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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/404,525	01/04/2024	Robert B. Wilcox	118508/US02/ PCTNS/180639P	4785

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EXAMINER	
SAETHER, FLEMMING	

ART UNIT	PAPER NUMBER
3675	

NOTIFICATION DATE	DELIVERY MODE
10/02/2025	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):

uspatentmail@klgates.com

Office Action Summary	Application No. 18/404,525	Applicant(s) Wilcox et al.	
	Examiner FLEMMING SAETHER	Art Unit 3675	AIA (First Inventor to File) Status Yes

-- 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 7/16/2025.

☐ 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) 1-3,5,7-8,13 and 21-35 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) 1-3,5,7-8,13 and 21-35 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: _____.

Notice of Pre-AIA or AIA Status

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

Specification

The disclosure is objected to because of the following informalities: the disclosure continues to lack any reference to the related application.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 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 –
>
> (a)(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention.
>
> (a)(2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.

Claims 1, 2, 5, 8, 13, 21, 24, 30-33 and 35 are rejected under 35 U.S.C. 102(a)(1) as being anticipated by Makino (US 7,156,596). Makino discloses a blind fastener consisting of: a generally cylindrical elongated sleeve (3) having a sleeve diameter including a first end, a second end with a swage collar (14) having a collar diameter and a cavity therethrough with a cavity diameter; and a mandrel (5) including an enlarged portion (6) with a head diameter larger than the cavity diameter at a first end, a pull region (at 7) at a second end, a shank region intermediate the first and second ends with a thread (13) and comprising a shank diameter; wherein the pull region is shown to have a length less than 3

times the shank diameter at the major diameter of the shank (at 9). The no breakneck groove is a restation of the intended use of which Makino would be capable of and the fastener is configured to be installed in a bore with a diameter no greater than the fourth diameter. Since the claims do not put any structural limitations on the "pull region" it can be read as having any length including one which is less than 1 times the shank diameter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 25, 26 and are rejected under 35 U.S.C. 103 as being unpatentable over Makino as applied to claims 1 and 23 above and further in view of Yan (US 10,738,816). Makino does not disclose the length of the pull region no greater than 1 times the shank diameter nor the pull region with a single groove. Yan discloses a fastener including a mandrel (3) with a swage on collar (1) wherein the mandrel has a pull region at one end (Fig. 4) comprising a single groove (3.4) wherein the pull region has a length (K) less than 1 times a major shank diameter (3.2). Before the effective filing date of the claimed invention it would have been obvious for one of ordinary skill in the art to replace the pull region of Makino with a pull region a disclosed in Yan because Yan teaches the pull region as an improvement over a conventional pull regions for the reasons enumerated in column 2.

Claims 22 and 23 are rejected under 35 U.S.C. 103 as being unpatentable over Makino as applied to claim 1 above, and further in view of Denham (US 2005/020056). Makino does not disclose the shank

region with grooves. Denham discloses a blind fastener similar to Makino including a mandrel with a shank region but in Denham the shank region comprises grooves (17). Before the effective filing date of the claimed invention it would have been obvious for one of ordinary skill in the art to replace the thread of Makino with grooves because Denham teaches them as alternatives (p. [0025]).

Claims 7 and 27-29 are rejected under 35 U.S.C. 103 as being unpatentable over Makino as applied above, and further in view of Kendall (US 4,702,655). Makino does not discuss the material strengths of the fastener. Kendall discloses a fastener similar to Makino but teaches the mandrel to be made of an iron alloy with a hardness greater than Rockwell 45Hrc (column 3, paragraph beginning line 22). Before the effective filing date of the claimed invention it would have been obvious for one of ordinary skill in the art to make the mandrel of Makino of the same material as disclosed in Kendell because Kendall teaches the material to be well suited for blind fastener applications such as Makino.

Claim 34 is rejected under 35 U.S.C. 103 as being unpatentable over Makino in view of Yan as applied to claims 1 and 2 above, and further in view of Denham and Kendall. Makino in view of Yan does not disclose the shank region with grooves. Denham discloses a blind fastener similar to modified Makino including a mandrel with a shank region but in Denham the shank region comprises grooves (17). Before the effective filing date of the claimed invention it would have been obvious for one of ordinary skill in the art to replace the thread of modified Makino with grooves because Denham teaches them as alternatives (p. [0025]). Makino in view of Yan and Denham does not discuss the material strengths of the fastener. Kendall discloses a fastener similar to modified Makino but teaches the mandrel to be made of an iron alloy with a hardness greater than Rockwell 45Hrc (column 3, paragraph beginning line 22). Before the effective filing date of the claimed invention it would have been obvious for one of ordinary skill in the art to make the mandrel of modified Makino of the same material as

disclosed in Kendell because Kendall teaches the material to be well suited for blind fastener applications such as modified Makino.

Response to Remarks

The objections to the drawing and some of objections to the specification have been withdrawn. The specification continues to be objected to failing to reference a parent application.

The rejections over the Makino (US 7,156,569) have been maintained adapting applicants' new claim terminology and adopting a broad interpretation of the "pull region". Indeed, the claims do not put any structural limitation of the "pull region" so it is not required to be the entire length of the element 7 or even the length where it is engaged with the pull tool 26. In fact the "pull region" could be read as any length less than the shank diameter in which case there is no reliance on the drawings.

In regards to applicants' argument. Applicant argues the claim define over Makino (US 7,156,596) because it is not proper to rely on measuring the drawings when they are not disclosed as being to scale. In response, the drawings are not relied upon for any measurements but are only relied upon for what they clearly show. *In re Mraz,* 455 F.2d 1069, 173 USPQ 25 (CCPA 1972). In Makino there is no need to measure the shank and pull region to clearly see the pull region is less than 3.25 times the shank diameter even when the pull region is read as the entire length of element 7, and even more clearly when the pull region is read as the length of engagement with the tool 26.

Applicant argues the combination with Yan would not have been suggested to one skilled in the art because Yan is not a blind fastener but instead requires both sides of the structure. In response, the examiner agrees with applicants' understanding of Yan but Makino and Yan do have similarities in that

they both include a swage on collar so the person of ordinary skill in the art would have recognized Yan as relevant because of the similarities necessary to swage the collar.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FLEMMING SAETHER whose telephone number is (571)272-7071. The examiner can normally be reached M-F 8:30 - 7:00 eastern.

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, Christine Mills can be reached at 571-272-8322. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/FLEMMING SAETHER/
Primary Examiner, Art Unit 3675