



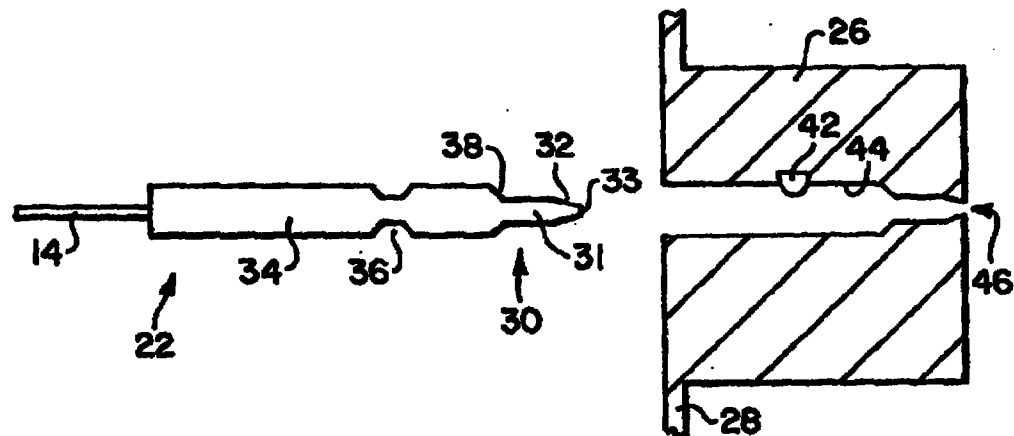
PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : G02B 6/42, 6/38	A1	(11) International Publication Number: WO 97/04341 (43) International Publication Date: 6 February 1997 (06.02.97)
<p>(21) International Application Number: PCT/US96/11671</p> <p>(22) International Filing Date: 12 July 1996 (12.07.96)</p> <p>(30) Priority Data: 08/502,068 14 July 1995 (14.07.95) US</p> <p>(71) Applicant: COGENT LIGHT TECHNOLOGIES, INC. [US/US]; 26145 West Technology Drive, Santa Clarita, CA 91355-1137 (US).</p> <p>(72) Inventor: ROLLER, Thomas, W.; 15784 Milne Court, Moorpark, CA 93021 (US).</p> <p>(74) Agents: REPPER, George, R. et al.; Rothwell, Figg, Ernst & Kurz, East Tower, Suite 701, Columbia Square, 555 13th Street, N.W., Washington, DC 20004 (US).</p>	<p>(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p>Published <i>With international search report.</i></p>	

(54) Title: **SNAP-IN PROXIMAL CONNECTOR FOR MOUNTING AN OPTIC FIBER ELEMENT INTO A LIGHT SOURCE SYSTEM**



(57) Abstract

The proximal connector (22) includes a stainless steel cone-shaped (32) ferrule (30) enclosing a proximal end of the optic fiber element. The ferrule is inserted within a matching aperture of a receiving block (26) which is also made of stainless steel. The matching shapes of the ferrule and the aperture of the receiving block ensure effective heat transference from the ferrule into the receiving block. Both ferrule (30) and the aperture (24) are axially symmetric such that any rotation of the proximal connector while inserted into the receiving block does not change the location of the entrance aperture of the optic fiber element. The proximal connector also includes a case (34) having an indented ring (36). A ball plunger biasing mechanism (42) is mounted within the aperture (24) of the receiving block and is positioned for engaging with the indented ring only while the proximal connector is fully and securely inserted within the aperture. The plunger prevents accidental removal of the proximal connector while also providing a biasing force for ensuring solid contact between the cone-shaped ferrule and the corresponding portions of the receiving block to further facilitate the heat conduction.