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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/576,756	10/09/2009	Kevin D. Felder	END6675USNP1/090329	2783
92223	7590	03/01/2018	EXAMINER	
K&L Gates LLP-Pittsburgh 210 SIXTH AVENUE PITTSBURGH, PA 15222-2613			GIULIANI, THOMAS ANTHONY	
			ART UNIT	PAPER NUMBER
			3739	
			NOTIFICATION DATE	DELIVERY MODE
			03/01/2018	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KEVIN D. FELDER, CHAD P. BOUDREAUX, and
MICHAEL J. ANDREYKO

Appeal 2016-000851
Application 12/576,756
Technology Center 3700

Before EDWARD A. BROWN, JAMES P. CALVE, and
ARTHUR M. PESLAK, *Administrative Patent Judges*.

BROWN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Kevin D. Felder et al. (Appellants)¹ appeal under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 1–3 and 5–16. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ The Appeal Brief identifies Ethicon Endo-Surgery, Inc., as the real party in interest. Appeal Br. 4.

CLAIMED SUBJECT MATTER

Claims 1, 6, 11, and 16 are independent. Claim 1 is illustrative of the claimed subject matter, and reads:

1. A surgical instrument, comprising:
 - an end effector, comprising:
 - an electrode; and
 - a cutting member;
 - an elongate shaft comprising a proximal end and a distal end, wherein said end effector is coupled to said distal end of said elongate shaft, and wherein said elongate shaft further comprises:
 - a conductor electrically coupled with said electrode;
 - and
 - a drive shaft operably coupled with said cutting member; and
 - a handle coupled to said proximal end of said elongate shaft, wherein said handle comprises:
 - a lock movable between a locked position and an unlocked position, wherein said lock is engaged with said drive shaft to prevent said drive shaft from being advanced toward said distal end of said elongate shaft when said lock is in said locked position, and wherein said lock is disengaged from said drive shaft to permit said drive shaft to be advanced toward said distal end of said elongate shaft when said lock is in said unlocked position;
 - an electrical input; and
 - a multipurpose power switch configured to move said lock between said locked position and said unlocked position and to electrically couple and electrically uncouple said electrical input and said conductor, wherein said multipurpose power switch is movable between an unactuated position and an actuated position, wherein said electrical input is electrically uncoupled from said conductor when said multipurpose power switch is in said unactuated position, wherein said multipurpose power switch is configured to electrically couple said electrical input and said conductor when said multipurpose power

switch is in said actuated position, wherein said multipurpose power switch and said lock are operably coupled such that the movement of said multipurpose power switch from said unactuated position to said actuated position moves said lock from said locked position to said unlocked position.

Appeal Br. 33 (Claims App.).

REJECTIONS

- I. Claim 16 is rejected under 35 U.S.C. § 112, sixth paragraph.
- II. Claims 1, 2, 5–7, 9–12, 15, and 16 are rejected under 35 U.S.C. § 103(a) as unpatentable over Dycus (US 7,156,846 B2, issued Jan. 2, 2007) and Francischelli (US 2006/0041254 A1, published Feb. 23, 2006).
- III. Claims 3, 8, 13, and 14 are rejected under 35 U.S.C. § 103(a) as unpatentable over Dycus, Francischelli, and Swoyer (US 2008/0262491 A1, published Oct. 23, 2008).

ANALYSIS

I

The Examiner determines that the limitation “means for moving said lock” is a means-plus-function limitation invoking 35 U.S.C. § 112, sixth paragraph. Final Act. 2. This limitation is found only in claim 16, which recites “means for moving said lock from said locked position to said unlocked position by actuating said energy switch.” *See* Appeal Br. 37 (Claims App.) (hereafter, “means limitation”). The Examiner states that the written description fails to clearly link or associate the disclosed structure, material, or acts to the claimed function, such that one of ordinary skill in

the art would recognize what structure, material, or acts perform the function. Final Act. 3

The use of the claim term “means” creates a presumption that § 112, ¶ 6 applies. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015) (citation omitted). This presumption is overcome when the limitation also includes the structure necessary to perform the recited function. *TriMed, Inc. v. Stryker Corp.*, 514 F.3d 1256, 1259–60 (Fed. Cir. 2008). Claim 16 does not recite any structure for performing the recited function of “moving said lock from said locked position to said unlocked position by actuating said energy switch.” Appellants acknowledge that the means limitation is a means-plus-function limitation. Appeal Br. 19.

If a claim term is determined to invoke § 112, ¶ 6, then the term is construed “by identifying the ‘corresponding structure, material, or acts described in the specification’ to which the claim term will be limited.” *Robert Bosch, LLC v. Snap-On Inc.*, 769 F.3d 1094, 1097 (Fed. Cir. 2014) (citation omitted). “If we are unable to identify any ‘corresponding structure, material, or acts described in the specification,’ the claim term is indefinite.” *Id.* Appellants’ position is that the means limitation is clearly associated with corresponding structure in the application. Appellants explain that, in the embodiment shown in Figures 32–34, the links 124 and 126 are positioned intermediate an energy switch 122 and a lock 150. *Id.* Actuation of energy switch 122 rotates links 124 and 126, which moves lock 150 from a locked position to an unlocked position. *Id.* Appellants point out that the Specification describes that “the force applied to button 122 in order to actuate switch 123 can rotate first link 124 about pivot 118, rotate

second link 126 about pivot 119, and rotate rack lock 150 between locked and unlocked positions.” *Id.* (citing Spec. ¶ 87).

The Examiner “acknowledges that certain components of Applicant’s invention (see ‘120’ in figs. 31–34) could be described as a ‘means for moving said lock,’” but states that “none of the components are *explicitly referred to in this manner* in the instant specification.” Ans. 2 (emphasis added). Therefore, the Examiner concludes, it is unclear from the Specification which components are associated with the “means for moving the lock.” *Id.*

Appellants reply that there is no requirement that the Specification use the claimed term “means for moving said lock” to describe components that are associated with “moving said lock.” Reply Br. 2. We agree. “Structure disclosed in the specification qualifies as ‘corresponding structure’ *if the intrinsic evidence clearly links or associates that structure to the function recited in the claim.*” *Williamson*, 792 F.3d at 1352 (citations omitted; emphasis added). This does not require verbatim use of the claim language in the Specification.

The Examiner also states that the Specification describes that “although the button 122, and/or any similar button, can be used to actuate the switch 123, and/or any other suitable switch, other energy actuation mechanisms, such as toggles, levers, and/or any suitable actuators, can be used in addition to or in lieu of the above.” Ans. 2–3 (citing Spec. ¶ 78).

The Examiner appears to relate the claimed means to button 122, which is actuated to actuate switch 123. *See, e.g.*, Spec. ¶ 78. However, the means limitation recites that the “means” moves the lock from the locked position to the unlocked position “by actuating said energy switch.” That is,

the recited “means” is not for “activating said energy switch,” but is for moving the lock upon actuation of the energy switch. The Specification describes that links 124 and 126 move lock 150 from the locked position (Fig. 32) to the un-locked position (Fig. 34) upon actuation of energy switch 122. *See Spec.* ¶ 87. This “evidence clearly links or associates that structure to the function [of “moving said lock from said locked position to said unlocked position”] recited in claim.” *Williamson*, 792 F.3d at 1352. Accordingly, we agree with Appellants that this structure qualifies as “corresponding structure” for the recited function of the means limitation. *Id.* Thus, we do not sustain the Examiner’s position.²

II

Claims 1–3 and 5

Claim 1 calls for a conductor electrically coupled with an electrode; a drive shaft operably coupled with a cutting member; a lock movable between a locked position in which the lock is engaged with the drive shaft to prevent the drive shaft from being advanced toward the distal end of the elongate shaft, and an unlocked position in which the lock is disengaged from the drive shaft to permit the drive shaft to be advanced toward the

² We here refer to the Examiner’s “position” because 35 U.S.C. § 112, sixth paragraph, is not a proper basis for a claim “rejection.” “Whether a claim reciting an element in means- (or step-) plus-function language fails to comply with 35 U.S.C. 112(b) or pre-AIA 35 U.S.C. 112, second paragraph, *because the specification does not disclose adequate structure (or material or acts) for performing the recited function* is closely related to the question of whether the specification meets the description requirement in 35 U.S.C. 112(a) or pre-AIA 35 U.S.C. 112, first paragraph.” MPEP § 2181 (emphasis added). To the extent the Examiner intended to reject claim 16 under either of these other statutory provisions, no such rejection is before us.

distal end of the elongate shaft; and a multipurpose power switch configured to move the lock between the locked and unlocked positions and to electrically couple and electrically uncouple an electrical input and the conductor. Appeal Br. 33 (Claims App.). The multipurpose power switch is configured to electrically couple the electrical input and the conductor when in the actuated position, and the multipurpose power switch and the lock are operably coupled such that the movement of the multipurpose power switch from the unactuated position to the actuated position moves the lock from the locked position to the unlocked position. *Id.*

The Examiner finds that Dycus discloses a surgical instrument comprising, *inter alia*, an end effector including an electrode (electrically conductive surface 112) and a cutting member (blade 185), a conductor (sleeve 60) electrically coupled with the electrode, a drive shaft (knife assembly 180), a movable lock (locking flange 44), and a switch (movable handle 40). Final Act. 3–4. The Examiner finds that lock 44 is engaged with drive shaft 180 in a locked position (“via 71 [finger actuator 71]; when 40 and 50 [fixed handle 50] are at maximum separation - see figs. 30 and 31”), and is disengaged from the drive shaft in an unlocked position (“when 40 and 50 are at minimum separation - see fig. 47”), and that switch 40 and lock 44 are operably coupled such that the movement of switch 40 from the unactuated position to the actuated position moves lock 44 from the locked position to the unlocked position. *Id.* at 4. The Examiner finds that Dycus does not explicitly disclose that the switch is a multipurpose switch that also electrically couples (when actuated) and uncouples (when unactuated) the electrical input and conductor. *Id.*

The Examiner relies on Francischelli to teach an instrument comprising a multipurpose power switch that moves an end effector toward a closed configuration and simultaneously activates ablation energy, thereby ensuring that “the ablation energy will only be delivered when the jaws are in a closed configuration.” *Id.* (citing Francischelli ¶ 184). The Examiner states that this design increases efficiency by combining two previously distinct steps (i.e., closing and energizing the jaws) into one. *Id.* Therefore, the Examiner concludes, it would have been obvious to modify Dycus to comprise a multipurpose power switch that moves the end effector to a closed configuration and simultaneously electrically couples the electrical input and conductor in order to increase efficiency. *Id.*

Appellants contend that both Dycus and Francischelli fail to disclose or suggest a multipurpose power switch, as claimed, or even coupling an energy switch and a drive shaft lock. Appeal Br. 21. Appellants contend that movement of Dycus’ closing trigger 40 from an open position (FIG. 7) to a closed position (FIG. 44) unlocks the firing trigger 70, and movement of firing trigger 70 “fires” a knife assembly 180 through opposing jaw members 110, 120 (FIG. 44). *Id.* Appellants contend that closing trigger 40 includes a locking flange 44 (FIG. 44) that prevents firing trigger 70 from being actuated until a clinician has moved closing trigger 40 into its closed position. *Id.* Appellants also contend that neither closing trigger 40 nor firing trigger 70 functionally interacts with power switch 200 (*id.*), and only the actuation of a separate power switch 200 energizes jaw members 110, 120 (*id.* at 22).

Appellants contend that Francischelli merely discloses a trigger that simultaneously energizes an electrode and clamps the jaws of an end

effector. Appeal Br. 23 (citing Francischelli ¶ 184). Francischelli links a closing trigger with an energizing function, not a firing trigger with an energizing function. *Id.* Appellants contend Francischelli does not disclose a cutting member and an associated lock, and thus, does not disclose a multipurpose power switch, which also moves said lock from said locked position to said unlocked position, as claimed. *Id.*

Appellants further contend that Dycus teaches away from the proposed combination, which would simultaneously close and energize jaw members 110, 120. Appeal Br. 24. Appellants note that Dycus discloses that “the jaw members 110 and 120 may be opened, closed and rotated to manipulate tissue 420 until sealing is desired without unlocking the trigger assembly 70. This enables the user to *position* and *re-position* the forceps 10 *prior to activation and sealing.*” *Id.* (quoting Dycus, col. 19, ll. 40–44). Appellants contend that if jaw members 110, 120 were simultaneously closed and energized, the user would be unable to reposition them without involuntarily energizing untargeted tissue or undesired tissue. *Id.* Appellants point out that Dycus also teaches “a *safety switch or circuit*” that prevents actuation of power switch 200 unless jaw members 110, 120 are closed and/or have tissue 420 held between them. *Id.* (citing Dycus, col. 17, ll. 53–61). Appellants contend that one of ordinary skill in the art would have been discouraged from the proposed modification of Dycus. *Id.* at 25.

The Examiner responds:

While Dycus discloses a preferred embodiment that does not actuate and energize the jaws simultaneously, it does not teach away from this simple modification in view of Francischelli which is well known in the art. Furthermore, it should be noted that this modification would not render the apparatus of Dycus

inoperable, it would merely alter it in a known way in order to increase efficiency.

Ans. 3 (emphasis added).

“A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1327 (Fed. Cir. 2009) (citation omitted). A reference does not teach away “if it merely expresses a general preference for an alternative invention but does not ‘criticize, discredit, or otherwise discourage’ investigation into the invention claimed.” *DePuy*, 567 F.3d at 1327 (citation omitted). But even if a reference is not found to teach away, its statements regarding preferences are relevant to a finding regarding whether a skilled artisan would be motivated to combine that reference with another reference. *See Apple Inc. v. Samsung Elecs. Co., Ltd.*, 839 F.3d 1034, 1051 n.15 (Fed. Cir. 2016) (en banc).

Appellants’ contentions are more persuasive. The Examiner acknowledges Dycus’ teaching of *not* simultaneously actuating and energizing the jaw members. Ans. 3. Dycus further discloses the provision of a safety switch or circuit to prevent jaw members 110, 120 from firing unless they are either closed or have tissue held therebetween. Dycus, col. 17, ll. 55–61. The Examiner explains that “Francischelli is primarily relied upon for its teaching of simultaneous jaw actuation and energization.” Ans. 3. However, this teaching is opposite to Dycus’ teaching of non-simultaneous jaw actuation and energization. Although a reference does not teach away “if it merely expresses a general preference for an alternative invention,” the Examiner does not explain adequately why this teaching in

Dycus is merely a “general preference” or “preferred embodiment.” *DePuy*, 567 F.3d at 1327. Dycus’ teaching to not actuate and energize the jaws simultaneously, but even to include structure in the device to prevent this function from occurring, appears to at least discourage simultaneous actuation and energizing of the jaws, as taught by Francischelli. *Id.*

Further, even assuming Dycus does not teach away from the proposed combination, its statements regarding preferences or a “preferred embodiment” are still relevant to a finding regarding whether a skilled artisan would have been motivated to combine its teachings with those of Francischelli. *See Apple Inc.*, 839 F.3d at 1051 n.15. Even assuming the proposed modification would make Dycus’ device more “efficient” in the sense that actuation of handle 40 would simultaneously both close and energize jaw members 110, 120, thereby eliminating the need to actuate power switch 200 to energize these members, this modification would appear to eliminate the ability of Dycus’ device to prevent “involuntarily energizing untargeted or undesired tissue” by preventing jaw members 110, 120 from being energized until they are already closed and/or have tissue held between them. The Examiner has not explained adequately how such improved “efficiency” that might result from the proposed modification outweighs this loss of preferred functionality in Dycus. Accordingly, we agree with Appellants that the Examiner has not provided an adequate reason with a rational underpinning to modify Dycus in view of Francischelli’s teaching. Thus, we do not sustain the rejection of claim 1, or of dependent claims 2, 3, and 5.

Claims 6–10

Regarding claim 6, Appellants contend that neither Dycus nor Francischelli discloses or suggests “a dual-function power switch configured to move said lock between said locked position and said unlocked position and to electrically couple and electrically uncouple said electrical input and said conductor,” or the limitation of “said second force is larger than said first force such that initiation of the energizing state precedes initiation of the firing state.” Appeal Br. 25. Appellants further contend that Dycus teaches away from the proposed modification. *Id.* at 26.

The Examiner responds that the combination “teaches an apparatus having jaws that are actuated and energized simultaneously (and prior to advancing a cutting member due to the presence of the locking mechanism that prevents cutting prior to jaw actuation),” which meets all of the cited claim limitations. Ans. 3–4.

We are persuaded by Appellants that the Examiner has not established how Dycus discloses the limitations of “said dual-function power switch is movable between an unactuated position and an actuated position upon the application of *a first force* to said dual-function power switch,” and “*a second force* applied to said dual-function power switch moves said lock from said locked position to said unlocked position, and wherein *said second force is larger than said first force* such that initiation of the energizing state precedes initiation of the firing state.” Appeal Br. 35 (Claims App. (emphasis added)). The Examiner does not identify any disclosure in Dycus that supports the findings that operation of Dycus’ modified device would require such first force and “second (greater) force.” *See* Final Act. 6.

Moreover, regarding Appellants' "teaching away" argument, Dycus' teaching to not actuate and energize the jaws simultaneously appears to at least discourage simultaneous actuation and energizing of the jaws, as taught by Francischelli. The proposed modification would appear to eliminate the ability of Dycus' device to prevent "involuntarily energizing untargeted or undesired tissue" with jaw members 110, 120. Accordingly, the Examiner has not provided an adequate reason with a rational underpinning to modify Dycus in view of Francischelli. Thus, we do not sustain the rejection of claim 6, or of dependent claims 7–10.

Claims 11–15

Regarding claim 11, Appellants contend that neither Dycus nor Francischelli discloses or suggests "a multifunction switch configured to move said lock between said locked position and said unlocked position and to electrically couple and electrically uncouple said electrical input and said conductor." Appeal Br. 27. Appellants also contend that neither Dycus nor Francischelli discloses or suggests the limitation of "said multifunction switch and said lock are operably coupled such that . . . said multifunction switch electrically couples said electrical input and said conductor before said drive shaft is advanced toward said distal end of said elongate shaft." *Id.* Appellants further contend that Dycus teaches away from the proposed modification. *Id.* at 28.

For reasons similar to those discussed above in regard to claims 1 and 6, Appellants' contentions for claim 11 are persuasive. Thus, we do not sustain the rejection of claim 11, or of dependent claims 12–15.

Claim 16

The Examiner finds that Dycus discloses, *inter alia*, “means for moving said lock from said locked position to said unlocked position (40; also actuates end effector),” but fails to explicitly disclose that the lock is moved by actuating the energy switch. Final Act. 7.

Appellants contend that neither Dycus nor Francischelli discloses or suggests an equivalent structure to the structure disclosed in the Specification corresponding to the claimed means limitation. Appeal Br. 29.

Appellants’ contention is persuasive. As discussed above, the Specification describes that links 124 and 126 move lock 150 from the locked position to the un-locked position upon actuation of energy switch 122. *See* Spec. ¶ 87. The Examiner does not, however, establish that the combination of Dycus and Francischelli discloses or suggests this structure, or equivalent structure, for performing the recited function of the means limitation “by actuating said energy switch.” Accordingly, because the Examiner has not established by a preponderance of the evidence that the proposed combination would include all of the limitations recited in claim 16, we do not sustain the rejection.

III

The Examiner’s reliance on Swoyer to teach limitations of dependent claims 3, 8, 13, and 14 fails to cure the deficiencies of parent claim 1, 6, or 11. Final Act. 8–9. Accordingly, we do not sustain the rejection of claims 3, 8, 13, and 14.

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Application 12/576,756

DECISION

The Examiner's decision to reject claims 1–3 and 5–16 is reversed.

REVERSED