

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 IPR2015-00672
Patent 7,471,310 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 1–16, 19–22, 25, and 26 of U.S. Patent No. 7,471,310 (Ex. 1001, “the ’310 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 Matter

The parties identify the following case involving the ’310 patent: *Karl Storz Endoscopy-Am., Inc. v. Stryker Corp.*, Case No. 3:14-cv-00876-RS (N.D. Cal., Feb. 26, 2014). Pet. 1. The parties also identify seven other pending requests for *inter partes* review involving the ’310 patent or a patent related to the ’310 patent. Pet. 1, 2.

B. The ’310 Patent

The ’310 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 1–16, 19–22, 25, and 26 of the '310 patent.

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

1. A video imaging system comprising:
 - a camera control unit processing a continuous stream of digital video data;
 - a cable, connected to said camera control unit, for transmitting the stream of digital video data to said camera control unit; and
 - a camera head, connected to said cable, for providing the stream of digital video data, said camera head including:
 - an imager, for generating an analog stream of video data;
 - a timing generator, generating a timing signal particular to said camera head, the timing signal actuating said imager and sent to said camera control unit;
 - a converter, for converting the analog stream of video data into the stream of digital video data;
 - a serializer, for serializing the stream of digital video data for transmission over said cable;
 - at least one digital serial driver;
 - a processor; and
 - a memory device, accessible by said processor, containing camera head information;
- said camera control unit having at least one digital serial receiver and is controlled based at least in part upon said timing signal particular to said camera head.

Ex. 1001, 9:17–39.

D. Prior Art Relied Upon

Petitioner relies upon the following prior art references:

Endsley	US 6,005,613	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, Rev. 1.0 (Jan. 1996) [hereinafter “USB 1.0”] (Ex. 1008)

E. Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability:

Challenged Claims	Basis	References
1–3, 6, 9–12, 15, and 16	§ 102	Endsley
1–3, 6, 9–12, 15, and 16	§ 103	Endsley and USB 1.0
1–3, 6, 9–12, 15, 16, 21, and 22	§ 103	Endsley and Dowdy
4, 5, 7, 8, 13, 14, 19, 20, 25, and 26	§ 103	Endsley, Dowdy, and TI-LVDS
1–16, 19–22, 25, and 26	§ 103	Endsley and Adler
1–16, 19–22, 25, and 26	§ 103	Endsley, Adler, and King
1–3, 6, 9–12, 15, 16, 21, and 22	§ 103	Endsley, USB 1.0, Dowdy, and King

II. ANALYSIS

I. *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 preambles of independent claims 1, 9, 15, and 21 recite “[a] video imaging system.” Ex. 1001, 9:17, 60, 10:32, 62. Asserting that “the patent claims do not have meaning removed from the context of the disclosure,” Patent Owner contends that the preambles are 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.* at 6. In support of its contention, Patent Owner explains:

The specification 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 evokes [sic] medical imaging in the minds of those of skill in the art. The specification describes numerous issues and characteristics unique to the field of video endoscopy.

Id. at 6 (internal citation omitted).

Petitioner, on the other hand, contends that the preambles are not limiting because the recited video imaging system “describes only the intended use.” 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.*

Each of the bodies of independent claims 1, 9, 15, and 21 recites a system that includes a camera control unit, a cable, and a camera head. Each recited camera head includes some combination of the following components: an imager, a timing generator, a converter, a serializer, a digital serial driver, a processor, and a memory device. The recited systems correspond at least to the embodiment shown in Figure 1 of the ’310 patent, which illustrates a “camera head, universal cable and camera control unit.” Ex. 1001, 4:45–47. Figure 1 shows that the camera head includes an imager, a converter, a timing generator, a multiplexer, a

processor, a memory, a serializer, and a driver. *See id.*, Fig. 1. Thus, each of the bodies of claims 1, 9, 15, and 21 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 1359 at 1366). Accordingly, based on the record before us, we determine that the preambles of claims 1, 9, 15, and 21 do not recite any essential structure not already recited in the bodies of these claims.

In view of the foregoing, we agree with Petitioner that the preambles of claims 1, 9, 15, and 21 are non-limiting.

2. “camera head”

Independent claims 1, 9, 15, and 21 recite “a camera head.” Ex. 1001, 9:23, 66, 10:38, 11:1. 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 claims 1, 9, 15, and 21 further “recite[] that the camera head must provide a ‘stream of digital video

data’ and the camera control unit processes a ‘continuous stream of digital video data.’” Pet. 6. Given these further recitations, 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) representing 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 . . . at least in part because dependent claim 21 is narrower in requiring an endoscope.” *Id.* at 6. According to Petitioner, “[i]f a ‘camera head’ in claim 1 was limited to an endoscopic video camera, then the quoted language from claim 21 would be redundant.” *Id.* We are unpersuaded by Petitioner’s contention in this regard. Petitioner does not direct us to any evidence showing that an endoscopic video camera necessarily is or includes an endoscope.

Petitioner further 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 7. We also are unpersuaded by Petitioner’s contention in this regard. As discussed above, we construe claims *in light of the specification*. See *Cuozzo*, 2015 WL 4097949, at *7–8. As Patent Owner points out, the Specification defines “camera head” as an endoscopic video camera. Prelim. Resp. 8 (citing Ex. 1001, 1:18, 19).

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.” *Id.* (emphasis omitted). On this record, we agree with Patent Owner. See Ex. 1001,

1:15–17 (“[c]oupling of video imaging cameras (incorporating solid-state imagers) to endoscopes”), 11:1 (“a camera head, connected to said cable and an endoscope”).

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.

II. 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 1–3, 6, 9–12, 15, and 16 are unpatentable under 35 U.S.C. § 102 as anticipated by Endsley. Pet. 23. 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 John R. Grindon, who has been retained as an expert witness by Petitioner for the instant proceeding. Ex. 1009.

Endsley describes a multi-mode digital camera capable of interfacing with a computer. Ex. 1003, Abstract, 3:7–9, Fig. 2. Independent claims 1, 9, 15, and 21

recite “a camera head.” Petitioner relies on Endsley’s camera. *See* Pet. 10; Ex. 1009 ¶ 56. 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 ¶ 56 (citing Ex. 1003, Fig. 2).

We have reviewed the proposed ground of anticipation by Endsley against claims 1–3, 6, 9–12, 15, and 16, and we are not persuaded that Petitioner has established a reasonable likelihood that Petitioner would prevail in its challenge to claims 1–3, 6, 9–12, 15, and 16 on this ground.

III. Obviousness over Endsley and USB 1.0

Petitioner asserts that claims 1–3, 6, 9–12, 15, and 16 are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Endsley and USB 1.0. Pet. 25–28. As noted above, we find that Endsley does not disclose a camera head as required by claim 1. USB 1.0 does not make up for the deficiency of Endsley. Thus, upon review of the proposed ground of obviousness over Endsley and USB 1.0 against claims 1–3, 6, 9–12, 15, and 16, we are not persuaded that Petitioner has established a reasonable likelihood that it would prevail in its challenge to claims 1–3, 6, 9–12, 15, and 16 on this ground.

IV. Obviousness over Endsley and Dowdy

Petitioner asserts that claims 1–3, 6, 9–12, 15, 16, 21, and 22 are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Endsley

and Dowdy. Pet. 28–40. 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. 37 (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 relies on the following quotation from Dowdy as motivation to combine Endsley and Dowdy:

[a] camera head and endoscope are typically detachable as a unit from the control unit so that a variety of camera heads can be used with a single control unit. This offers a number of advantages. For example, if a first camera head fails, the control unit can be operated with another camera head while the first camera head is being serviced. Also, different types of camera heads, each of which may be most useful for certain procedures, can be used with a single control unit so as to avoid the expense of purchasing and maintaining multiple control units.

Pet. 36 (citing Ex. 1005, 1:25–34.) A fair reading of that quotation is that Dowdy suggests using other endoscopic camera heads (“useful for certain procedures”), not any general camera head, such as that taught by Endsley. Petitioner further states that “Dowdy also teaches the known technique of attaching an optical

endoscope to a camera head using a C-mount to adapt a video imaging system for use in video endoscopy.” Pet. 34 (citing Ex. 1009 ¶ 128 (Grindon Decl.)). To the contrary, Dowdy does not discuss adapting a general use camera for use in video endoscopy, nor does Petitioner or its declarant assert that a C-Mount is specifically designed for adapting general use cameras to video endoscopy. 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. 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 claims 1, 9, 15, and 21 would have been obvious over Endsley and Dowdy. Claims 2, 3, 6, 10–12, 16, 21, and 22 depend from claims 1, 9, and 15. 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.

V. *Obviousness over Endsley, Dowdy, and TI-LVDS*

Petitioner asserts that claims 4, 5, 7, 8, 13, 14, 19, 20, 25, and 26 are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Endsley, Dowdy, and TI-LVDS. Pet. 40–43. As noted above, we find that Endsley does not disclose a camera head as required by claim 1 and we find that Petitioner did 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 4, 5, 7, 8, 13, 14, 19, 20, 25, and 26, we are not persuaded that Petitioner has established a reasonable likelihood that Petitioner would prevail in its challenge to claims 4, 5, 7, 8, 13, 14, 19, 20, 25, and 26 on this ground.

VI. Obviousness over Endsley and Adler

Petitioner asserts that claims 1–16, 19–22, 25, and 26 are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Endsley and Adler. Pet. 43–53. 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. 37 (claim chart citing Ex. 1004, 9:24–38). 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.

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*, 441 F.3d 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 asserts that “the combination of Endsley and Adler for use in an endoscope would have involved merely combining known elements according to known methods to yield predictable results or the simple substitution of one known element for another to obtain predictable results.” Pet. 46. 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,” the Federal

Circuit explains, “[a]lthough predictability is a touchstone of obviousness, the ‘predictable result’ discussed in *KSR* refers not only to the expectation that prior art elements are capable of being physically combined, but also that the combination would have worked for its intended purpose.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1326 (Fed. Cir. 2009) (citing *KSR*, 550 U.S. at 398). Petitioner has not explained sufficiently why, or identified evidence that shows, the invention described in the ’310 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. *See Rothman v. Target Corp.*, 556 F.3d 1310, 1319–20 (Fed. Cir. 2009); *see also Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011) (obviousness requires the additional showing that a person of ordinary skill at the time of the invention would have selected and combined those prior art elements in the normal course of research and development to yield the claimed invention). 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 claims 1, 9, 15, and 21 would have been obvious over Endsley and Adler. Claims 2–8, 10–14, 16, 19, 20, 22, 25, and 26 depend from claims 1, 9, 15, and 21. 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.

VII. Obviousness over Endsley, Adler, and King

Petitioner asserts that claims 1–16, 19–22, 25, and 26 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 did 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 57 (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 ’310 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 1–16, 19–22, 25, and 26, we are not persuaded that Petitioner

has established a reasonable likelihood that it would prevail in its challenge to claims 1–16, 19–22, 25, and 26 on this ground.

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

Petitioner asserts that claims 1–3, 6, 9–12, 15, 16, 21, and 22 are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Endsley, USB 1.0, Dowdy, and King. Pet. 57, 58. As noted above, we find that Endsley does not disclose a camera head as required by claim 1; we also find that Petitioner did not provide a sufficient rationale to combine Endsley and Dowdy; and we find that King does not provide a motivation 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 1–3, 6, 9–12, 15, 16, 21, and 22, we are not persuaded that Petitioner has established a reasonable likelihood that it would prevail in its challenge to claims 1–3, 6, 9–12, 15, 16, 21, and 22 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 '310 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.

PETITIONER:

Robert A. Surrette
bsurrette@mcandrews-ip.com

Merle S. Elliott
melliott@mcandrews-ip.com

Christopher M. Scharff
cscharff@mcandrews-ip.com

Michael J. Carrozza
mcarrozza@mcandrews-ip.com

PATENT OWNER:

Wesley W. Whitmyer, Jr.
litigation@whipgroup.com

Michael J. Kosma
mkosma@whipgroup.com

Michael A. Lavine
mlavine@whipgroup.com