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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/267,956	09/16/2016	Kenneth Tyler	13087.0003-02000	1088
148457 CC3D 215 E. Lakeside Avenue Coeur d'Alene, ID 83814	7590 12/12/2017		EXAMINER YI, STELLA KIM	
			ART UNIT 1742	PAPER NUMBER
			NOTIFICATION DATE 12/12/2017	DELIVERY MODE 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):

ryan@continuouscomposites.com

Office Action Summary	Application No. 15/267,956	Applicant(s) Tyler, Kenneth	
	Examiner STELLA K YI	Art Unit 1742	AIA Status No

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

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 09/16/2016

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ 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.

4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☒ Claim(s) 1-20 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☒ Claim(s) 1-20 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, 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.

Application Papers

10) ☐ The specification is objected to by the Examiner.

11) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12) ☐ 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)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date 09/16/2016

3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____

4) ☐ Other: _____

U.S. Patent and Trademark Office

PTOL-326 (Rev. 11-13)

Office Action Summary

Part of Paper No./Mail Date 20171207

Notice of Pre-AIA or AIA Status

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

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim(s) 1-5, 7-9, 11-12, and 15-20 is/are rejected under pre-AIA 35 U.S.C. 102b as being anticipated by JANG et al. (2003/0236588-of record).

Regarding claims 1-2, 7, 8, 11, 12, 15-20, JANG et al. discloses a method of manufacturing a three-dimensional object comprising:

directing a curable liquid material, a continuous strand material, and a filler material to a nozzle;

discharging from the nozzle a path of composite material onto a base member (40) (anchor) [0074]

moving the nozzle during discharging to create the three-dimensional object [0072]-[0074]; [0076]; and

curing the curable liquid material in the path of composite material with a heating provision that is attached to, or contained in, the nozzle to control the advancement of curing reactions [0074]; Figs.4-5.

Regarding claims 3-5, JANG et al. discloses the curing device includes at least one UV light [0044].

Regarding claim 9, JANG et al. discloses the filler material includes fibers [0072].

4. Claim(s) 1, 6-7, 10-14, and 18 is/are rejected under pre-AIA 35 U.S.C. 102b as being anticipated by CRUMP (5,340,433-of record).

Regarding claims 1, 7, 11, 12, 13, 14, and 18, CRUMP discloses a method of manufacturing a three-dimensional object, comprising:

dispensing fluid material or strand (180) from a nozzle (112) wherein the strands (180) are anchored on to the substrate (108) and the nozzle (112) is moved in a predetermined pattern along “X”, “Y”, and “Z” axes (Fig.12, C20:L61-C21:L5).

CRUMP further discloses that each strand (180) solidifies in space as it is dispensed from the nozzle (112) while the nozzle is being moved (C22:L67-68).

CRUMP discloses in Figs.7-8 that have multiple supply passages into which multiple rods or flexible strands of different compositions may be directed to and discloses that various materials may be used that include a variety of thermoplastic resins, metals, and metal alloys (C6:L65-68). Furthermore, CRUMP discloses the fluid material or strand may also comprise chemical setting materials (curable material). Therefore, CRUMP discloses directing a curable liquid material and a continuous strand material to the nozzle to form a composite material that will comprise the continuous strand material at least partially coated with a chemical setting material (curable material) as claimed.

Regarding claim 6, CRUMP discloses the nozzle orifice has a diameter of 0.054 inches (1.54 mm) (C13:L29-30).

Regarding claim 10, CRUMP discloses the continuous strand material is hollow (C15:L58-60).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to STELLA KIM YI whose telephone number is (571)270-5123. The examiner can normally be reached on Monday-Friday 8:00-5:00 EST.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. 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.

STELLA YI
Examiner
Art Unit 1742



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