



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/902,059	05/24/2013	Micah Colen Isenhour	HI10-094	5416
21495	7590	09/25/2019	EXAMINER	
CORNING INCORPORATED INTELLECTUAL PROPERTY DEPARTMENT, SP-TI-3-1 CORNING, NY 14831			BLEVINS, JERRY M	
			ART UNIT	PAPER NUMBER
			2883	
			NOTIFICATION DATE	DELIVERY MODE
			09/25/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usdoCKET@corning.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICAH COLEN ISENHOUR,
DENNIS MICHAEL KNECHT, and JAMES PHILLIP LUTHER

Appeal 2018-001797
Application 13/902,059
Technology Center 2800

Before KAREN M. HASTINGS, CHRISTOPHER L. OGDEN, and
BRIAN D. RANGE, *Administrative Patent Judges*.

OGDEN, *Administrative Patent Judge*.

DECISION ON APPEAL¹

Appellant² appeals under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 1–3, 5–8, 13, 14, 21, and 23. We affirm.

¹ The appeal record includes the following: Specification, May 24, 2013 (“Spec.”); Final Office Action, Apr. 21, 2016 (“Final Action”); Appeal Brief, Sept. 20, 2016 (“Appeal Br.”); Examiner’s Answer, Oct. 20, 2017 (“Answer”); and Reply Brief, Dec. 10, 2017 (“Reply Br.”).

² Appellant is Corning Optical Communications LLC, which is the current name of the “applicant” as defined in 37 C.F.R. § 1.42. Appellant also identifies this entity as the real party in interest. *See* Appeal Br. 2.

BACKGROUND

Appellant’s invention “is directed to field-installable fiber optic connectors suitable for use with consumer electronics and related fiber optic cable assemblies.” Spec. ¶ 2. Independent claim 1, which we reproduce below, is representative:

1. A mechanical splice connector, comprising:
at least one body for receiving at least one field optical fiber;
a mechanical retention component for securing at least one optical field fiber to the at least one body; and
at least one lens attached to the at least one body.

Appeal Br. 21 (emphases added). Claim 21 is also independent, and includes similar limitations. *See id.* at 24. Claims 2–3, 5–8, 13, and 14 depend from claim 1, and claim 23 depends from claim 21. *Id.* at 15–18.

The Examiner rejects claims 1, 6, 8, 13, 14, 21, and 23 under 35 U.S.C. § 102(e) as being anticipated by Liao.³ Final Action 3–5. The Examiner rejects the remaining dependent claims under § 103(a) as unpatentable over Liao in view of either Shimotzu⁴ (claims 2, 5⁵) or Milette⁶ (claims 3 and 7). *Id.* at 5–7.

DISCUSSION

The Appeal Brief argues claims 1 and 21 together in the context of the § 102(e) rejection, and does not specifically address the dependent claims.

³ Liao et al., US 2010/0290745 A1 (published Nov. 18, 2010) (“Liao”).

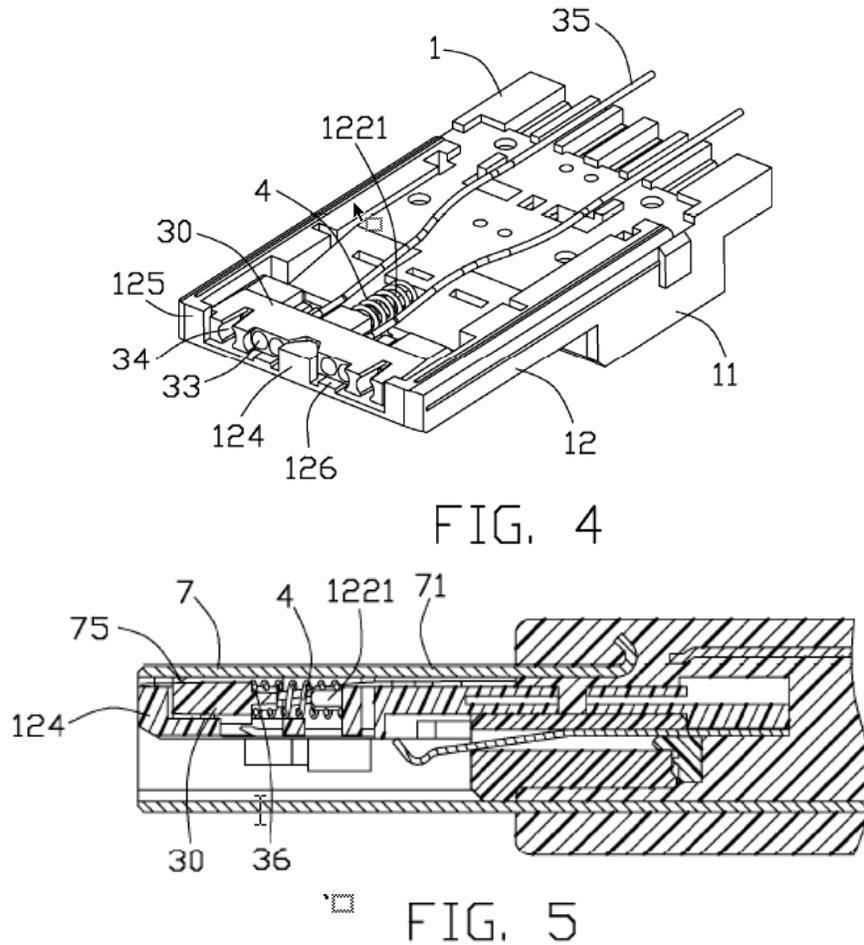
⁴ Shimotsu et al., WO 2009/030982 A2 (published Mar. 12, 2009) (“Shimotsu”).

⁵ The Examiner also included claim 24, which does not exist. *See* Final Action 5.

⁶ Milette et al., US 2010/0046892 A1 (published Feb. 25, 2010) (“Milette”).

See Appeal Br. 19–20. Therefore, we focus our decision on the common features of claims 1 and 21. See 37 C.F.R. § 41.37(c)(1)(iv).

Figures 4 and 5 of Liao, which we reproduce below, depict an optical connector in partial assembly and cross-sectional views, respectively:



Liao ¶¶ 14–15. Figure 4 depicts insulative housing 1 including base portion 11 and fiber grooves 111 (not labeled). *Id.* ¶ 23. There are “a pair of [optical] fibers 35 attached to the main body 30 and received in the fiber grooves 111.” *Id.* ¶ 25. Main body 30 slides along blocks 123 in a front-to-back direction, but compression coil spring 4 biases main body 30 in the forward direction (also shown in Fig. 5). *Id.* There is also “a set of lenses 33 attached to the main body 30.” *Id.* Figure 5 depicts metal shell 7 on the top of the

assembled connector. *Id.* ¶ 26. Although not labeled, Figure 5 also depicts “plastic case 9 surrounding . . . metal shell 7.” *Id.* ¶ 22.

The Examiner finds that Liao discloses each limitation of claim 1. *See* Final Action 2–3; *see also* Answer 6. In particular, the Examiner finds that Liao discloses lens 33 as being indirectly “attached” to body 9. Final Action 2. According to the Examiner, “element 30 is attached to the shell 7, and thus the element 30 is attached to the body 9, and . . . the lens 33 is attached to the body 9. The present claim language does not require that the lens be directly attached to the body.” *Id.*

The Examiner also finds that Liao teaches a “mechanical retention component” comprising portions of elements 7 and 11, which secures optical fibers 35 to body 9. Final Action 3; *see also* Answer 6–7. Alternatively, the Examiner also finds that “fiber 35 is attached to element 30,” and thus is secured to body 9 for the same reason that lens 33 is attached to body 9. *See* Final Action 2 (citing Liao ¶ 25).

In response, Appellant makes the following arguments: (1) that Liao does not disclose a lens attached to a body according to the plain meaning of the word *attached*, and (2) that Liao does not disclose the recited mechanical retention component. We address these arguments in turn, below.

A. Whether Liao discloses “at least one lens attached to the at least one body”

Appellant argues that the Examiner erred in finding that lenses 33 are “attached” to case 9, because lenses 33 in Liao are floatable with respect to the other components. *See* Appeal Br. 13; *see also id.* at 14–16 (pointing to evidence in Liao that main body 30, to which lenses 33 are directly attached, is floatable with respect to metal shell 7 and case 9). According to Appellant,

the plain meaning of the word *attached* in claims 1 and 21 is “that the at least one lens is joined or fastened to the [at] least one body.” Appeal Br. 16.⁷ In addition, Appellant argues that lenses 33 must “be a portion of plastic case 9,” *id.* at 14, or at least that lenses 33 are not “free to float within the connector 100, including the plastic case 9,” *id.* at 16.

The Examiner does not dispute Appellant’s evidence that Liao’s main body 30 is floatable with respect to the other components. However, the Examiner suggests that in light of the Specification, “[r]eading the word ‘attached’ as meaning ‘so as not to allow for movement’ is an unduly narrow interpretation of the word.” Answer 3. As evidence, the Examiner points to the Appeal Brief, in which Appellant identifies, as an embodiment of claims 1 and 21 in the Specification, a connector in which the lenses are similarly floatable. *See* Answer 3. The Specification depicts this embodiment in Figure 9, which we reproduce below:

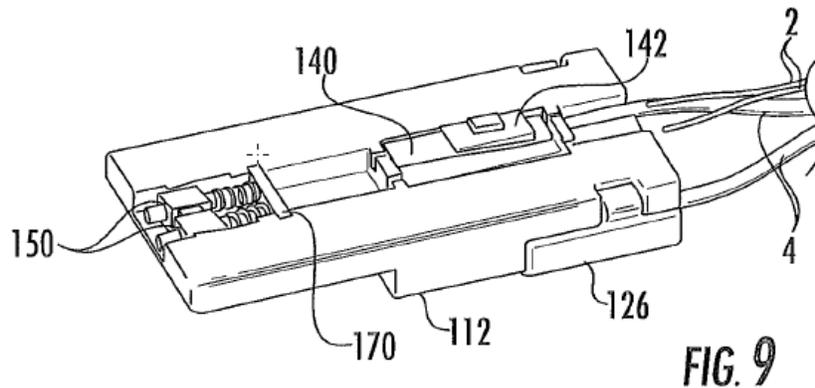


Figure 9 is a perspective view depicting lenses 150 joined by springs 178 (not labeled) to spring push 170, all of which are held in a retention slot formed in body 112. *See* Spec. ¶ 51. Figure 10, which we do not reproduce

⁷ The Examiner agrees that *attached* means “joined or fastened.” *See* Answer 4.

here, is an exploded view of the same embodiment. *See id.* ¶ 52. According to the Examiner,

The lens is identified as element 150 and the body is identified as element 112. These elements are clearly shown in Figs. 9 and 10 as being attached via springs 178 (see Spec. [0051–0052]). Appellant’s lens 150 is attached, yet allowed to move because of spring 178. This is nearly the identical arrangement of the Liao lens which is attached, yet allowed to move because of spring 4 (see Liao Fig. 4).

Answer 3.

In response, Appellant argues that the section in the Appeal Brief identifying this embodiment as falling within the scope of claims 1 and 21 was the result of “typographical errors.” Reply Br. 7 (emphasis omitted). According to Appellant, “the errors referenced embodiments in the application that are not covered by the present claims.” *Id.* Thus, Appellant submits a “correction” referring to other embodiments in the Specification than the one containing the floatable lenses. *Id.* at 9–10. In one of these embodiments, the Specification discloses that “the lens components 55 may be integrally formed with the body 12 as a single component.” Reply Br. 8 (quoting Spec. ¶ 44).

Absent a showing of good cause, the Board does not consider new arguments raised in a reply brief unless they are responsive to a position or ground of rejection in the Examiner’s Answer. *See* 37 C.F.R. § 41.41(b)(2). The Examiner relied on Appellant’s original Summary of the Claimed Subject Matter as an admission that features found in Figures 9 and 10 of the Specification embody claims 1 and 21. *See* Answer 3. Appellant describes this admission as a “typographical error,” but the change represents a shift in the substance of Appellant’s its original position. Because Appellant did not

include this position in the Appeal Brief, the Examiner did not have the opportunity to respond to it in the Answer. Therefore, Appellant has not shown good cause for introducing the new material in the Reply Brief, and we do not consider it in this appeal.

Appellant's admission in the Appeal Brief is relevant to the construction of the term *attached*. See *Fenner Invs., Ltd. v. Cellco P'ship*, 778 F.3d 1320, 1323 (Fed. Cir. 2015) ("Any explanation, elaboration, or qualification presented by the inventor during patent examination is relevant, for the role of claim construction is to 'capture the scope of the actual invention' that is disclosed, described, and patented." (quoting *Retractable Techs., Inc. v. Becton, Dickinson & Co.*, 653 F.3d 1296, 1305 (Fed. Cir. 2011))). Moreover, even if we were to disregard Appellant's admission in the Appeal Brief, we agree with the Examiner that Figures 9 and 10 embody a mechanical splice connector falling within the scope of claims 1 and 21. During prosecution and on appeal, "claims are given their broadest reasonable interpretation consistent with the specification." *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1256 (Fed. Cir. 2007) (quoting *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000)).

Under the broadest reasonable interpretation, the term *attached* does not require direct attachment. In the embodiment of Figures 9 and 10, lens 150 attaches indirectly to body 112, through springs 178 and spring push 170. Appellant does not point to anything in the Specification suggesting, to the contrary, that this embodiment is not within the scope of claims 1 and 21. Thus, Appellant has not shown reversible error in the Examiner's finding that Liao discloses "at least one lens attached to the at least one body" as recited in claims 1 and 21.

- B. Whether Liao discloses “a mechanical retention component for securing at least one optical field fiber to the at least one body”

Next, Appellant argues that the Examiner erred in finding that Liao discloses “a mechanical retention component for securing at least one optical field fiber to the at least one body” as recited in claims 1 and 21. According to Appellant, “[n]owhere in Liao are the optical fibers 35 illustrated or described as being attached to the plastic case 9.” Appeal Br. 18. Further, Appellant argues that “[i]n no way do the first and second metal shells 7 and 8 secure the optical fibers to the plastic case 9 (i.e., the at least one body).” *Id.* Appellant also argues that fibers 35 attach to main body 30, and again relies on the fact that main body 30 is a floating component:

[T]he main body 30 of the optical module 3 floats with respect to the insulative housing 1. Therefore, according to the express teachings of Liao, the insulative housing 1 and its base portion 11 do not and cannot “secure at least one optical field fiber to the at least one body.”

Appeal Br. 19.

For similar reasons as those discussed above in part A, the broadest reasonable interpretation of the claim language does not require a *direct* attachment between the optical fibers and the body. Rather, the claim language only requires a “mechanical retention component” for “securing” the fiber to the body. We agree with the Examiner that in Liao, “optical fibers 35 are mechanically retained by at least base portion 11 of insulative housing 1 and metal shell 7, because metal shell 7 directly surrounds and is mechanically secured to base portion 11, having the optical fibers 35 mechanically secured therebetween.” Answer 6. Moreover, we agree with the Examiner that “body 9 integrally surrounds metal shell 7 and base portion 11.” *Id.* Thus, the preponderance of the evidence supports the

Examiner's finding that Liao's connector contains a mechanical retention component (combination of 7 and 11) that secures optical fiber 35 to base 9.

After the Examiner filed the Answer and before Appellant filed the Reply Brief, we issued a decision reversing the examiner's rejection in an appeal of Application No. US 13/902,039. *See Ex parte Isenhour*, No. 2016-002182, 2017 WL 4457665 (Oct. 2, 2017). Appellant argues that we "should look to and be guided by" the previous decision, to find that Liao omits the mechanical retention component recited in claims 1 and 12. Reply Br. 3. We disagree. In the prior appeal, the claims at issue included the limitation "where the mechanical retention component can move between an open position and a clamp position." *Isenhour* at *1. We held that the examiner failed to provide a sufficient rationale for why a person of ordinary skill in the art would have combined Liao's connector with the teachings of Shimotzu to achieve this limitation. *See id.* at *2. Because the present claims 1 and 21 do not include this limitation, the reason we reversed in the prior case is not pertinent to this appeal.

For the above reasons, and based on the Examiner's findings and conclusions as a whole, which we find persuasive, the preponderance of the evidence supports the Examiner's rejection, and Appellant has not shown reversible error. Therefore, we affirm the Examiner's decision as to all claims.

CONCLUSION

The following table summarizes the decision:

Claim Rejected	Basis	Affirmed	Reversed
1, 6, 8, 13, 14, 21, 23	§ 102(e) Liao	1, 6, 8, 13, 14, 21, 23	
2, 5	§ 103(a) Liao, Shimotzu	2, 5	
3, 7	§ 103(a) Liao, Milette	3, 7	
Overall Outcome		1–3, 5–8, 13, 14, 21, 23	

DECISION

The Examiner's decision is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended. *See* 37 C.F.R. §§ 1.136(a)(1)(iv), 41.50(f) (2018).

AFFIRMED