

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PIOTR MYSLINSKI
and
JACEK CHROSTOWSKI

Appeal No. 95-2399
Application 08/061,669¹

ON BRIEF

Before FLEMING, LEE and TORCZON, **Administrative Patent Judges**.
FLEMING, **Administrative Patent Judge**.

¹ Application for patent filed May 14, 1993.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1 through 3 and 5 through 10. Claim 4 has been canceled.

The invention relates to optical fiber connecting devices. In particular, Appellants disclose on page 5 of the specification that Figures 1 and 2 show a connector arrangement of the invention. In particular, Figures 1 and 2 show an optical element 70 which is affixed to the end face 39 of the plug 40.

The independent claim 1 is reproduced as follows:

1. A method of incorporating an optical element having two opposed optical end faces into an optical system having a first connector plug which terminates an optical fiber, a second connector plug which terminates another optical fiber, and an alignment adapter having a first port for receiving the first connector plug and a second port for receiving the second connector plug, the first and second plug end faces being engageable with another in an aligned, locked position within the alignment adapter, the method comprising the steps of:

applying an adhesive to at least one of an end face of the optical element and an end face of one of the connector plugs the optical element is to be joined with; and, joining the end face of the optical element with the end face of the connector plug so that the optical element completely covers an optical fiber that terminates at the connector plug end face, the adhesive joining the end face of the connector plug to the end face of the optical element so that the optical element is carried by the connector plug.

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The Examiner relies on the following references:

Palmer	4,431,260	Feb. 14, 1984
Bowen et al. (Bowen)	4,991,929	Feb. 12, 1991
Cammons et al. (Cammons)	5,082,345	Jan. 21, 1992

Claims 1 through 3 and 5 through 10 stand rejected under 35 U.S.C. § 103 as being unpatentable over Cammons in view of Palmer or Bowen.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the brief² and answer for the respective details thereof.

OPINION

We will not sustain the rejection of claims 1 through 3 and 5 through 10 under 35 U.S.C. § 103.

The Examiner has failed to set forth a **prima facie** case. It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the

² We note that Appellants filed a brief on September 16, 1994. The Examiner mailed on December 1, 1997 a notification of non-compliance stating that the brief does not contain a correct copy of the appealed claims. On December 30, 1997, Appellants filed a brief. The brief is the same brief as filed on September 16, 1994 with the exception of the appendix which contains a copy of the appealed claims. We note that the Examiner has entered this brief into the record.

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claimed invention by the express teachings or suggestions found in the prior art, or by implications contained in such teachings or suggestions. ***In re Sernaker***, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983). "Additionally, when determining obviousness, the claimed invention should be considered as a whole; there is no legally recognizable 'heart' of the invention." ***Para-Ordnance Mfg. v. SGS Importers Int'l, Inc.***, 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995), ***cert. denied***, 117 S.Ct. 80 (1996) ***citing W. L. Gore & Assocs., Inc. v. Garlock, Inc.***, 721 F.2d 1540, 1548, 220 USPQ 303, 309 (Fed. Cir. 1983), ***cert. denied***, 469 U.S. 851 (1984).

The Examiner states on page 4 of the answer that Cammons fails to teach applying an adhesive to a face of the optical element and a face of one of the connector plugs as recited by Appellants' claims. On page 5 of the answer, the Examiner states that Palmer or Bowen teaches this limitation. The Examiner states that "[i]t would have been obvious to provide the device of Cammons et al. with the index of material of Palmer or Bowen et al. in order to provide a direct join to an end face of an optical connector and affixing an end face of an optical

element to that end face." We note that the Examiner did not provide any reason for making this modification or any evidence in prior art to support the Examiner's conclusion.

Appellants argue on pages 6 through 9 of the brief that neither Palmer nor Bowen teaches or suggests using an adhesive between an end face of an optical element and an end face of a connector plug to provide an optical in-line element in a fiber optical system. Appellants further emphasize that Bowen does not teach the use of an adhesive at all.

Upon a detailed review of Bowen, we find that Bowen does not teach an adhesive but rather an index matching film material positioned within the connector receptacle. In column 4, lines 16-20, Bowen teaches that Figure 3 shows positioned within the alignment means 31 an index matching film 33. The end faces 16, 16' of the ferrules 15,15' form each of the plugs 10,10' and press against the film 33 which remains in receptacle housing 33 even after the plugs 10,10' are removed. Thus, Bowen does not teach an adhesive or an optical element having one face being affixed with an adhesive to an end face of one of the connector plugs as claimed by Appellants in claims 1 through 3 and 5 through 9. In addition, Bowen does not teach depositing a non-removable coating in the form of a thin film

optical element onto an end face of one of the connector plugs as recited in Appellants' claim 10.

Turning to Palmer, we find that Palmer does not teach using an adhesive to affix an optical element to an end face of one of the connectors or depositing a non-removable coating in the form of a thin film optical element onto an end face of one of the connector plugs as well. Palmer teaches in column 2, lines 33-37, that when an optical fiber is bent in the form of an arc, there is an increased tendency for light to escape from the bent region. Palmer teaches in column 2, lines 55-58, that his invention employs this phenomenon to provide an improved optical coupler for optical fibers. In column 4, lines 4-16, Palmer teaches affixing an optical fiber in a curve form 10 with epoxy resin 14 as shown in Figure 1. In column 4, lines 16-21, Palmer teaches that a small amount of the side of the fiber is removed by lapping a flat surface 18 into the epoxy 14, as shown in Figure 2. In column 5, lines 15-18, Palmer discloses that Figure 6 shows the side of a fiber 12 lapped to provide a planar surface 18'. Palmer teaches in column 4, lines 39-47, that two such assemblies as shown in Figure 2 are joined together using optically transparent epoxy to form the coupler 20 as shown in Figure 3.

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We agree that Palmer teaches the use of optically transparent epoxy. However, Palmer is using adhesive to join the sides of two optical fibers directly together. Palmer does not teach an optical element or the use of adhesive to affix an optical element to an end face of one of the connectors.

Appellants further argue on pages 4 through 6 that neither Cammons, Bowen nor Palmer suggests the desirability of making the combination. In particular, Appellants point out that Cammons teaches away from using an adhesive to affix the optical element to a connector plug end face.

The Federal Circuit states that "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." ***In re Fritch***, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992), ***citing In re Gordon***, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor." ***Para-Ordnance Mfg. v. SGS Importers Int'l***, 73 F.3d at 1087, 37 USPQ2d at 1239, ***citing W. L. Gore & Assocs., Inc. v. Garlock, Inc.***, 721 F.2d at 1551,

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1553, 220 USPQ at 311, 312-13, ***cert. denied***, 469 U.S. 851 (1984).

We agree that Cammons teaches an optical element 70 shown in Figure 2, but the Examiner has failed to show that the prior art suggested the desirability of the Examiner's proposed modification of using adhesive to affix the optical element 70 to a connector plug end face. Furthermore, we find that Cammons teaches in column 8, lines 17-44, that it is important that the optical element 70 is not affixed but allowed to move in the slot 61 so that there is freedom of longitudinal movement of the optical element 70 which is needed in the connection and disconnection of the plugs. Thus, Cammons suggests to those skilled in the art not to fix the optical element 70 to the connector plug end face.

We further note that the Examiner has not pointed to any evidence that those skilled in the art would have reason to make the modification. We are not inclined to dispense with proof by evidence when the proposition at issue is not supported by a teaching in a prior art reference or shown to be common

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knowledge of unquestionable demonstration. Our reviewing court requires this evidence in order to establish a **prima facie** case. **In re Knapp-Monarch Co.**, 296 F.2d 230, 232, 132 USPQ 6, 8 (CCPA 1961); **In re Cofer**, 354 F.2d 664, 668, 148 USPQ 268, 271-72 (CCPA 1966). Therefore, we find that the Examiner has failed to establish why one having ordinary skill in the art would have been led to the claimed invention by teachings or suggestions found in the prior art.

We have not sustained the rejection of claims 1 through 3 and 5 through 10 under 35 U.S.C. § 103. Accordingly, the Examiner's decision is reversed.

REVERSED

MICHAEL R. FLEMING)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
JAMESON LEE)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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RICHARD TORCZON)
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