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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	7590	03/12/2018	EXAMINER	
CC3D			YI, STELLA KIM	
215 E. Lakeside Avenue			ART UNIT	
Coeur d'Alene, IDAHO 83814			PAPER NUMBER	
			1742	
			NOTIFICATION DATE	
			DELIVERY MODE	
			03/12/2018	
			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 12/20/2017.

☐ 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) 1-14 and 17 is/are allowed.

7) ☒ Claim(s) 15-16 and 18-20 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 _____.

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

4) ☐ Other: _____.

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PTOL-326 (Rev. 11-13)

Office Action Summary

Part of Paper No./Mail Date 20180306

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

1. 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.

2. Claim(s) 15-16 is/are rejected under pre-AIA 35 U.S.C. 102b as being anticipated by JANG et al. (2003/0236588-of record).

Regarding claims 15-16, 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.

3. Claim(s) 18-20 is/are rejected under pre-AIA 35 U.S.C. 102b as being anticipated by CRUMP (5,340,433-of record).

Regarding claim 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; Fig.12).

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 claims 19-20, CRUMP discloses in Fig.6 that multiple dispensing materials are simultaneously discharged through the nozzle to form three-dimensional shapes wherein the strands are interlocked as illustrated in Fig. 12.

Allowable Subject Matter

1. Claims 1-14 and 17 allowed.

Response to Arguments

1. Applicant's arguments, see Remarks, filed 12/20/2017, with respect to claims 1-14 and 17 have been fully considered and are persuasive. The rejection of claims 1-14 and 17 has been withdrawn. However, applicant's arguments filed 12/20/2017 with respect to claims 15-16 and 18-20 have been fully considered but they are not persuasive.

Regarding claim 15, Applicant argues JANG does not teach or suggest "discharging from a nozzle a path of composite material containing a continuous strand material and a filler material at least partially coated with a curable liquid material". Examiner respectfully disagrees. JANG discloses such in paragraph 72.

Regarding claim 16, Applicant argues JANG does not teach or suggest that the curing device is aimed at a path of composite material. Examiner respectfully disagrees. JANG does disclose aiming the curing device at a path of composite material as illustrated in Fig. 4 wherein the heating elements surrounds the path of composite material.

Regarding claim 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; Fig.12).

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

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