col. 9, lines 53-59, Fig. 13, sleeve 96).

However, Yock is configured to guide a cannula with a substantially constant diameter (Figs. 10-13, tubular member 62 / 77 / 87 and fiber optic bundle 72 are depicted as cylinders with substantially constant diameter). In contrast, the only totally intravascular embodiment in Aboul-Hosn presents an enlarged diameter segment. Yock does not explain how or whether the elongate lumen of Figs. 10-13 would be compatible with the shortened length of Aboul-Hosn's intravascular pump.

IPR-728 additionally cites two references from the same inventor, **Wampler; Richard K. et al. (US 4846152) and Wampler; Richard K. (US 4625712)** (IPR-728 p. 155-157). Neither of the Wampler patents describe a feature analogous to the claimed elongate lumen.

IPR-728 cites Wampler as teaching a purge lumen (p. 88-89). However, Wampler '712 does not appear to contain the referenced Fig. 14, and has only numbered Figs. 1-4 (col. 2, lines 40-53). Wampler '152 describes a purge lumen (col. 4, lines 16-18, purge fluid flows through passage 50, a particulate filter 52, and passages 54,56,58,60 and 62 between the shaft 38 and the stator 25 to the bearing 49). However, this feature of Wampler does not address the missing elongate lumen of Aboul-Hosn.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to:

Tel 571-272-2590
Fax 571-273-2590
Email Adam.Marcetich@uspto.gov

The Examiner can be reached 8:00am to 4:00pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on 571-272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Adam Marcetich/
Primary Examiner, Art Unit 3761