

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

OLYMPIA TOOLS INTERNATIONAL, INC.,
Petitioner,
v.
JPW INDUSTRIES, INC.,
Patent Owner.

Case IPR2018-00388
Patent 9,079,464 B2

Before JOSIAH C. COCKS, ULRIKE W. JENKS, and
MICHAEL L. WOODS, Administrative Patent Judges.

JENKS, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Olympia Tools International, Inc. (“Petitioner”), filed a Petition requesting an *inter partes* review of claims 1, 3, 5–8, 12, and 21–25 of U.S. Patent No. 9,079,464 (Ex. 1001, “the ’464 patent”). Paper 1 (“Pet.”). JPW Industries, Inc. (“Patent Owner”) filed a Preliminary Response to the Petition. Paper 7 (“Prelim. Resp.”).

We have authority under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the Petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). Upon consideration of the arguments and evidence presented in the Petition and the Preliminary Response, we are not persuaded that Petitioner has established a reasonable likelihood that it would prevail in any of its challenges with respect to any of claims 1, 3, 5–8, 12, and 21–25 of the ’464 patent. Accordingly, we deny institution of an *inter partes* review of claims 1, 3, 5–8, 12, and 21–25.

A. *Related Proceedings*

Petitioner identifies district litigation involving claims 1, 3, 5–8, 12, and 21–25 of the ’464 patent in *JPW Industries, Inc., v. Olympia Tools International, Inc.*, United States District Court, Central District of California, No. 2:17-cv-07415. Pet. 2. Petitioner identifies no other related matters for *inter partes* review of the ’464 patent.

B. *The ’464 Patent (Ex. 1001)*

The ’464 patent issued from Application No. 13/301,359 (“the ’359 application”), filed on Nov. 21, 2011.

The '464 patent, entitled “Portable Work Holding Device and Assembly,” relates to a vise that is portable and can be mounted onto a vehicle hitch or onto a work surface with device support. Figure 7, reproduced below, shows a portable vise attached to a vehicle hitch.

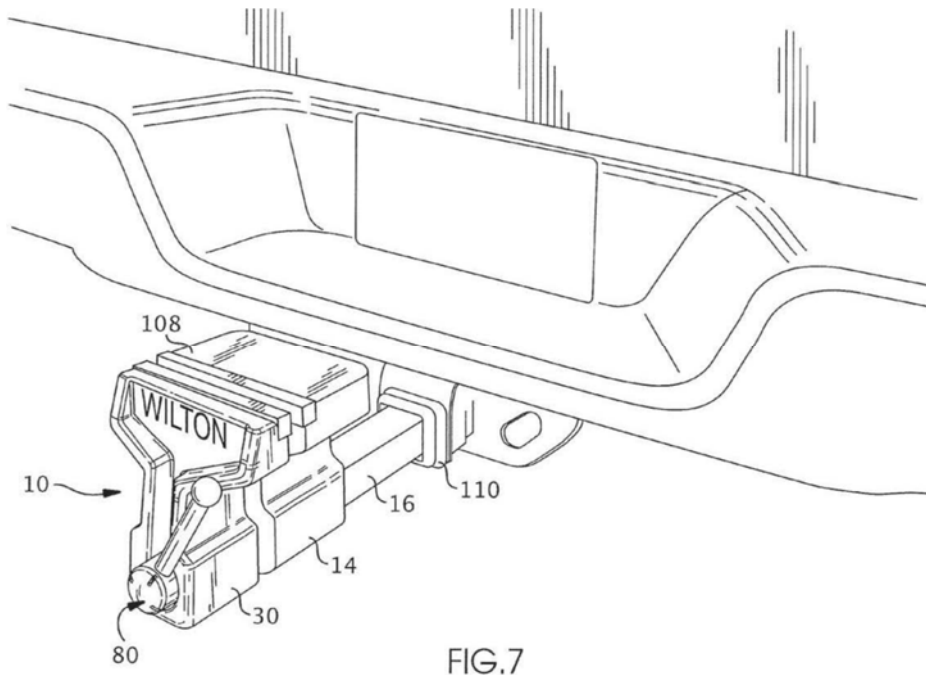
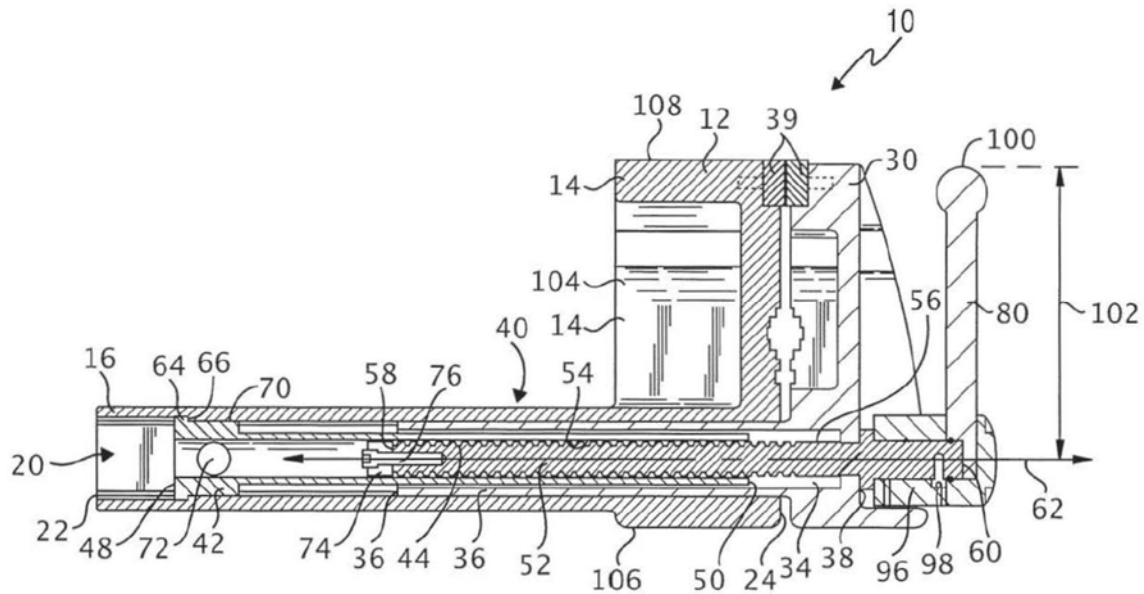


FIG.7

“FIG. 7 is a perspective view of an exemplary work holding device coupled to a vehicle receiver hitch.” Ex 1001, 2:33–34. First connection member 16 is inserted into vehicle receiver hitch 110, and secured by a pin. *Id.* at 5: 50–53. Holding device 10, includes stationary first jaw piece 12 (not identified in figure 7 above) having casting 14 and elongated first connection member 16 extending from a first end of the casting, and the device also includes second movable jaw piece 30. *Id.* at 3:15–39. First connection member 16 is a square tube extending from casting 14. *Id.* at 5: 55–56. First jaw piece 12 has casting 14 and an anvil surface 108. *Id.* at 5: 45–46. Holding device 10 includes handle 80 operatively coupled to spindle 52 (not shown in figure 7 above). *Id.* at 4:49–50. “Handle 80 is configured to be fixed in a locked

position to facilitate transporting work holding device 10, such as when work holding device 10 is coupled to a vehicle receiver hitch.” *Id.* at 4:55–58.

Figure 2, reproduced below, shows a cross section of the portable vise assembly.



“FIG. 2 is a cross-section view of the work holding device.” *Id.* at 2:23–24. Anvil surface 108 is raised above first jaw piece 12 and second jaw piece 30 to provide a work surface while mounted to the support. *Id.* at 5:45–48. Movable second jaw piece 30 includes elongated second connection member 32 (element not identified in figure 2 above but visible in figure 1) extending from a first end of second jaw piece 30. *Id.* at 3:37–39. Handle 80 is operatively coupled to spindle 52 and moves jaw piece 30 in and out from the assembly. *See id.* at 4:48 to 5:2.

Some of the other elements, shown in Figure 2 above, are identified as follows:

Elements 16, 20, 22, and 24: First connection member 16 is a two-inch square tube extending from casting 14. *Id.* at 5:55–56. First connection member 16 defines first passage 20 that extends between second end 22 and opposing first end 24. *Id.* at 3:19–21.

Elements 34, 36, and 38: Second passage 34 that extends between second end 36 and opposing first end 38. *Id.* at 3:42–44.

Element 40, 42, and 52: Spindle assembly 40 also includes spindle 52 operatively coupled to spindle nut 42. *Id.* at 3:6–7.

Elements 44, 48, and 50: Spindle nut 42 has first end 48 and opposing second end 50. *Id.* at 4:4–5. Helical thread 44 is formed on at least a portion of inner surface 46 of spindle nut 42. *Id.* at 4:2–3. Spindle nut 42 extends through first passage 20 and into second passage 34. *Id.* at 4:1–2.

Elements 54, 56, 58, and 60: Helical thread 54 is formed on at least a portion of outer surface 56 of spindle 52 along a length of spindle 52 between first end 58 and opposing second end 60 of spindle 52. *See id.* at 4:6–19.

C. Illustrative Claims

Claims 1, 3, 5–8, 12, and 22–25 of the '464 patent are challenged. Claims 1, 8, 23, and 24 are independent. Claims 1 and 23 of the '464 patent are illustrative and reproduced below:

1. A work holding device, comprising:
a first jaw piece having an elongated first connection member for connecting the work holding device to a support, the first connection member defining a first passage, the first

- connection member being configured as a generally square elongated tube shaped for mounting in a receiver hitch of a vehicle, the first connection member having a first end at the first jaw piece and a second end;
- a second jaw piece having an elongated second connection member positionable within the first passage and defining a second passage in communication with the first passage, the second connection member having a first end at the second jaw piece and a second end opposite the first end, the second passage being in communication with the first passage at the second end of the second connection member; and
 - a spindle assembly movably connecting the second jaw piece to the first jaw piece, the spindle assembly configured to move the second jaw piece with respect to the first jaw piece to create a clamping pressure when an object is placed between the first jaw piece and the second jaw piece, the second end of the second connection member being enclosed within the first connection member regardless of the position of the second jaw relative to the first jaw.

Ex. 1001, 7:2–27.

23. A portable work holding device assembly, comprising:
- a work holding device, comprising:
 - a first jaw piece having an elongated connection member for connecting the work holding device to a support, the elongated connection member including a generally square elongated tube that is shaped and configured to fit into a receiver hitch of a vehicle;
 - a second jaw piece; and
 - a spindle assembly movably connecting the second jaw piece to the first jaw piece, the spindle assembly comprising a threaded spindle rotatable to move the second jaw piece with respect to the first jaw piece; and
 - a plate assembly comprising:
 - a member including a plurality of walls defining a passage having a complementary cross-section to receive the elongated connection member; and

one or more brackets coupled to a corresponding wall of the plurality of walls of the member, the one or more bracket each defining one or more apertures to facilitate coupling the work holding device to a support surface.

Ex. 1001, 9:8–29.

D. The Prior Art

Petitioner relies upon the following prior art references:

Cornes	Cornes, US 2010/0072240 A1, published March 25, 2010	Ex. 1006
Long	Long, US 742,096, issued Oct. 20, 1903	Ex. 1007
Simpson	Simpson, US 2,841,035, issued May 13, 1955	Ex. 1008
Murray	Murray et al., US 2005/0082730 A1, published Apr. 21, 2005	Ex. 1009

Petitioner also relies upon the Declaration of Michael O'Banion.
Ex. 1003.

E. The Asserted Grounds of Unpatentability

Petitioner challenges the patentability of claims 1, 3, 5–8, 12, and 21–25 of the '464 patent on the following grounds. Pet. 7:

Claims Challenged	Basis	References
1, 3, 5–8, and 22–25	§ 102(b)	Cornes
23	§ 103(a)	Cornes
23	§ 103(a)	Cornes in view of Long <i>or</i> Murray
1, 3, 5–8, 22, 24, and 25	§ 103(a)	Cornes in view of Long
12	§ 103(a)	Cornes, Long, and Simpson

Claims Challenged	Basis	References
21	§ 103(a)	Cornes, Long, and Murray

II. ANALYSIS

A. Claim Construction

In an *inter partes* review, the Board interprets claim terms in an unexpired patent according to the broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); see *In re Cuozzo Speed Techs., LLC*, 136 S. Ct. 2131, 2142 (2016) (upholding the use of the broadest reasonable interpretation standard). Under that standard, and absent any special definitions, we give claim terms their ordinary and customary meaning, as would be understood by one of ordinary skill in the art at the time of the invention. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

We consider the meaning of the claim term “passage.” The ’464 patent does not specifically define the term “passage.” The ’464 patent describes:

[A] stationary first jaw piece 12 having a casting 14 and an elongated first connection member 16 extending from a first end of casting. . . . First connection member 16 defines a first passage 20, . . . that extends between a second end 22 and an opposing first end 24 of first connection member 16.

Ex. 1001, 3:15–22, see Fig. 2. This description makes clear that the passage runs from one end of the connection member to the opposing other end of the connection member. It also is apparent from the ’464 patent that by extending between the first and second ends (elements 24 and 22, respectively) of connection member 16, the passage is a continuous space

between those ends, that receives a spindle assembly that movably couples jaw pieces therein. *See, e.g., id.* at 3:9–13, 3:37–39, 4:1–2. The spindle assembly requires two pieces, a spindle nut 42 and a spindle 52, which are operatively coupled only after they are inserted from opposite ends through connection member 16. *See, e.g., id.* at 3:9–13, 3: 36–33, 4:1–2, 4:6–7, 5:53–54, Fig. 2.

The ordinary and customary meaning of the term “passage”¹ is “a way of exit or entrance: a road, path, channel, or course by which something passes” or “a corridor or lobby giving access to the different rooms or parts of the building.” When considering the ordinary and customary use of the term “passage” as read in light of the specification of the ’464 patent, we construe a “passage” to describe a tube having an opening on both ends so that it defines the path between the two opposing openings. In other words, we construe a “passage,” in the context of a “connection member defining a . . . passage,” to be, “a continuous open space extending from the first opening on one end of the connection member to a second opening at the opposing second end of the connection member.”

For purposes of this decision and on this record, no other claim terms require express construction. We note, however, that there is disagreement with respect to several claim terms between the two parties (*compare* Pet. 10–11, *with* Prelim. Resp. 4–6), but we do not address these disputed terms because we do not rely any of them in reaching our decision. *See Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011) (“[C]laim

¹ “passage.” Merriam-Webster Online Dictionary. <https://www.merriam-webster.com/dictionary/passage> (last visited May 7, 2018).

terms need only be construed ‘to the extent necessary to resolve the controversy’”) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

B. Ground 1: Anticipation by Cornes

Petitioner asserts that claims 1, 3, 5–8, and 22–25 of the ’464 patent are anticipated by Cornes. Pet. 27. Patent Owner counter argues that “Cornes does not disclose an ‘elongated first connection member.’” Prelim. Resp. 8. Specifically, Patent Owner asserts that Cornes’ “tube 36 is not connected to the first jaw piece” as required by the claims, “the first jaw piece instead is connected to receiving sleeve 33.” *Id.* Patent Owner contends that the combination of parts in Cornes does not provide a connection member having a first passage because plate 52 is welded between parts 33 and 36 and Cornes. *Id.* at 9.

For the reasons set forth below, we agree with Patent Owner that Petitioner does not identified sufficient evidence to support the positon that Cornes anticipates the claims.

1. Cornes (Ex. 1006)

Cornes discloses a vise that can be attached to the trailer hitch. Ex. 1006, Abstract. Figure 1 of Cornes is reproduced below:

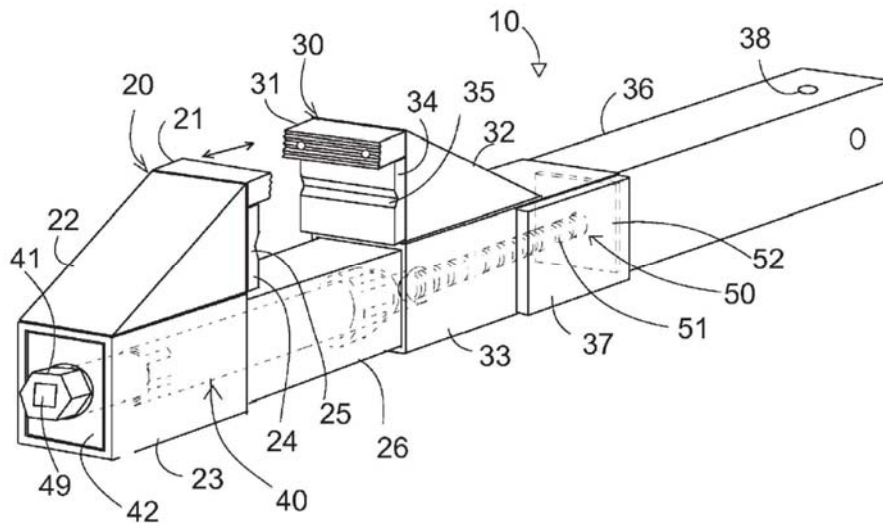


FIG. 1 is a perspective view of a vehicle-mounted vise showing the movable vise jaw attached to the stationary vise jaw which attaches to a vehicle trailer hitch receiver. *Id.* ¶ 24. Stationary vise jaw 30 further comprises stationary jaw 32 facing outwardly away from an outer end of the vise insertion tube 36. *Id.* ¶ 34. Stationary vise jaw 30 and movable vise jaw 20 have close tolerance fits between moving parts and are each sealed to prevent particles and moisture from penetrating into interior spaces preventing malfunction and prolonging the life of the device. *Id.* ¶ 40.

Fig. 3 is a perspective view of the individual parts of the stationary jaw of the vise.

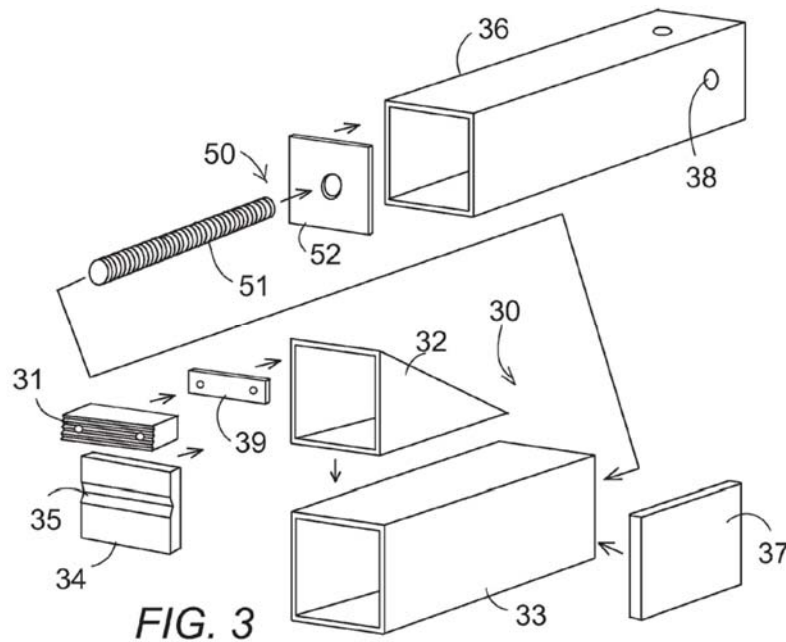


FIG. 3 shows the parts of the stationary vise jaw aligned for assembly.

Id. ¶ 26. Receiving sleeve 33 has an outer receiving opening in the outer face of the stationary jaw. *Id.* ¶ 35. Stationary jaw 32 is welded on top of receiving sleeve 33. *Id.* ¶ 34. Outer threaded stationary shaft 51 is inside receiving sleeve 33. *Id.* ¶ 35. Outer threaded stationary shaft 51 is welded to shaft receiving plate 52 and welded to vise insertion tube 36. *Id.* ¶ 35.

2. Discussion—Anticipation by Cornes

Claim 1

Petitioner asserts that Cornes discloses an elongated connection member for connecting the work holding device to the support. *Pet.* 27; *Id.* at 24 (citing Ex. 1003 ¶¶ 83–194). Petitioner relies on Cornes for disclosing receiving sleeve 33 and insertion tube 36 with the vise jaw 30 as meeting the limitation of the elongated first connection member. *Pet.* 27. Specifically, Petitioner relies on “[t]he receiving sleeve 33 is a squared tubular member and therefore defines a first passage therein.” *Id.*

Claim 1 requires a “first connection member defining a first passage.” Claim 1 also recites, “the first connection member having a first end at the first jaw piece and a second end.” Patent Owner contends that claim 1, thus, requires that the first connection member defines a first passage and that the connection member must include a connected first jaw piece. Prelim.

Resp. 8.

Patent Owner argues that Cornes’ “insertion tube 36 is not connected to the first jaw piece. . . . Instead, the first jaw piece is connected to receiving sleeve 33.” *Id.* Thus, it is Patent Owner’s view that insertion tube 36 and receiving sleeve 33 must be taken together to account for the claimed first connection member. According to Patent Owner, components 36 and 33 of Cornes are physically separated by a solid receiving plate, part number 52, which is welded between parts 33 and 36. *Id.* at 9 (citing Ex. 1006, [34], Fig. 3). Patent Owner, thus, asserts that the combination of Cornes’ components 33 and 36 does not define a connection member having a “first passage” as required in claim 1. Prelim. Resp. 9.

We agree with Patent Owner that Cornes does not satisfy the claimed “first connection member defining a first passage.” *Id.* As discussed above in the Claim Construction section (see II.A), a “passage” is “a continuous open space extending from the first opening on one end of the connection member to a second opening at the opposing second end of the connection member.” This is shown, for instance, in figure 2 of the ’464 patent, where passage 20 spans the length of member 16 between opening 24 of the stationary vise jaw and second end 22. See Ex. 1001, Fig. 2, see 3:19–20.

Cornes discloses a vise that can be inserted into a trailer hitch. See Ex. 1006, Figs. 1 and 2. Cornes discloses two components 33 and 36 that

are brought together to make up the shaft that is inserted into the trailer hitch. *See* Ex. 1006, Fig. 2. We agree with Patent Owner that Cornes further discloses that plate 52 is welded between components 33 and 36. *See* Ex. 1006 ¶ 35 (“a receiving sleeve 33 having an outer receiving opening in the outer face of the stationary jaw and an outer threaded stationary shaft 51 inside the receiving sleeve 33, which threaded stationary shaft 51 is welded to a shaft receiving plate 52 welded to the vise insertion tube 36”); *see also id.* at Fig. 2 (depicting the same). Sleeve 33 is not a passage because there is only one opening that serves as both the entrance and exit. Because Cornes does not disclose a passage spanning from the stationary jaw all the way to the end of insertion tube 36, we agree with Patent Owner that Cornes does not anticipate claim 1.

Thus, we agree with Patent Owner that the combination of components 33 and 36 of Cornes does not disclose the first passage element of the claim discussed in detail on pages 8–10 of Patent Owner’s Preliminary Response. Accordingly, we conclude that Petitioner has not established a reasonable likelihood it would prevail in showing claims 1, 3, and 5–7 of the ’464 patent are anticipated under 35 U.S.C. §102(b).

Claims 8 and 24

Independent claims 8 and 24 similarly recite a “first connection member defining a first passage.” *See* Ex. 1001, claims 8 and 24. For the same reasons discussed above for claim 1, we are not persuaded that that components 33 and 36 of Cornes meets the first passage limitation of these claims. Accordingly, we conclude that Petitioner has not established a reasonable likelihood it would prevail in showing claims 8, 22, 24, and 25 of the ’464 patent are anticipated under 35 U.S.C. §102(b) by Cornes.

Claim 23

Petitioner contends that independent claim 23 is anticipated by Cornes. Pet. 39–42, *see id.* at 24 (citing Ex. 1003 ¶¶ 83–194). Claim 23 recites a “spindle assembly comprising a threaded spindle rotatable to move the second jaw piece with respect to the first jaw piece.” Petitioner explains that the spindle assembly of Cornes is made up of tubular member 40 and threaded stationary shaft 51. *Id.* at 40. Petitioner explains that as universal nut driver 41 rotates threaded tubular member 40 relative to threaded stationary shaft 51, the movable vise jaw 20 adjusts relative to stationary vise jaw 30, and based on this movement, Cornes meets the claim limitation of “movably connecting the second jaw piece to the first jaw piece.” *Id.* Petitioner urges that under the broadest reasonable interpretation of “a threaded spindle rotatable” to move the second jaw piece with respect to the first jaw piece requires that the combined spindle assembly is rotatable and moves the second jaw piece relative to the first, which is met by Cornes threaded tubular member 40. *Id.* at 41.

The phrase at issue is “the spindle assembly comprising a threaded spindle rotatable to move the second jaw piece with respect to the first jaw piece.” Ex. 1001, claim 23. The question is whether the term “rotatable” modifies the spindle or the spindle assembly. Generally, a modifier should be placed next to the word it describes.² Here, the term rotatable is placed

² “Chicago Manual of Style: 5.78 Basic rules: An adjective that modifies a noun, noun phrase, or pronoun usually precedes it {perfect storm} {spectacular view} {a good bowl of soup}. An adjective may follow the noun if (1) special emphasis is needed {reasons innumerable} {captains courageous}; (2) it occurs in this position in standard usage {court-martial} {notary public}; (3) it is a predicate adjective following a linking verb {I am

next to the word spindle, therefore, we agree with Patent Owner that this logically would indicate that rotatable modifies the term “spindle” rather than “spindle assembly” as argued by Petitioner. Petitioner has also not directed us to any portions of the specification that would warrant an interpretation that rotatable modifies the spindle assembly rather than the spindle itself. The ’464 specification describes that “work holding device 10 includes a handle 80 operatively coupled to spindle 52.” Ex. 1001 4:49–51. It is this handle that rotates the spindle. Patent Owner responds that Cornes utilizes a stationary spindle, i.e., “threaded stationary shaft 51” that is welded in place and therefore Cornes’ spindle does not rotate. Prelim. Resp. 21; *see id.* 22 (citing Ex. 1003 ¶ 153 (“universal nut driver 41 rotates the threaded tubular member 40 relative to the threaded stationary shaft 51 for adjusting the movable vise jaw 20 relative to the stationary vise jaw 30”)). Patent Owner further responds that interpreting “rotatable” to modify the spindle assembly rather than the spindle itself is unreasonable. *Id.* at 21 (“It is standard English usage to read a modifier—such as ‘rotatable’—as modifying the adjacent noun—the spindle—as opposed to the ‘spindle assembly’ which is not adjacent to ‘rotatable.’”)

ready}; or (4) the pronoun is of a type usually followed by the adjective {anything good} {everything yellow} {nothing important} {something wicked}. Some adjectives are always in the predicate and never appear before what they modify {the city is asleep} {the door was ajar}. Others appear uniformly before the nouns they modify {utter nonsense} {a mere child}.” Phrasal adjectives may precede or follow what they modify. http://www.chicagomanualofstyle.org/16/ch05/ch05_sec078.html, last accessed May 29, 2018.

Cornes describes its spindle as stationary. Ex. 1006 ¶ 35. Cornes describes the stationary jaw as containing “an outer threaded stationary shaft 51 inside the receiving sleeve 33, which threaded stationary shaft 51 is welded to a shaft receiving plate 52 welded to the vise insertion tube 36.” *Id.* Thus, Cornes clearly describes the threaded stationary shaft as welded to the plate indicating that the threaded shaft itself is not rotatable. Based on this disclosure in Cornes, Petitioner’s contention that Cornes’ threaded stationary sleeve meets the rotatable spindle limitation of claim 23 is not supported by the evidence.

We agree with Patent Owner that Petitioner has not demonstrated a reasonable likelihood of prevailing at trial in showing anticipation of claim 23 of the ’464 patent by Cornes for the reasons discussed in detail on pages 20–21 of Patent Owner’s Preliminary Response.

C. Ground 2: Obviousness over Cornes

Petitioner also contends that claim 23 would have been obvious based on Cornes. Pet. 48. Petitioner acknowledges that Cornes’ tubular member 40 rotates while the threaded stationary shaft 51 does not rotate. *Id.* at 49, *see id.* at 26 (citing Ex. 1003 ¶¶ 189–194). Petitioner urges that a person of ordinary skill in the art would understand that the relative positions of the threaded spindle and a receiving threaded shaft can be reversed while the operability would be the same. *Id.* at 49.

Patent Owner responds that Cornes does not disclose a rotatable spindle, and altering the spindle from a stationary spindle to a rotatable spindle as suggested by Petitioner would result in a device that is inoperable. Prelim. Resp. 23. Patent Owner urges that there is no evidence set forth by

Petitioner that simply changing the spindle's rotatability, as proposed by Petitioner, would result in a vise that opens and closes. *Id.* at 24. More importantly, Patent Owner responds that "obviousness requires a motivation to combine or modify the prior art which is conspicuously absent from the Petition." *Id.* at 26. Patent Owner contends that the possibility of modifying Cornes to arrive at the claimed invention does not explain why an ordinary artisan would have selected the particular elements and modified them in the in the way suggested by Petitioner. *Id.* at 26–27 (citing *InTouch Techs., Inc. v. VGO Commc'ns, Inc.*, 751 F.3d 1327, 1352, 1354 (Fed. Cir. 2014)).

We agree with Patent Owner that Petitioner has not demonstrated a reasonable likelihood that it would prevail at trial in showing that claim 23 would have been obvious in view of Cornes. A showing of obviousness "requires a suggestion of all limitations in a claim," *CFMT, Inc. v. Yieldup Int'l Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) and "an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness"))).

Petitioner contends that the combination of a threaded spindle that rotates relative to a receiving thread is a basic structure common to work-holding devices such as a vise. Pet. 49. Upon reviewing the record, however, including Mr. O'Banion's testimony (Ex. 1003 ¶¶ 189–194), we are not persuaded that Petitioner's evidentiary support for its obviousness position is sufficient. Even if a rotatable spindle might be present in many

wise-like work-holding devices, neither Petitioner nor Mr. O'Banion provide a reason why a person of ordinary skill in the art would have modified Cornes' spindle from being stationary to being rotatable, which would require reversing Cornes' spindle and tubular shaft and nut. In other words, the mere fact that a person having ordinary skill in the art could make such a change is insufficient evidence of a motivation to combine. *InTouch*, 751 F.3d at 1352 (rejecting expert's obviousness analysis that "primarily consisted of conclusory references to her belief that one of ordinary skill in the art could combine these references, not that they would have been motivated to do so."). Because the Petition has not sufficiently provided an articulated reason with a rational underpinning as to why reversing the spindle and mating threaded tubular member and nut in Cornes would have been obvious to a person of ordinary skill in the art, we agree with Patent Owner that Petitioner has not met its burden of showing a reasonable likelihood of success of the obviousness of claim 23 based on Cornes.

D. Ground 3: Obviousness over Cornes in view of Long or Murray

Petitioner additionally contends that claim 23 would have been obvious over Cornes taken with Long or Murray. Pet. 49. As noted above, Petitioner recognizes that Cornes teaches that its threaded stationary shaft is welded in place inside the receiving sleeve. *Id.* at 50. Petitioner relies on Long to teach a "threaded spindle" that is "rotatable." *Id.* Alternatively, Petitioner relies on Murray to teach a "threaded spindle" that is "rotatable." *Id.*

Patent Owner responds that Petitioner has not provided any reason why a person of ordinary skill in the art would have combined or modified the prior art as suggested. Prelim. Resp. 29.

For the reasons set forth below, we agree with Patent Owner that Petitioner does not identify sufficient evidence and reasoning to support the position that Cornes combined with either Long or Murray renders claim 23 obvious.

1. Long (Ex. 1007)

Long teaches a bench vise. Figure 2 of Long is reproduced below:

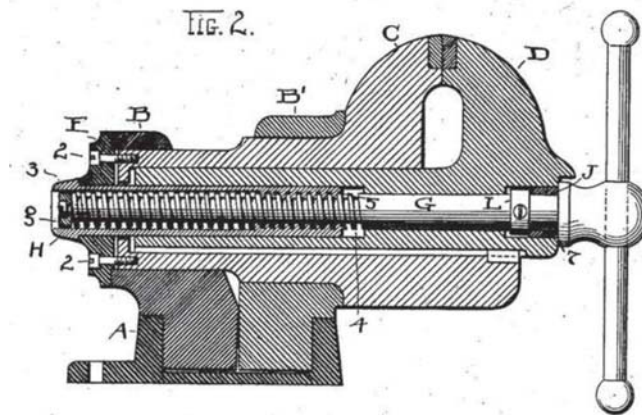


Figure 2 shows a longitudinal cross-section showing parts of the bench vise. Ex. 1007, 1:21–23. Jaw member D has threads H in the inner portion. *Id.* at 2:64–65. Screw G engages with threads of nut or sleeve H, and this nut or sleeve H has a head which bears against the outside of E and extends there through into jaw member D. *Id.* at 1:57–64.

2. Murray (Ex. 1009)

Murray teaches an “F” style clamp. Ex. 1009, Abstract. Murray’s clamp is reproduced below:

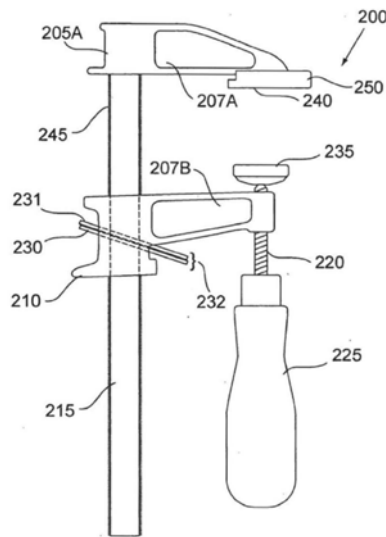


Figure 2A

Figure 2 of Murray, shown above, has a handle that may be attached to threaded member 220 used for making fine adjustments to the pressure applied to the work piece. Ex. 1009 ¶ 19.

3. Discussion—Obviousness over Cornes and Long or Murray

Petitioner contends that claim 23 would have been obvious over Cornes and either Long or Murray. Petitioner asserts that when Cornes’ universal nut driver having threads is turned relative to the stationary shaft, this moves the vise jaws either towards or away from each other. Pet. 50, *see id.* at 26 (citing Ex. 1003 ¶¶ 195–200). Petitioner acknowledges that “the tubular member 40 in Cornes rotates while the threaded stationary shaft 51 does not.” *Id.* at 50. The petition further states that Long and Murray both teach a rotatable spindle element. *Id.* Petitioner posits that it would have been obvious to a person of ordinary skill in the art to modify Cornes to have a rotatable shaft “because the substitution of one known element for

another to obtain a predictable result is obvious.” *Id.* at 22 (citing Ex. 1003 ¶ 240).

We agree with Patent Owner that Petitioner has not met its burden of showing a reasonable likelihood of success in prevailing with respect to the patentability of claim 23 based on Cornes and either Long or Murray. We agree with Patent Owner that Petitioner does not provide adequate reason why a person of ordinary skill in the art would have combined and modified the references as suggested. *See* Prelim. Resp. 29. Patent Owner points out, and we agree, that “Petitioner’s expert does not add any actual reasons for why a person of skill would have been motivated to change the static thread screw in Cornes to the rotatable screw in the claim.” *Id.* at 30; *see KSR*, 550 U.S. at 418. We observe that the Cornes’ vise operates based on the particular configuration of its static and rotatable screw components. In that respect, there is no suggestion in Cornes that its particular vise structure remains operable if static and rotatable components are swapped. Neither Petitioner nor its declarant, Mr. O’Banion, explains adequately why a skilled artisan would have had reason to redesign Cornes’ vise under the general theory of simple “substitution” of one known element for another. The mere possibility of such substitution does not provide a reason why a person of ordinary skill in the art would have done so. In other words, there needs to be reason why an ordinary artisan would reverse the spindle in the first place. Because the Petition has not provided an articulated reason with rationale underpinning as to why a skilled artisan would have replaced and reversed the spindle of Cornes with a spindle disclosed in either Long or Murray, we agree with Patent Owner that Petitioner has not shown a

reasonable likelihood of success in challenging claim 23 based on Cornes and Long or Murray. *See* Prelim. Resp. 29.

E. Ground 4: Obviousness over Cornes in view of Long

1. Claims 1, 3, and 5–7

Petitioner’s position is that claims 1, 3, and 5–7 of the ’464 patent would have been obvious over Cornes in view of Long. Pet. 51. On this record, we are not persuaded that Petitioner demonstrates that Cornes meets all the elements of claim 1. For the same reasons as discussed above with respect to Ground 1 (*see above* II.B.2), we conclude that Petitioner has not demonstrated sufficiently that Cornes discloses the limitation of a “first connection member defining a first passage, . . . The first connection member having a first end at the first jaw piece and a second end,” as recited in claim 1. Because Petitioner does not rely on the teachings of Long to provide the limitation of a “first connection member having a passage” that extends from the first jaw member to the end of the connection member, we find that Petitioner has not provided sufficient support to reach a conclusion of obviousness based on Cornes and Long.

We agree with Patent Owner that Petitioner’s position that the combination Cornes with Long meets all the elements of claims 1 is not supported by the evidence. *See* Prelim. Resp. 28–31. Therefore, we conclude that Petitioner has not shown a reasonably reasonable likelihood of prevailing at trial that claim 1, and dependent claims 3 and 5–7, would have been obvious based on Cornes and Long.

2. Claims 8, 22, 24, and 25

Petitioner's position is that claims 8, 22, 24, and 25 of the '464 patent would have been obvious over Cornes in view of Long. Pet. 51. Independent claims 8 and 24 recite a "first connection member defining a first passage." See Ex. 1001, claims 8 and 24. As with claim 1, we conclude that the Petition inadequately relies on the combined structure of Cornes' insertion tube 36 and receiving sleeve 33 for constituting the required "first connection member defining a first passage." For the reasons discussed above (see II.B.2), we are not persuaded that such combined structure in Cornes includes the required "first passage." Petitioner does not offer Long to make up for that deficiency. We, thus, are not persuaded that the combination of Cornes and Long meets that limitation of claims 8 and 24.³ Accordingly, Petitioner has not established a reasonable likelihood it would prevail in showing claims 8, 22, 24, and 25 of the '464 patent would have been obvious under 35 U.S.C. §103(a) over the combination of Cornes and Long.

E. Ground 5: Obviousness over Cornes in view of Long and Simpson

Petitioner contends that claim 12 of the '464 patent would have been obvious over Cornes, Long, and Simpson. Pet. 56. Claim 12 depends from claim 8 and adds "a handle coupled to the spindle and configured to be fixed in a locked position." Petitioner relies on Simpson to account for that added feature of claim 12, not to account for any features of claim 8.

³ Claim 22 depends from claim 8, and claim 25 depends from claim 24. Claims 22 and 25, thus, also require the pertinent limitation of the claims from which they depend.

As discussed above, claim 8 recites a “first connection member defining a first passage.” *See* Ex. 1001, claim 8. For the same reasons discussed above for claim 8 (*see above* II.B.2 (Ground 1)), we are not persuaded that Petitioner’s conclusion that the combination of Cornes, Long, and Simpson meets all the requirements of claim 12. Accordingly, we conclude that Petitioner has not established a reasonable likelihood it would prevail in showing that claim 12 of the ’464 patent would have been obvious under 35 U.S.C. §103(a) over the combination of Cornes, Long, and Simpson.

F. Ground 6: Obviousness over Cornes in view of Long and Murray

Petitioner contends that claim 21 would have been obvious over Cornes, Long, and Murray. Pet. 57. Claim 21 depends from claim 8 and further requires, “wherein the first jaw piece defines a cored-out back section to reduce weight and provide a handle to facilitate moving the work holding device, the cored-out back section being centered on the first jaw piece.” Petitioner relies on Murray to account for that added feature of claim 21. Pet. 57. As discussed above (*see* II.B.2), however, we are not persuaded that a combination of Cornes and Long accounts for the requirement in claim 8 of a “first connection member defining a passage,” and Petitioner does not offer Murray to make-up for that deficiency.

Accordingly, for the same reasons discussed above (*see* II.B.2), we are not persuaded that Petitioner has established a reasonable likelihood that it would prevail in showing that claim 21 of the ’464 patent would have been obvious under 35 U.S.C. §103(a) over the combination of Cornes, Long, and Murray.

III. CONCLUSION

For the foregoing reasons, we are not persuaded that the Petition establishes a reasonable likelihood that Petitioner would prevail in showing that any of claims 1, 3, 5–8, 12, and 21–25 of U.S. Patent 9,079,464 B2 are unpatentable as either anticipated or obvious.

IV. ORDER

It is ORDERED that the Petition is denied and no trial is instituted.

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