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57040	7590	06/24/2020	EXAMINER	
OFS Fltel, LLC (FORMERLY FURUKAWA ELECTRIC NORTH AMERICA, INC.) 2000 NORTHEAST EXPRESSWAY NORCROSS, GA 30071			LEPISTO, RYAN A	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte TRISTAN KREMP, PAUL S. WESTBROOK, and
TOMMY GEISLER

Appeal 2019-006089
Application 15/678,719
Technology Center 2800

Before ADRIENE LEPIANE HANLON, JEFFREY T. SMITH, and
N. WHITNEY WILSON, *Administrative Patent Judges*.

SMITH *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1–7, which constitute all the claims pending in this application. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as OFS Fitel, LLC. Appeal Br. 2.

STATEMENT OF THE CASE

Appellant's invention is generally directed to a single-mode optical fiber with a modified index caused by applying a spatial pattern that creates a refractive index perturbation. The single-mode optical fiber comprises a perturbed segment having an index perturbation that causes backscattering that is greater than Rayleigh scattering. (Spec. ¶ 14.) Independent claim 1 is representative of the appealed subject matter and is reproduced below:

1. A single-mode optical fiber having a modified index caused by applying a spatial pattern that creates a refractive index perturbation, the single-mode optical fiber comprising:

a perturbed segment having an index perturbation that causes backscattering that is more than three (3) decibels (dB) above Rayleigh scattering; and

a mode effective area that is no smaller than that of a standard single-mode fiber, the standard single-mode fiber being a G.652-compliant optical fiber.

Appeal Br. 13, Claims Appendix.

The following rejection of claims 1–7 under 35 U.S.C. § 103 as unpatentable over Johnston (US 9,982,531 B2; May 29, 2018) is presented for our review.²

OPINION

The Examiner rejects claims 1–7 as obvious over Johnston.

² The complete statement of the rejection on appeal appears in the Final Office Action. (Final Act. 4–5).

After review of the respective positions provided by Appellant and the Examiner, we AFFIRM the Examiner's rejection under 35 U.S.C. § 103 for substantially the same reasons provided by the Examiner. We limit our discussion to independent claim 1 as argued by Appellant. 37 C.F.R. § 41.37(c)(1)(iv). Claims 2–7 stand or fall with independent claim 1. We add the following for emphasis.

Appellant argues the Examiner has mischaracterized the teachings of Johnston in alleging that “Johnston teaches a high backscattering single-mode optical fiber.” (Appeal Br. 7–8.) Appellant argues Johnston teaches away from the use of a single mode optical fiber as required by the claimed invention and Johnston expressly discusses known disadvantages of using single-mode optical fibers in vertical seismic profiling (VSP). (Appeal Br. 9–11.)

Appellant's arguments are not persuasive of reversible error. Although it is recognized that Johnston discusses the disadvantages of utilizing **standard** single-mode fibers for VSP, the Johnston invention is directed to providing three or more reflectors in the fiber, or a continuous distribution of scatter sites with reflectivity varying with position, to produce an improved strain response. (Johnston, col. 4, ll. 62–65.) Appellant has not directed us to portions of Johnston that establish that its described novel invention is a multi-mode fiber. Appellant has not directed us to portions of Johnston that establish that its described novel invention is not a modified single-mode fiber. Appellant has not explained that the addition of reflectors to the fiber creates a fiber that is not a single-mode fiber.

For the foregoing reasons and those presented by the Examiner, we sustain the Examiner's obviousness determination.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1-7	103	Johnston	1-7	

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). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED