

NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

SLINGSHOT PRINTING LLC,
Appellant

v.

CANON U.S.A., INC., CANON INC.,
Appellees

2025-1033, 2025-1034

Appeals from the United States Patent and Trademark
Office, Patent Trial and Appeal Board in Nos. IPR2023-
00312, IPR2023-00313.

Decided: July 16, 2026

RAYINER HASHEM, MoloLamken LLP, Washington, DC,
argued for appellant. Also represented by KAYVON
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JULIE S. GOLDEMBERG, Morgan, Lewis & Bockius LLP,
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Before CHEN, HUGHES, and CUNNINGHAM, *Circuit Judges*.
CHEN, *Circuit Judge*.

Slingshot Printing LLC (Slingshot) appeals two final written decisions of the Patent Trial and Appeal Board (Board) finding claims 1–17 of U.S. Patent No. 7,484,823 ('823 patent) and claims 1–15 of U.S. Patent No. 7,594,708 ('708 patent) unpatentable under 35 U.S.C. § 103.¹ *Canon U.S.A., Inc. v. Slingshot Printing LLC*, No. IPR2023-00312, 2024 WL 3678426 (P.T.A.B. Aug. 6, 2024) ('823 *Patent Decision*); *Canon U.S.A., Inc. v. Slingshot Printing LLC*, No. IPR2023-00313, 2024 WL 3585542 (P.T.A.B. July 30, 2024) ('708 *Patent Decision*). We affirm.

BACKGROUND

The '823 and '708 patents concern the use of temperature sensors to monitor and regulate temperature on a per-thermal region basis in an inkjet printer. Claim 1 of the '823 patent is representative. It recites, “[a] chip for use with a printing device, comprising,” in part, “region[s]” between “heater array[s],” in which each region contains “a temperature sensing element,” that “is substantially centrally disposed with respect to the region” and is “operable to sense a temperature of the region.” '823 patent at claim 1. The heater arrays “are operable to receive heating responsive to the temperature of the region sensed by the temperature sensing element, . . . wherein the received heating regulates the temperature of the region.” *Id.*

¹ The '823 and '708 patents have relevantly similar specifications. For this reason, this opinion will cite to the '823 patent unless otherwise warranted.

Canon U.S.A., Inc. and Canon Inc. (Canon) filed two *inter partes* review petitions. The first petition challenged claims 1–17 of the '823 patent, and the second petition challenged claims 1–15 of the '708 patent. The Board determined all challenged claims would have been obvious in view of Benjamin² and Giere673,³ among other references. '823 *Patent Decision*, 2024 WL 3678426, at *14; '708 *Patent Decision*, 2024 WL 3585542, at *16.

Slingshot appealed the Board's decision. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

Obviousness is a question of law with underlying factual findings. *HTC Corp. v. Cellular Commc'ns Equip., LLC*, 877 F.3d 1361, 1369 (Fed. Cir. 2017) (citation omitted). We review factual findings under the substantial evidence standard, while the legal conclusion of obviousness is reviewed de novo. *Id.* (citation omitted).

First, Slingshot asserts that the Board impermissibly relied on hindsight in finding that the combination of the prior art rendered obvious the monitoring and regulating temperature per thermal region limitation. Appellant Br. 39–40. Specifically, Slingshot contends that the Board improperly relied on the '823 patent itself, but the Board relied on the '823 patent's background section solely for admissions regarding what was already known in the art. Further, Slingshot attacks the individual references, when the finding of unpatentability is predicated upon a combination of references. *See In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) (citation omitted).

² U.S. Patent No. 7,384,113 (Benjamin).

³ U.S. Patent No. 6,612,673 (Giere673).

Slingshot also claims that Yabe⁴ teaches away from the claimed invention, Appellant Br. 43–45, but Slingshot did not raise this argument below against the Benjamin-Giere673 combination. *See* J.A. 439. In any event, Yabe merely states that placing temperature sensors on one side of the heater chip “make[s] it unnecessary to provide the [sensor] on . . . the central portion of each ink supply port.” Yabe col. 15 ll. 51–61. That language does not rise to the level of teaching away. *See Galderma Lab’s, L.P. v. Tolmar, Inc.*, 737 F.3d 731, 738 (Fed. Cir. 2013) (citation omitted).

Slingshot argues that a skilled artisan would not be motivated to place Giere673’s thermal sense resistors (TSRs) in Benjamin’s regions because of the costs of additional TSRs and because Benjamin already discloses a way of measuring the temperature of the substrate with one TSR. Appellant Br. 52–54. However, Slingshot fails to reckon with the Board’s finding that the benefit of a more accurate temperature measurement to optimize print quality would outweigh purported cost concerns. *’823 Patent Decision*, 2024 WL 3678426, at *10.

The Board also reasonably found that the prior art combination taught the temperature sensor to be “substantially centrally disposed” within the region. The Board relied, in part, on expert testimony that explained that Giere673 taught the legs of the sensor to be “equidistant” and “approximately 680 μm inboard from” the heater arrays, making the sensor “centrally disposed.” *Id.* at *12.

CONCLUSION

We have considered Slingshot’s remaining arguments and find them unpersuasive. For the foregoing reasons, we affirm.

⁴ U.S. Patent No. 6,527,367.

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AFFIRMED

COSTS

No costs.