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Paper 7
Entered: April 16, 2021

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

MASIMO CORPORATION,
Patent Owner.

IPR2020-01526
Patent 6,771,994 B2

Before JOSIAH C. COCKS, ROBERT L. KINDER, and AMANDA F. WIEKER, *Administrative Patent Judges.*

KINDER, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314, 37 C.F.R. § 42.4

I. INTRODUCTION

A. Background

Apple Inc. ("Petitioner") filed a Petition requesting an *inter partes* review of claim 15 of U.S. Patent No. 6,771,994 B2 (Ex. 1001, "the '994 patent"). Paper 2 ("Pet."). Masimo Corporation ("Patent Owner") waived filing a Preliminary Response. Paper 6 ("PO Waiver").

We have authority to determine whether to institute an *inter partes* review, under 35 U.S.C. § 314 and 37 C.F.R. § 42.4. An *inter partes* review may not be instituted unless it is determined that "the information presented in the petition filed under section 311 and any response filed under section 313 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." 35 U.S.C. § 314 (2018); *see also* 37 C.F.R § 42.4(a) ("The Board institutes the trial on behalf of the Director.").

For the reasons provided below and based on the record before us, we determine that Petitioner has demonstrated a reasonable likelihood that Petitioner would prevail in showing the unpatentability of claim 15. Accordingly, we institute an *inter partes* review on all grounds set forth in the Petition.

B. Related Matters

The parties identify the following matters related to the '994 patent:

Masimo Corporation v. Apple Inc., Civil Action No. 8:20-cv-00048 (C.D. Cal.) (filed Jan. 9, 2020);

Apple Inc. v. Masimo Corporation, IPR2020-01520 (PTAB Aug. 31, 2020) (challenging claims of U.S. Patent No. 10,258,265 B1);

Apple Inc. v. Masimo Corporation, IPR2020-01521 (PTAB Sept. 2, 2020) (challenging claims of U.S. Patent No. 10,292,628 B1);

Apple Inc. v. Masimo Corporation, IPR2020-01523 (PTAB Sept. 9, 2020) (challenging claims of U.S. Patent No. 8,457,703 B2);

Apple Inc. v. Masimo Corporation, IPR2020-01524 (PTAB Aug. 31, 2020) (challenging claims of U.S. Patent No. 10,433,776 B2);

Apple Inc. v. Masimo Corporation, IPR2020-01536 (PTAB Aug. 31, 2020) (challenging claims of U.S. Patent No. 10,588,553 B2);

Apple Inc. v. Masimo Corporation, IPR2020-01537 (PTAB Aug. 31, 2020) (challenging claims of U.S. Patent No. 10,588,553 B2);

Apple Inc. v. Masimo Corporation, IPR2020-01538 (PTAB Sept. 2, 2020) (challenging claims of U.S. Patent No. 10,588,554 B2); and

Apple Inc. v. Masimo Corporation, IPR2020-01539 (PTAB Sept. 2, 2020) (challenging claims of U.S. Patent No. 10,588,554 B2).

Pet. 68; Paper 3, 2.

The parties further identify certain pending patent applications, as well as other issued applications, that claim priority to, or share a priority claim with, the '994 patent. Paper 3, 1.

C. The '994 Patent

The '994 patent is titled "Pulse Oximeter Probe-Off Detection System," and issued on August 3, 2004, from U.S. Patent Application No. 10/374,303, filed February 24, 2003. Ex. 1001, codes (21), (22), (45), (54). The '994 patent claims priority through a series of applications to Provisional Application No. 60/140,000, filed June 18, 1999. *Id.* at codes (60), (62).

The '994 patent relates to a pulse oximeter probe that detects when a probe has become dislodged from a patient or that acts to prevent a potential probe-off condition. Ex. 1001, code (57). The '994 patent relies on electrical contacts that contact the skin of a patient when the probe is properly attached and a number of louvers placed in front of a sensor's photodetector to filter out oblique light rays that do not originate from a point in front of the detector. *Id.* According to one aspect of the invention, if the emitter and photodetector are not properly aligned, the photodetector will not produce a signal within the valid operating range of the pulse oximeter, which may trigger an alarm or warning. *Id.*

As depicted in Figure 1 below, pulse oximeter 140 is attached through connector 142 to probe 110 and probe 110 comprises LEDs 112, 114, which are "preferably configured to produce different wavelengths of light." *Id.* at 3:21–55, Fig. 1.

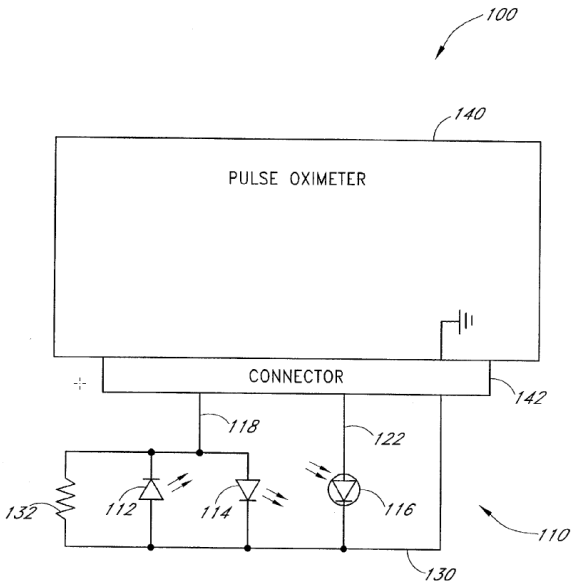

FIG. 1

Figure 1 illustrates a schematic of a pulse oximeter system. *Id.* at 2:30–31. The wavelengths of light pass through the flesh of a patient to be detected by

photodetector 116. *Id.* at 3:34–37, Fig. 1. The '994 patent describes certain embodiments where the photodetector is placed opposite the light emitters to detect transmitted light as it emerges from the user's body tissue. *See id.*, 1:41–43 (describing the configuration of known pulse oximetry probes as positioning the detector "opposite the LED"), 4:19–25 ("the emitters located within the probe are spaced opposite the detector assembly 235 . . . such that the light from the emitters passes . . . through the finger 250 and is incident upon the detector assembly 235"), Figs. 2A–B, 4, 5A–B.

As illustrated in Figure 5B below, if probe 202 is properly attached emitter aperture 220 will be directly in front of detector assembly 235 and light rays will pass directly through louvers 502 along direct path 510. *Id.* at 6:29–33.

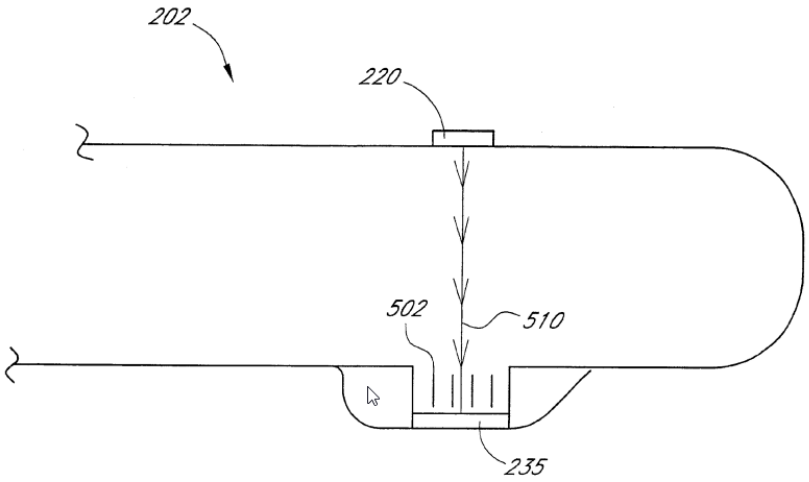

FIG.5B

Figure 5B illustrates a properly attached probe wherein a number of louvers (502) are placed in front of the detector assembly. Ex. 1001, 2:60–62.

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