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NOTICE OF ALLOWANCE AND FEE(S) DUE

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BAKER & MCKENZIE LLP
PATENT DEPARTMENT
1900 North Pearl Street
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EXAMINER

BRINSON, PATRICK F

ART UNIT

PAPER NUMBER

3753

DATE MAILED: 10/11/2018

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/675,579	08/11/2017	Pedro Gonzalez	10042468-50375149	2010

TITLE OF INVENTION: BRAIDED HOSE

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1000	\$0	\$0	\$1000	01/11/2019

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: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

Notice of AllowabilityApplication No.
15/675,579Applicant(s)
GONZALEZ ET AL.Examiner
Patrick F. BrinsonArt Unit
3753AIA (First Inventor to File)
Status
Yes**-- 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 amendment filed September 12, 2018.
☐ 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 1-21 and 24. 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. ☐ Notice of References Cited (PTO-892)
2. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
3. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
4. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 9/25/2018.
5. ☒ Examiner's Amendment/Comment
6. ☒ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/Patrick F. Brinson/
Primary Examiner, Art Unit 3753

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in an interview with Applicant's attorney, **Mr. Mark Dushek** on Tuesday, September 25, 2018.

The application has been amended as follows:

In the Claims:

Cancel claims 22 and 23.

REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance: After a review of the prior art of record, it is believed that the present invention is novel and non-obvious wherein no reference discloses a reinforced hose having a tube and a braided sleeve disposed about the outside of the tube, wherein the braided sleeve includes a plurality of bundles, with a bundle defined as a plurality of threads extending in the same path of a braiding pattern and at least one of the bundles

includes a first thread of a first material and a second thread of a second material different than the first material, as recited in claims 1 and 12. The U.S. 2010/0126617 to **Stroempl et al.** reference discloses a combination of materials to form the reinforcement layer, but does not specifically disclose the use of different materials within the same bundle.

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 **Patrick F. Brinson** whose telephone number is (571)272-4897. The examiner can normally be reached on M-F 7:30-3:00.

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, **Craig M. Schneider** can be reached on (571) 272-3607. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

IN THE CLAIMS

Please amend the claims as follows:

1. (Original) A reinforced hose, comprising:
a tube; and
a braided sleeve disposed about an outside of the tube, wherein
the braided sleeve includes a plurality of bundles, a bundle being defined as a plurality of
threads extending along a same path of a braiding pattern of the braided sleeve, and
at least one of the bundles includes a first thread of a first material and a second thread of
a second material different than the first material.
2. (Original) The reinforced hose of claim 1, wherein the first material is metallic.
3. (Original) The reinforced hose of claim 2, wherein the first material includes stainless
steel.
4. (Original) The reinforced hose of claim 2, wherein at least one of the first and second
materials includes aluminum.
5. (Original) The reinforced hose of claim 1, wherein the second material is non-
metallic.

6. (Original) The reinforced hose of claim 5, wherein the second material includes a polymer.

7. (Original) The reinforced hose of claim 5, wherein the second thread includes a monofilament selected from the group consisting of a polyester monofilament, a nylon monofilament, and any combination thereof.

8. (Original) The reinforced hose of claim 1, wherein the first thread is metallic and the second thread is non-metallic.

9. (Original) The reinforced hose of claim 1, further comprising a fitting coupled to an end of the tube and the braided sleeve.

10. (Original) The reinforced hose of claim 1, wherein
at least one of the bundles includes a plurality of metallic threads and a plurality of non-metallic threads, and
the metallic threads are arranged to alternate with the non-metallic threads.

11. (Original) The reinforced hose of claim 1, wherein the first thread and the second thread are a similar color.

12. (Original) A reinforced hose, comprising:

a tube; and

a braided sleeve disposed about an outside of the tube, wherein

the braided sleeve includes a plurality of bundles, a bundle being defined as a plurality of threads extending along a same path of a braiding pattern of the braided sleeve,

at least one of the bundles is a mixed bundle, a mixed bundle being defined as a bundle of threads including at least one thread of a first material and at least one thread of a second material different than the first material, and

a burst pressure of the reinforced hose is higher than a burst pressure of a hose without the at least one mixed bundle.

13. (Original) The reinforced hose of claim 12, wherein the first material is metallic.

14. (Original) The reinforced hose of claim 13, wherein the first material includes stainless steel.

15. (Original) The reinforced hose of claim 13, wherein the first material includes aluminum.

16. (Original) The reinforced hose of claim 12, wherein the second material is non-metallic.

17. (Original) The reinforced hose of claim 16, wherein the second material includes a polymer.

18. (Original) The reinforced hose of claim 16, wherein the second material includes a monofilament selected from the group consisting of a polyester monofilament, a nylon monofilament, and any combination thereof.

19. (Original) The reinforced hose of claim 12, wherein the first material is metallic and the second material is non-metallic.

20. (Original) The reinforced hose of claim 12, wherein the burst pressure of the reinforced hose is at least about 10% higher than the burst pressure of the hose without the at least one mixed bundle.

21. (Original) The reinforced hose of claim 12, wherein the burst pressure has a value of at least 1150 psi.

22. (Withdrawn - Currently Amended) An apparatus for manufacturing a braided hose, comprising:

a platform;

a guide disposed over an aperture in the platform and operable to direct a tube;

a plurality of bobbins disposed on the platform, the bobbins being respectively

operable to hold bundles of thread, and the bobbins being respectively operable to rotate about an axis; and

a motor coupled to the platform and operable to rotate the platform, wherein

at least one of the bobbins includes a metallic thread and a non-metallic thread, and

~~at least one of the bobbins includes a non-metallic thread~~

the apparatus is configured to braid a sleeve about an outside of a tube, a braiding pattern being provided by the bundles of the bobbins such that the threads of a respective bobbin extend along a same path of the braiding pattern.

23. (Withdrawn) The apparatus of claim 22, wherein each of the bobbins includes both metallic and non-metallic threads.

24. (New) The reinforced hose of claim 1, wherein the braided sleeve is disposed at an exterior surface of the reinforced hose.

TRADUCCION DE LAS REIVINDICACIONES OTORGABLES

US 15/675,579

1. (Original) Una manguera reforzada, que comprende:

un tubo; y

un manguito trenzado dispuesto alrededor de un exterior del tubo, en donde

el manguito trenzado incluye una pluralidad de mazos, un mazo se define como una pluralidad de hilos que se extienden a lo largo de una misma trayectoria de un patrón de trenzado del manguito trenzado, y

al menos uno de los mazos incluye un primer hilo de un primer material y un segundo hilo de un segundo material distinto al primer material.

2.(Original) La manguera reforzada de conformidad con la reivindicación 1, caracterizada porque el primer material es metálico.

3. (Original)La manguera reforzada de conformidad con la reivindicación 2, caracterizada porque el primer material incluye acero inoxidable.

4. (Original) La manguera reforzada de conformidad con la reivindicación 2, caracterizada porque al menos uno del primer y segundo materiales incluye aluminio.

5. (Original)La manguera reforzada de conformidad con la reivindicación 1, caracterizada porque el segundo material no es metálico.

6. (Original) La manguera reforzada de conformidad con la reivindicación 5, caracterizada porque el segundo material incluye un polímero.

7. (Original) La manguera reforzada de conformidad con la reivindicación 5, caracterizada porque el segundo hilo incluye un monofilamento seleccionado del grupo que consiste de un monofilamento de poliéster, un monofilamento de nailon y cualquier combinación de los mismos.

8. (Original) La manguera reforzada de conformidad con la reivindicación 1, caracterizado porque el primer hilo es metálico y el segundo hilo no es metálico.

9. (Original) La manguera reforzada de conformidad con la reivindicación 1, caracterizada porque además comprende un accesorio acoplado a un extremo del tubo y al manguito trenzado.

10. (Original) La manguera reforzada de conformidad con la reivindicación 1, caracterizada porque:

al menos uno de los mazos incluye una pluralidad de hilos metálicos y una pluralidad de hilos no metálicos, y

los hilos metálicos se disponen para alternarse con los hilos no metálicos.

11. (Original) La manguera reforzada de conformidad con la reivindicación 1, caracterizada porque el primer hilo y el segundo hilo son de un color similar.

12. (Original) Una manguera reforzada, que comprende:

un tubo; y

un manguito trenzado dispuesto alrededor de un exterior del tubo, en donde

el manguito trenzado incluye una pluralidad de mazos, un mazo se define como una pluralidad de hilos que se extienden a lo largo de una misma trayectoria de un patrón de trenzado del manguito trenzado,

al menos uno de los mazos es un mazo mezclado, un mazo mezclado se define como un mazo de hilos que incluye al menos un hilo de un primer material y al menos un hilo de un segundo material distinto al primer material, y

una presión de ruptura de la manguera reforzada es mayor que una presión de ruptura de una manguera sin al menos un mazo mezclado.

13. (Original) La manguera reforzada de conformidad con la reivindicación 12, caracterizada porque el primer material es metálico.

14. (Original) La manguera reforzada de conformidad con la reivindicación 13, caracterizada porque el primer material incluye acero inoxidable.

15. (Original) La manguera reforzada de conformidad con la reivindicación 13, caracterizada porque el primer material incluye aluminio.

16. (Original) La manguera reforzada de conformidad con la reivindicación 12, caracterizada porque el segundo material no es metálico.

17. (Original) La manguera reforzada de conformidad con la

reivindicación 16, caracterizada porque el segundo material incluye un polímero.

18. (Original) La manguera reforzada de conformidad con la reivindicación 16, caracterizada porque el segundo material incluye un monofilamento seleccionado del grupo que consiste de un monofilamento de poliéster, un monofilamento de nailon y cualquier combinación de los mismos.

19. (Original) La manguera reforzada de conformidad con la reivindicación 12, caracterizada porque el primer material es metálico y el segundo material no es metálico.

20. (Original) La manguera reforzada de conformidad con la reivindicación 12, caracterizada porque la presión de ruptura de la manguera reforzada es al menos alrededor de 10% mayor que la presión de ruptura de la manguera sin al menos un mazo mezclado.

21. (Original) La manguera reforzada de conformidad con la reivindicación 12, caracterizada porque la presión de ruptura tiene un valor de al menos 1150 psi.

22. (Retirada) Un aparato para fabricar una manguera trenzada, que comprende:

una plataforma;

una guía dispuesta sobre una abertura en la plataforma y puede operarse para dirigir un tubo;

una pluralidad de bobinas dispuestas en la plataforma, las bobinas pueden operarse respectivamente para sostener mazos de hilo, y

las bobinas pueden operarse respectivamente para girar alrededor de un eje; y

un motor acoplado a la plataforma y que puede operarse para hacer girar la plataforma, en donde

al menos una de las bobinas incluye un hilo metálico, y

al menos una de las bobinas incluye un hilo no metálico.

23. (Retirada) El aparato de conformidad con la reivindicación 22, caracterizado porque cada una de las bobinas incluye tanto hilos metálicos como no metálicos.

24. (Nueva) La manguera reforzada de conformidad con la reivindicación 1, caracterizada porque el manguito trenzado está dispuesto en una superficie exterior de la manguera reforzada.