

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

STRYKER CORPORATION,
Petitioner,

v.

KARL STORZ ENDOSCOPY-AMERICA, INC.,
Patent Owner.

Case IPR2015-00674
Patent 7,821,530 B2

Before BRYAN F. MOORE, BARRY L. GROSSMAN, and
MICHELLE N. WORMMEESTER, *Administrative Patent Judges*.

MOORE, *Administrative Patent Judge*.

DECISION
Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

Petitioner, Stryker Corporation, filed a Petition requesting an *inter partes* review of claims 1–6, 8, and 9 of U.S. Patent No. 7,821,530 B2 (Ex. 1001, “the ’530 patent”). Paper 2 (“Pet.”). In response, Patent Owner, Karl Storz Endoscopy-America, Inc., filed a Preliminary Response. Paper 8 (“Prelim. Resp.”). We have jurisdiction under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted “unless . . . the information presented in the petition . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

Upon consideration of the Petition, and for the reasons explained below, we determine that Petitioner has not established a reasonable likelihood that it would prevail with respect to any of the challenged claims.

A. *Related Matters*

The parties identify the following case involving the ’530 patent: *Karl Storz Endoscopy-America, Inc. v. Stryker Corp.*, Case No. 14-00876 (N.D. Cal., Feb. 26, 2014). Pet. 1. The parties also identify seven other pending requests for *inter partes* review involving the ’530 patent or a patent related to the ’530 patent. Pet. 1–2.

B. *The ’530 Patent*

The ’530 patent is titled “**INTELLIGENT CAMERA HEAD.**” The Abstract describes the subject matter as follows:

A video imaging system that minimizes the effect of EMI on the image data, provides a small, lightweight easy to use camera head, permitting interchangeable use of a variety of intelligent

camera heads with a single camera control unit, and allows the utilization of new camera heads with new functions as they become available without having to replace the existing CCU.

Ex. 1001, Abstract.

C. Illustrative Claim

Petitioner challenges claims 1–6, 8 and 9 of the '530 patent.

Independent claim 1 is illustrative of the claimed subject matter and is reproduced below:

1. A video imaging system comprising:
a camera head including an imager generating a stream of video data, at least one digital driver, a processor, and a memory device, accessible by said processor, containing camera head information;
a cable; and
a camera control unit coupled to said camera head via said cable and having at least one digital receiver;
said camera control unit processing a stream of digital video data;
wherein a plurality of camera heads are attachable to and controlled by said camera control unit.

Ex.1001, 9:24–10:4.

D. Prior Art Relied Upon

Petitioner relies upon the following prior art references:

Endsley	US 6,006,613	Dec. 21, 1999	(Ex. 1003)
Adler	US 6,659,940 B2	Dec. 9, 2003	(Ex. 1004)
Dowdy	US 6,295,082 B1	Sep. 25, 2001	(Ex. 1005)
King	US 6,608,647 B1	Aug. 19, 2003	(Ex. 1007)

Texas Instruments, *Interface Circuits for TIA-EIA-644 (LVDS) Design Notes*, Mixed Signal Products (Nov. 1998) [hereinafter “TI-LVDS”] (Ex. 1006)

Universal Serial Bus Specification Revision 1.0, Compaq Computer Corporation (Jan. 1996) [hereinafter “USB 1.0”] (Ex. 1008)

E. Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability:

Challenged Claims	Basis	References
1–6	§ 102	Endsley
1–6	§ 103	Endsley and USB 1.0
1–6	§ 103	Endsley and Dowdy
1–6, 8, and 9	§ 103	Endsley and Adler
8 and 9	§ 103	Endsley, Dowdy, and Adler
8 and 9	§ 103	Endsley, Dowdy, and TI-LVDS
1–6	§ 103	Endsley, Adler, and King
1–6	§ 103	Endsley, USB 1.0, Dowdy, and King

II. ANALYSIS

A. Claim Construction

We construe claims in an unexpired patent by applying the broadest reasonable interpretation in light of the specification. *See* 37 C.F.R. § 42.100(b); *In re Cuozzo Speed Techs., LLC*, No. 2014-1301, 2015 WL 4097949, *7–8 (Fed. Cir. July 8, 2015). Under the broadest reasonable construction standard, claim terms are given their ordinary and customary

meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). On the other hand, a “claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer” and clearly set forth a definition of the claim term in the specification. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002).

In light of Petitioner’s challenges to the patentability of the claims, we address the following terms in the challenged claims: “video imaging system” and “camera head.” Other terms in the challenged claims need no express construction at this time.

1. “*video imaging system*”

The preamble of independent claim 1 recites “[a] video imaging system.” Ex. 1001, 9:24. Asserting that “the patent claims do not have meaning removed from the context of the disclosure,” Patent Owner contends that the preamble is limiting. Prelim. Resp. 6. In particular, Patent Owner contends that the recited video imaging system means “‘*endoscopic video imaging equipment for use in medical procedures.*’” *Id.* In support of its contention, Patent Owner explains:

The [S]pecification describes explicitly the context in which the inventive video imaging system arose: “video endoscopy,” “[which] includes medical diagnostic and therapeutic disciplines that utilize endoscopes to penetrate and view otherwise inaccessible body cavities utilizing minimally invasive surgical procedures.” The terms “endoscopic” or “endoscopy” automatically evoke[] medical imaging in the minds of those of skill in the art. The [S]pecification describes numerous issues and characteristics unique to the field of video endoscopy.

Id. at 6–7 (internal citation omitted).

Petitioner, on the other hand, contends that the preamble is not limiting because the recited video imaging system “‘does not recite essential structure.’” Pet. 6. We are persuaded by Petitioner’s contention in this regard.

In general, a preamble limits the invention if it recites essential structure or steps, or if it is “‘necessary to give life, meaning, and vitality’ to the claim.” *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (citing *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999)). A preamble, however, is not limiting where the claim body defines a structurally complete invention and the preamble only states a purpose or intended use for the invention. *Id.*

The body of claim 1 recites a system that includes a camera head, a cable, and camera control unit. The recited camera head includes an imager, a digital driver, a processor, and a memory device. The recited system corresponds at least to the embodiment shown in Figure 1 of the ’530 patent, which illustrates a “camera head, universal cable and camera control unit.” Ex. 1001, 4:53–55. Figure 1 shows that the camera head includes an imager, a driver, a processor, and a memory. *See id.*, Fig. 1. Thus, the body of claim 1 recites a structurally complete invention.

Moreover, although the Specification may be “replete with . . . references to endoscopic/medical imaging, as Patent Owner contends, (Prelim. Resp. 7), we note that Patent Owner does not direct our attention to any language in the Specification that *defines* a video imaging system as endoscopic video imaging equipment for use in medical procedures. Claim terms generally should be given their ordinary and customary meaning except, “1) when a patentee sets out a definition and acts as his own

lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *Thorner v. Sony Comput. Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). “To act as its own lexicographer, a patentee must ‘clearly set forth a definition of the disputed claim term’” *Id.* (quoting *CCS Fitness*, 288 F.3d at 1366). Accordingly, based on the record before us, we determine that the preamble of claim 1 does not recite any essential structure not already recited in the body of the claim.

In view of the foregoing, we agree with Petitioner that the preamble of claim 1 is non-limiting.

2. “*camera head*”

Independent claim 1 recites “a camera head.” Ex. 1001, 9:25. Petitioner argues that this limitation means “‘a device that generates an uninterrupted sequence of data that represents moving visual images.’” Pet. 6. We are unpersuaded by Petitioner’s argument.

In support of its construction, Petitioner points out that claim 1 further “recites that the camera control unit is coupled to the camera head and processes a stream of digital video data.” *Id.* Given this, Petitioner contends that the recited camera head must therefore “be a device that generates an uninterrupted (i.e., continuous) sequence of data (i.e., stream of data) that represents moving visual images (i.e., video).” *Id.* In light of the issues before us at this stage of the proceeding, however, it is not necessary for us to decide whether the camera head generates an *uninterrupted* sequence of data. We, therefore, decline to limit our construction accordingly.

Petitioner also contends that the recited camera head “is not limited to an endoscopic video camera” because “that would be a much narrower

construction limiting the claim to a specific type of camera head.” *Id.* As Patent Owner points out, however, the Specification defines “camera head” as an endoscopic video camera. Prelim. Resp. 9 (citing Ex. 1001, 1:26–27). Accordingly, we are unpersuaded by Petitioner’s contention.

Petitioner further contends that “an ‘endoscope’ is simply not a limitation of any claim.” Pet. 6. We are unpersuaded by Petitioner’s contention in this regard. Petitioner does not explain why reciting an endoscopic video camera requires reciting an endoscope.

Finally, Petitioner contends that, during prosecution, Patent Owner “never argued that [the Examiner’s] rejections were improper because the [applied] references lacked disclosure of an endoscopic video camera.” *Id.* at 6–7. We also are unpersuaded by Petitioner’s contention in this regard. As discussed above, we construe claims *in light of the Specification*, which defines a “camera head” as an endoscopic video camera. *See Cuozzo*, 2015 WL 4097949, at *7–8; Ex. 1001, 1:26–27.

We note Patent Owner’s contention that an endoscopic video camera is “‘a video camera that includes or is adapted to be connected to an endoscope.’” Prelim. Resp. 8. On this record, we agree with Patent Owner. *See* Ex. 1001, 1:23–25 (“[c]oupling of video imaging cameras (incorporating solid-state imagers) to endoscopes”).

Based on the record before us, we determine that, under a broadest reasonable construction in light of the Specification, the recited term “camera head” means an endoscopic video camera, which is a video camera that includes or is adapted to be connected to an endoscope.

B. Anticipation by Endsley

“A claim is anticipated only if each and every element as set forth in

the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co.*, 814 F.2d 628, 631 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the . . . claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an ipsissimis verbis test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990).

Petitioner asserts that claims 1–6 are unpatentable under 35 U.S.C. § 102 as anticipated by Endsley. Pet. 8–24. To support its contentions, Petitioner provides detailed explanations as to how the prior art meets each claim limitation. *Id.* at 8–25. Petitioner also relies upon a Declaration of Dr. John R. Grindon, who has been retained as an expert witness by Petitioner for the instant proceeding. Ex. 1009. We are unpersuaded that Petitioner’s analysis and supporting evidence have established a reasonable likelihood of Petitioner prevailing in showing the unpatentability of the claims.

Endsley describes a multi-mode digital camera capable of interfacing with a computer. Ex. 1003, Abstract, 3:7–9, Fig. 2. Independent claim 1 recites “a camera head.” Petitioner relies on Endsley’s camera. *See* Pet. 9; Ex. 1009 ¶¶ 49. Based on the record before us, we are unpersuaded by Petitioner’s contention in this regard. As discussed above, we construe the recited camera head to mean an endoscopic video camera. Petitioner does not direct us to any disclosure in Endsley that describes the camera as an endoscopic video camera. In fact, Petitioner directs us to disclosure in Endsley in which the camera is depicted as a Web camera. *See* Ex. 1009 ¶¶ 49 (citing Ex. 1003, Fig. 2.)

We have reviewed the proposed ground of anticipation by Endsley against claims 1–6, and we are not persuaded that Petitioner has established a reasonable likelihood that it would prevail in its challenge to claims 1–6 on this ground.

C. Obviousness over Endsley and USB 1.0

Petitioner asserts that claims 1–6 are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Endsley and USB 1.0. Pet. 24–27. As noted above, we find that Endsley does not disclose a camera head as required by claim 1. USB 1.0 does not compensate for the deficiency of Endsley. Thus, upon review of the proposed ground of obviousness over Endsley and USB 1.0 against claims 1–6, we are not persuaded that Petitioner has established a reasonable likelihood that it would prevail in its challenge to claims 1–6 on this ground.

D. Obviousness over Endsley and Dowdy

Petitioner asserts that claims 1–6 are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Endsley and Dowdy. Pet. 27–37. As noted above, we find that Endsley does not disclose a camera head as required by claim 1.

Petitioner also appears to contend that Dowdy alternatively teaches the recited camera head. *See* Pet. 31 (claim chart citing Ex. 1005, 6:48–58). Based on the cited portion of Dowdy, we are persuaded that Dowdy alternatively teaches the recited camera head. *See id.*; Ex. 1005, 6:48–58.

It is not sufficient, however, for Petitioner to demonstrate that each of the components is known. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). Petitioner must also provide “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”

In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006). In that regard, Petitioner does not provide a persuasive rationale for combining Endsley and Dowdy to obtain the recited camera head (i.e., an endoscopic video camera).

Petitioner's citation to Dowdy as teaching this feature appears in a claim chart without further explanation. *See* Pet. 31; *see also id.* at 27 ("Dowdy discloses a video imaging system for an endoscope including a camera head . . ."). Accordingly, we are not persuaded that Petitioner has provided adequately articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *See Kahn*, 441 F.3d at 988.

In view of the foregoing, we determine that Petitioner has not established a reasonable likelihood of prevailing in showing that independent claim 1 would have been obvious over Endsley and Dowdy. Claims 2–6 depend from claim 1. We, therefore, also determine that Petitioner has not established a reasonable likelihood of prevailing in showing that these dependent claims would have been obvious over Endsley and Dowdy.

E. Obviousness over Endsley and Adler

Petitioner asserts that claims 1–6, 8, and 9 are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Endsley and Adler. Pet. 37–48. As noted above, we find that Endsley does not disclose a camera head as required by claim 1.

Petitioner also appears to contend that Adler alternatively teaches the recited camera head. *See* Pet. 42 (claim chart citing Ex. 1004, 9:24–38, Fig. 1). Based on the cited portion of Adler, we are persuaded that Adler alternatively teaches the recited camera head. *See id.*; Ex. 1004, 9:24–38, Fig. 1.

It is not sufficient, however, for Petitioner to demonstrate that each of the components is known. *See KSR*, 550 U.S. at 418. Petitioner must also provide “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Kahn* at 988. In that regard, Petitioner does not provide a persuasive rationale for combining Endsley and Adler to obtain the recited camera head (i.e., an endoscopic video camera). Petitioner’s citation to Adler as teaching this feature appears in a claim chart without further explanation. *See* Pet. 42; *see also id.* at 38 (“Adler teaches a video imaging system specifically for an endoscope, comprising a *camera head . . .*”). Accordingly, we are not persuaded that Petitioner has provided adequately articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *See Kahn* at 988.

In view of the foregoing, we determine that Petitioner has not established a reasonable likelihood of prevailing in showing that independent claim 1 would have been obvious over Endsley and Adler. Claims 2–6, 8, and 9 depend from claim 1. We, therefore, also determine that Petitioner has not established a reasonable likelihood of prevailing in showing that these dependent claims would have been obvious over Endsley and Adler.

F. Obviousness over Endsley, Dowdy, and Adler

Petitioner asserts that claims 8 and 9 are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Endsley, Dowdy, and Adler. Pet. 48–50. As noted above, we find that Endsley does not disclose a camera head as required by claim 1 and we find that Petitioner does not provide a sufficient rationale to combine Endsley and Dowdy or Endsley and Adler. Combining these three references does not make up for the

deficiencies of the combinations of Endsley and Dowdy and/or Endsley and Adler. Thus, upon review of the proposed ground of obviousness over Endsley, Dowdy, and Adler against claims 8 and 9, we are not persuaded that Petitioner has established a reasonable likelihood that it would prevail in its challenge to claims 8 and 9 on this ground.

G. Obviousness over Endsley, Dowdy, and TI-LVDS

Petitioner asserts that claims 8 and 9 are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Endsley, Dowdy, and TI-LVDS. Pet. 50–53. As noted above, we find that Endsley does not disclose a camera head as required by claim 1 and we find that Petitioner does not provide a sufficient rationale to combine Endsley and Dowdy. TI-LVDS does not make up for the deficiencies of Endsley and Dowdy. Thus, upon review of the proposed ground of obviousness over Endsley, Dowdy, and TI-LVDS against claims 8 and 9, we are not persuaded that Petitioner has established a reasonable likelihood that it would prevail in its challenge to claims 8 and 9 on this ground.

H. Obviousness over Endsley, Adler, and King

Petitioner asserts that claims 1–6 are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Endsley, Adler, and King. Pet. 53–57. As noted above, we find that Endsley does not disclose a camera head as required by claim 1 and we find that Petitioner does not provide a sufficient rationale to combine Endsley and Adler.

Petitioner states that “it would have been obvious to one of ordinary skill in the art to combine Endsley, Adler, and King because the combination would involve[] applying a known technique to a known device ready for

improvement to yield a predictable result.” Pet. 56–57. Petitioner further states that “King discloses the use of multiple camera heads, which could be of different types because each is provided with its own set of timing and control signals.” *Id.* at 56 (citing Ex. 1006, 6:47–55.). However, Petitioner has not explained why one of ordinary skill in the art relating to endoscopic cameras would look to a camera such as Endsley, which is suitable for videoconferencing. *See* Ex. 1003, 3:17–21. As to whether the combination would be a “simple substitution,” Petitioner has not explained sufficiently why, or identified evidence that shows, the invention described in the ’530 patent falls into a very predictable field, or that one of ordinary skill in the art would have possessed the requisite skills to make the proposed combination, or that one of ordinary skill in the art would have anticipated reasonably the combination to function in an ordinary and expected way.

Thus, King does not make up for the deficiencies of Endsley and Adler. Upon review of the proposed ground of obviousness over Endsley, Adler, and King against claims 1–6, we are not persuaded that Petitioner has established a reasonable likelihood that it would prevail in its challenge to claims 1–6 on this ground.

I. Obviousness over Endsley, USB 1.0, Dowdy, and King

Petitioner asserts that claims 1–6 are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Endsley, USB 1.0, Dowdy, and King. Pet. 57. As noted above, we find that Endsley does not disclose a camera head as required by claim 1; we find that Petitioner does not provide a sufficient rationale to combine Endsley and Dowdy; and we find that King does not provide an articulated reason to combine Endsley with an endoscopic camera.

King and USB 1.0 do not make up for the deficiencies of Endsley and Dowdy. Thus, upon review of the proposed ground of obviousness over Endsley, USB 1.0, Dowdy, and King against claims 1–6, we are not persuaded that Petitioner has established a reasonable likelihood that it would prevail in its challenge to claims 1–6 on this ground.

III. CONCLUSION

For the foregoing reasons, we are not persuaded that Petitioner has demonstrated a reasonable likelihood that it would prevail on any of the challenges to patentability of the '530 patent set forth in the Petition.

IV. ORDER

For the reasons given, it is

ORDERED that the Petition is *denied* as to all challenged claims, and no trial is instituted.

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