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Baker Botts L.L.P. 910 Louisiana Street, One Shell Plaza Houston, TX 77002			ANDREWS, DAVID L	
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* RONALD JOHANNES DIRKSEN and  
LOYD EDDIE EAST JR.

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Appeal 2017-000531  
Application 14/126,787  
Technology Center 3600

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Before MICHAEL L. HOELTER, LISA M. GUIJT, and  
GORDON D. KINDER, *Administrative Patent Judges*.

HOELTER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is a decision on appeal, under 35 U.S.C. § 134(a), from a final rejection of claims 1–8 and 10–20. Final Act. 1 (Office Action Summary). Claim 9 has been canceled. App. Br. 7 (Claims App'x.). We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

### THE CLAIMED SUBJECT MATTER

The disclosed subject matter relates to “subterranean drilling,” and more particularly, where “all or part of a wellbore may be drilled using coiled tubing instead of more traditional drillpipe.” Spec. 1:5–7. Claims 1, 10, and 14 are independent claims. Claim 1 is illustrative of the claims on appeal and is reproduced below.

1. A system for performing subterranean operations comprising:
  - a coiled tubing;
    - wherein the coiled tubing comprises a first segment and a second segment;
  - a swivel joint;
    - wherein the swivel joint is positioned at an interface of the first segment and the second segment;
  - and
  - a locking device;
    - wherein the locking device is operable to rotationally engage the swivel joint in response to the first segment and the second segment passing the locking device while traveling into a borehole.

### THE REJECTION ON APPEAL

Claims 1–8 and 10–20 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

### ANALYSIS

Appellants argue all the claims together. App. Br. 3–4. We select claim 1 for review with claims 2–8 and 10–20 standing or falling with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Independent claim 1 includes the limitation “wherein the locking device is operable to rotationally engage the swivel joint.”<sup>1</sup> The Examiner finds that the claimed invention is not enabled because it “would require undue experimentation in order to make and use a device including a ‘locking device’ operable to rotationally engage a swivel joint as recited in all claims.” Final Act. 4–5. Appellants disagree and, in support, reference a paragraph from Appellants’ Specification. App. Br. 3–4. The paragraph referenced is:

In one embodiment, the swivel joint 10 may be engaged and disengaged by a locking device located at or near an injector head. Accordingly, the locking device is operable to couple the first portion 11 to the sleeve portion 14. In one exemplary embodiment, the locking device may be a mechanical system, an electrical system, a magnetic system and/or a combination of one or more of these systems. In one embodiment, the locking device may mechanically flip the latch 13 into the latch receptacle 12 as the coiled tubing 16 moves downhole through the injector head and it may disengage the latch 13 from the latch receptacle 12 when the coiled tubing 16 is pulled out of the wellbore through the injector head.

Spec. 4:6–13. Appellants contend that “given the disclosure surrounding the swivel joint itself and its relatively straightforward configuration,” this description “is more than sufficient to enable the ‘locking device.’” App. Br. 4. The Examiner reiterates that even in view of this passage, “it is not understood how a locking device would perform” the limitation of “rotationally engag[ing] the swivel joint.” Ans. 2. The Examiner also references *In re Wands*, 858 F. 2d 731,737 (Fed. Cir. 1988), and states that “[t]he claim language of the locking device is extremely broad and purely a

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<sup>1</sup> For clarity, independent claims 10 and 14 each recite similar language, i.e., “engaging the swivel joint with a locking device.”

functional recitation with no structure or other guidance for how such a device would be constructed or would function.” Ans. 3. Appellants reply that “[s]ome experimentation or even more is not necessarily ‘undue experimentation’” and that “[s]wivel joints that are lockable or lockable swivel joints are devices that would be understood by one of ordinary skill in the art.” Reply Br. 2.

First, regarding Appellants’ last statement, although it may be true that swivel joints would be understood by one skilled in the art, the focus of our investigation is the claimed “locking device” which is recited as engaging a swivel joint. Our focus is not on the swivel joint itself which might be readily understood.

The passage identified by Appellants is a description of the possible driving forces that may be employed by the locking device to couple first portion 11 to sleeve portion 14, i.e., the locking device may be operated mechanically, electrically, magnetically or by any combination thereof. However, this passage does not provide any guidance or description of that machinery, circuitry, magnetics, or other components that are controlled or operated, or how such components might be arranged and constructed so that the swivel joint can be engaged by the locking device. All the Specification provides is that “the swivel joint 10 may be engaged and disengaged by a locking device” and that “the locking device is operable to couple the first portion 11 to the sleeve portion 14.”

Regarding this last passage, Appellants provide guidance as to how receptacle 12 on first portion 11 might engage latch 13 on sliding sleeve 14.<sup>2</sup>

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<sup>2</sup> The Examiner also acknowledges that “it is understood that latch 13 may be moved into receptacle 12.” Ans. 2.

*See Spec.*, Fig. 2 and 3:15–20. However, other than indicating that sleeve 14 can slide (and hence “the sleeve locks the swivel joint” (Spec. 3:17)), there is no indication as to how sleeve 14 otherwise interfaces with lower coiled tubing 16 so as to prevent further rotation of this lower coiled tubing 16 about the swivel joint. In short, we understand that sleeve 14 slides along lower tubing 16, but there is no indication in the Specification of how 14 engages 16 so as to prevent any further rotation of 16 when latch 13 engages receptacle 12. Furthermore, as indicated above, there is also no indication in the Specification as to how the locking device itself “engage[s] the swivel joint” when the segmented tubing “pass[es] the locking device” as claimed.

Appellants also state that Appellants’ Specification “actually illustrates a locking device or a locking mechanism.” Reply Br. 3. It appears that Appellants are equating the two when this is not likely. For example, Appellants describe the “locking device 30” as being “located at the injector head 20,” and it is clearly shown in this position in Figure 3. *See also* Appellants’ Amendment to page 5 of the Specification dated July 31, 2015. On the other hand, the “locking mechanism” is described to be that which is “used to lock and/or unlock the swivel joints 10.” Spec. 3:22–26; *see also* Reply Br. 3. From the figures and the written description of the Specification, we understand “locking mechanism” to encompass first portion 11, latch receptacle 12, latch 13, and sliding sleeve 14 as discussed above. However, these are mounted on the tubing itself. *See Spec.*, Fig. 2. Accordingly, should Appellants be equating the two, there is no explanation as to how the device/mechanism on the tubing is able to pass itself located above the borehole at the injector head when this tubing is “traveling into a borehole” as claimed.

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Accordingly, we are in agreement with the Examiner that “[n]o disclosure is found which would teach one of ordinary skill how such a device would be constructed or how such a device would function.” Final Act. 5. We sustain the Examiner’s rejection of claims 1–8 and 10–20 “as failing to comply with the enablement requirement.” Final Act. 4.

#### DECISION

The Examiner’s rejection of claims 1–8 and 10–20 are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED