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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* JOHN J. O'MAHONY, STEVEN BEMARD,  
and SEAN P. SKUBITZ

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Appeal 2011-004091  
Application 11/557,376  
Technology Center 3700

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Before DONALD E. ADAMS, DEMETRA J. MILLS, and ERIC GRIMES,  
*Administrative Patent Judges.*

ADAMS, *Administrative Patent Judge.*

DECISION ON APPEAL

This appeal under 35 U.S.C. § 134 involves claims 1-37 (App. Br. 5;  
Ans. 2). We have jurisdiction under 35 U.S.C. § 6(b).

STATEMENT OF THE CASE

The claims are directed to a dual lumen catheter. Claim 1 is  
representative and is reproduced in the Claims Appendix of Appellants'  
Brief.

Claims 1-13, 16, 19, 21-23, 28, 30, and 32-37 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Martin.<sup>1</sup>

Claim 14 stands rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Martin and Boyd.<sup>2</sup>

Claim 15 stands rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Martin and Helfer.<sup>3</sup>

Claims 17 and 18 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Martin and Abrahamson.<sup>4</sup>

Claim 20 stands rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Martin and Gaskill.<sup>5</sup>

Claims 24-27 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Martin and Beisel.<sup>6</sup>

Claims 29 and 31 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Martin and O'Connor.<sup>7</sup>

We affirm.

*The rejection over Martin:*

#### ISSUE

Does the preponderance of evidence on this record support a conclusion of obviousness?

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<sup>1</sup> Martin, US 5,188,593, issued February 23, 1993.

<sup>2</sup> Boyd et al., US 5,558,644, issued September 24, 1996.

<sup>3</sup> Helfer, US 4,857,054, issued August 15, 1989.

<sup>4</sup> Abrahamson, US 5,489,278, issued February 6, 1996.

<sup>5</sup> Gaskill, III, US 4,911,717, issued March 27, 1990.

<sup>6</sup> Beisel, US 5,947,940, issued September 7, 1999.

<sup>7</sup> O'Connor et al., US 5,545,151, issued August 13, 1996.

FACTUAL FINDINGS (FF)

FF 1. Martin suggests “a dual lumen catheter ... fully capable of withdrawing blood and returning treated blood through a peripheral vein of a patient” (Ans. 3; *see also* Martin, col. 1, ll. 16-24 (“[M]ultiple lumen catheters are ... widely used in medical procedures ... wherein it is desirable ... to introduce blood into a vein or other vessel of a patient through a first lumen while simultaneously removing a corresponding amount of blood from ... a second lumen of the catheter”); Martin, Abstract (“A dual lumen catheter, for insertion into a vein of a patient”)).

FF 2. Martin’s dual lumen catheter comprises a first and second lumen, wherein one of the lumens “continues as a single lumen ... distal to the dual lumen section” (*id.* at 3-4).

FF 3. “Martin does not expressly disclose the ... catheter[’s] insertable length range” (*id.* at 4).

FF 4. Examiner finds that “[t]he insertable length range of the catheter depends o[n the] anatomical parameters of the particular vessel the catheter is intended to be inserted in” (*id.*).

FF 5. “Martin does not expressly disclose the particular parameter of the catheter diameter range” (*id.* at 5).

FF 6. Examiner finds that “the catheter diameter range depends o[n] the particular vessel caliber the catheter is intended to be inserted in” (*id.*).

FF 7. Martin fails to expressly disclose “the particular parameter of the distance between the inlet opening of the catheter and [the] outlet opening of the catheter” (*id.* at 6).

FF 8. Examiner finds that “[t]he working interval between [the] inlet opening of the catheter and outlet opening of the catheter depends o[n] the

physiological and anatomical parameters of the blood flow in the particular vessel” (*id.*).

### ANALYSIS

Examiner concludes that Martin suggests a dual lumen catheter comprising two lumens, wherein one lumen continues as a single lumen distal to the dual lumen section (Ans. 3-4; FF 1-2). In addition, Examiner concludes that at the time Appellants’ invention was made, it would have been prima facie obvious to arrange and/or modify Martin’s device to comprise a catheter tube having: (1) an insertable length of at least 10 cm; (2) a diameter along the insertable length of the catheter of no more than 6 French; and (3) an opening of a first lumen 10 cm proximal to the opening of a second lumen to accommodate the anatomical parameter of a particular vessel in a patient (Ans. 4-6; FF 3-8). *In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997) (“[I]t is not inventive to discover the optimum or workable ranges by routine experimentation.”) (quoting *In re Aller*, 220 F.2d 454, 456 (CCPA 1955)).

Appellants present separate arguments for the following groups of claims: (I) claims 1-4, 6-13, 16, 19-23, 30-32, and 34-37 and (II) claims 5 and 33. Claims 1 and 5 are representative.

#### *Claim 1:*

We are not persuaded by Appellants’ contention that Martin fails to “*Disclose A Catheter Having A Withdrawal Lumen Extending Beyond An Infusion Lumen*” (App. Br. 13; Reply Br. 3-4). Appellants’ contention fails to identify a structural difference between the device set forth in Appellants’ claim 1 and the device suggested by Martin. “[T]he patentability of

apparatus ... claims depends on the claimed structure, not on the use or purpose of that structure.” *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 809 (Fed. Cir. 2002). Notwithstanding the nomenclature Appellants chose to label the various lumens of Martin’s device, there is no persuasive evidence or argument on this record to support a conclusion that (1) the structure of Appellants’ device is *not* prima facie obvious over Martin’s device and (2) Martin’s device is *not* capable of functioning as intended by Appellants (*Cf.* FF 1). For the foregoing reasons, Appellants’ contention, that they intend to attach/couple Martin’s catheter to a secondary apparatus in a manner that is “contrary to conventional wisdom”, fails to establish a non-obvious structural difference between Appellants’ claimed device and the device suggested by Martin (Reply Br. 4).

We are not persuaded by Appellants’ contention that at the time of Appellants’ claimed invention, it would *not* have been prima facie obvious to a person of ordinary skill in this art to arrange, or modify, Martin’s catheter to have a diameter of no more than 6 French along its insertable length, or any other reasonable diameter, to accommodate a peripheral vein, or other vessel, of a patient for the purpose that those of ordinary skill in this art widely used multiple lumen catheters (*see* App. Br. 14-16; Reply Br. 2-3; *Cf.* FF 1 and 6). *See Geisler*, 116 F.3d at 1470. *See also KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007) (“A person of ordinary skill is also a person of ordinary creativity, not an automaton.”).

*Claim 5:*

In addition to the foregoing, we are not persuaded by Appellants’ contention that at the time of Appellants’ claimed invention, it would *not*

have been prima facie obvious to a person of ordinary skill in this art to arrange, or modify, Martin's catheter to have an opening of a first lumen 10 cm proximal to the opening of a second lumen to accommodate a peripheral vein, or other vessel, of a patient for the purpose that those of ordinary skill in this art widely used multiple lumen catheters (*see* App. Br. 16-17; *Cf.* FF 1 and 8). *See Geisler*, 116 F.3d at 1470. *See also KSR*, 550 U.S. at 421.

#### CONCLUSION OF LAW

The preponderance of evidence on this record supports a conclusion of obviousness. The rejection of claims 1 and 5 under 35 U.S.C. § 103(a) as unpatentable over the combination of Martin is affirmed. Claims 2-4, 6-13, 16, 19-23, 30-32, and 34-37 are not separately argued and fall with claim 1. Claim 33 is not separately argued and falls with claim 5.

*The rejection over the combination of Martin and Boyd or Helfer:*

#### ISSUE

Does the preponderance of evidence on this record support a conclusion of obviousness?

#### FACTUAL FINDINGS (FF)

FF 9. Examiner relies on Martin as discussed above (Ans. 15).

FF 10. Examiner relies on Boyd and Helfer to suggest a catheter in combination with a blood pump, which is capable of applying a pressure in the range of negative 100 to negative 300 (Boyd), or negative 150 to negative 200 (Helfer), millimeters of mercury to a lumen of a catheter (*id.*).

#### ANALYSIS

Examiner reasons that the requirement in Appellants' claim 14, wherein a blood pump applies a negative pressure to an inlet of a withdrawal

lumen “is not [a] structural limitation but [is instead a] recitation with respect to the manner in which ... [the] claimed apparatus is intended to be employed, which does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations” (Ans. 24). The same is true of Appellants’ claim 15. *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d at 809. In addition, Examiner concludes that, at the time Appellants’ claimed invention was made, it would have been prima facie obvious to combine Martin’s catheter with a blood pump, capable of applying a pressure in the range of negative 100 to negative 300 (Boyd), or negative 150 to negative 200 (Helfer), millimeters of mercury to a lumen of a catheter (*see generally id.*; *see also id.* at 15-16).

For the foregoing reasons we are not persuaded by Appellants’ contention that “a person of ordinary skill would not have found obvious applying a negative pressure, such as disclosed in Boyd [(or Helfer)], to the farthest extending lumen in Martin” (App. Br. 17 and 18). For the same reasons, we are not persuaded by Appellants’ contention that Examiner “dismiss[e]d the requirement in dependent claim 14 for a blood pump that applies a negative pressure of 100 to 300 millimeters of mercury to the withdrawal lumen” (Reply Br. 4).

To be complete, we are not persuaded by Appellants’ unsupported contention that “Martin teaches applying a positive pressure to the farthest extending lumen” (App. Br. 17 and 18; Reply Br. 4). *In re Geisler*, 116 F.3d at 1471 (Argument by counsel cannot take the place of evidence).

#### CONCLUSION OF LAW

The preponderance of evidence on this record supports a conclusion of obviousness.

The rejection of claim 14 under 35 U.S.C. § 103(a) as unpatentable over the combination of Martin and Boyd is affirmed.

The rejection of claim 15 under 35 U.S.C. § 103(a) as unpatentable over the combination of Martin and Helfer is affirmed.

*The rejection over Martin and Abrahamson:*

#### ISSUE

Does the preponderance of evidence on this record support a conclusion of obviousness?

#### FACTUAL FINDINGS (FF)

FF 11. Examiner relies on Martin as discussed above (Ans. 16).

FF 12. Examiner relies on Abrahamson to suggest a catheter, wherein the “catheter tube has a constant outside diameter section extending along its insertable length to a distal tip portion of the catheter” (*id.*).

#### ANALYSIS

Based on the combination of Martin and Abrahamson, Examiner concludes that, at the time of Appellants’ claimed invention, it would have been prima facie obvious to a person of ordinary skill in this art to modify Martin’s catheter tube to have “[a] constant outside diameter section extending along its insertable length to a distal tip portion of the catheter, as taught by Abrahamson” (App. Br. 17). “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR*, 550 U.S. at 416.

For the foregoing reasons, we are not persuaded by Appellants’ contention that “Abrahamson does not suggest that the catheter disclosed in

Martin [may] be modified to have an extraction (withdrawal) lumen extend beyond the return (infusion) lumen” (App. Br. 18).

#### CONCLUSION OF LAW

The preponderance of evidence on this record supports a conclusion of obviousness. The rejection of claim 17 under 35 U.S.C. § 103(a) as unpatentable over the combination of Martin and Abrahamson is affirmed. Claim 18 is not separately argued and falls with claim 17.

*The rejection over the combination of Martin and any one of Gaskill, Beisel, or O’Connor:*

#### ISSUE

Does the preponderance of evidence on this record support a conclusion of obviousness?

#### FACTUAL FINDINGS (FF)

FF 13. We adopt the Examiner’s findings concerning the scope and content of the prior art (Ans. 18-23).

#### ANALYSIS

Appellants do *not* argue the rejection of dependent: (1) claim 20; (2) claims 24-28; or (3) claims 29 and 31, separately from the rejection of claim 16 (App. Br. 18-19). Arguments not made are waived.

For the reasons set forth above, Appellants failed to identify error in Examiner’s prima facie case of obviousness. Therefore, we find that the preponderance of evidence falls in favor of Examiner.

#### CONCLUSION OF LAW

The preponderance of evidence on this record supports a conclusion of obviousness.

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The rejection of claim 20 under 35 U.S.C. § 103(a) as unpatentable over the combination of Martin and Gaskill is affirmed.

The rejection of claim 24 under 35 U.S.C. § 103(a) as unpatentable over the combination of Martin and Beisel. Claims 23-27 are not separately argued and fall with claim 24.

The rejection of claim 29 under 35 U.S.C. § 103(a) as unpatentable over the combination of Martin and O'Connor. Claim 31 is not separately argued and falls with claim 29.

#### TIME PERIOD FOR RESPONSE

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

AFFIRMED

alw